# William & Mary
# 2019-2020 Graduate Catalog
# Table of Contents

# William & Mary

# 2019-2020 Graduate Catalog

## August 2019

*The catalog provides announcements for the 2019-2020 academic year. It was produced by the Office of the University Registrar in cooperation with university administrative offices and is current until August 2020. The university reserves the right to make changes in the regulations, charges and curricula listed herein at any time.*

## Notice of Non-Discrimination

Unless otherwise constrained by law, William & Mary is committed to providing an environment for its students and employees that is free from discrimination based on any personal factor unrelated to qualifications or performance such as, without limitation, race or color, citizenship, national origin or ethnicity, ancestry, religion or creed, political affiliation or belief, age, sex or sexual orientation, gender identity or expression, disability, marital status, pregnancy status, parental status, height, weight, military service, veteran status, caretaker status, or family medical or genetic information.

Discriminatory harassment is a form of discrimination prohibited by university policy. Sexual violence is a form of harassment based on sex, and is a violation of William & Mary policy. See William & Mary's Title IX Notice. (https://www.wm.edu/offices/compliance/title_ix_coord/index.php)

William & Mary also provides reasonable accommodations for qualified individuals with disabilities as required by law.

The following persons have been designated to handle inquiries regarding the university's non-discrimination policies, to receive discrimination/ harassment complaints from members of the university community, and to monitor the institution's compliance with non-discrimination laws and regulations:

Pamela Mason, JD, MBA, CCEP
Chief Compliance Officer and Title IX Coordinator
109 James Blair Hall
William & Mary
Williamsburg, VA 23185
757-221-3167
**phmaso@wm.edu**

Carla Costello, EdD
ADA/504 Coordinator
108 James Blair Hall
William & Mary
Williamsburg, VA 23185
757-221-1254
**cacostello@wm.edu**

For William & Mary's full policy on discrimination and harassment (including sexual harassment), and more information about the university's policies and procedures (including grievance/complaint procedures), please visit the webpage for the Office for Compliance & Equity at https://www.wm.edu/offices/compliance/discrimination_overview/index.php.

## The University

William & Mary was founded by royal charter in 1693 and has a rich heritage. Academic excellence and rigor are evident at all levels of the institution, where more than 6,000 students pursue baccalaureate degrees and some 2,000 engage in graduate study. William & Mary's graduate offerings span five faculties and graduate schools, each of which has a section in this Catalog describing its programs, research, and courses. The links above provide university-level information on the institution, its academic policies, and some of the many services available to graduate students. All William & Mary graduate and professional students are subject to and entitled to these policies and services. Program-specific requirements can be found in the individual faculty or school sections on the left-hand menu.

## The University: About William & Mary

- Accreditation
- Correspondence Directory
- Mission Statement
- Goals
- Code of Ethics
- Diversity Statement
- Board of Visitors
- Directory of Administrative Offices

## Accreditation

William & Mary is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award bachelor's, master's, education specialist, and doctoral degrees. Contact the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097 or call 404-679-4500 for questions about the accreditation of William & Mary.

William & Mary is accredited by the Southern Association of Colleges & Schools Commission on Colleges (SACSCOC). Individual schools are accredited by the Association to Advance Collegiate Schools of Business (AACSB), the Council for the Accreditation of Educator Preparation (CAEP), and the American Bar Association (ABA). Programs within the School of Education are accredited by the National Association of School Psychologists (NASP) and the Council for Accreditation of Counseling and Related Educational Programs (CACREP). For more information, see the "Accreditation" page on the university's website (https://www.wm.edu/offices/iae/accreditation/index.php .)

## Correspondence Directory

*To facilitate prompt attention, inquiries should be addressed to the following at William & Mary, P.O. Box 8795, Williamsburg, Virginia 23187-8795.*

**Academic Affairs**
Peggy Agouris, *Provost*

**Admission - Undergraduate**
Timothy A. Wolfe, *Associate Vice President for Enrollment and Dean of Admission*

**Admission - Graduate Studies**
Virginia J. Torczon, *Dean of Graduate Studies and Research, Arts and Sciences*

**General Business Matters**
Samuel E. Jones, *Senior Vice President for Finance and Administration*

Amy Stoakley Sebring, *Vice President for Finance and Technology and Chief Financial Officer*

**Information Technology**
Courtney M. Carpenter, *Chief Information Officer*

Ken White, *Associate Dean for MBA and Executive Programs, Mason School of Business*

Leslie W. Grant, *Associate Dean for Academic Programs, School of Education*

Dexter A. Smith, *Associate Dean of Admissions, William & Mary Law School*

Linda Schaffner, *Associate Dean, School of Marine Science*

**Alumni Affairs**
Marilyn W. Midyette, *Executive Director, Alumni Association and Associate Vice President of Alumni Engagement*

**Auxiliary Services**
Cynthia A. Glavas, *Director*

**Bookstore**
Susan Lemerise, *General Manager*

**William & Mary Police**
Deborah Cheesbro, *Chief*

**Development, Annuities and Gifts**
Matthew T. Lambert, *Vice President for University Advancement*

**Diversity & Equal Opportunity**
W. Fanchon Glover, *Chief Diversity Officer*

**Fees and Expenses**
Melanie O'Dell, *Assistant Vice President, Financial Operations*

**International Studies**
Stephen E. Hanson, *Vice Provost for International Affairs and Director of the Reves Center for International Studies*

**Ombudsperson**
Tatia D. Granger, *Interim University Ombudsperson*

**Records and Transcripts**
Sara L. Marchello, *Associate Provost and University Registrar*

**Strategic Initiatives, University Governance, University Communications**
Henry R. Broaddus, *Vice President for Strategic Initiatives & Public Affairs*

**Student Employment, Student Loans, Financial Aid**
Joe Dobrota, *Director of Financial Aid*

**Student Life**
Virginia M. Ambler, *Vice President for Student Affairs*

**William & Mary Libraries**
Carrie L. Cooper, *Dean, University Libraries*

**Title IX Coordinator**
Pamela H. Mason, *Chief Compliance Officer, Title IX Coordinator*

## Mission Statement

William & Mary, a public university in Williamsburg Virginia, is the second-oldest institution of higher learning in the United States. Established in 1693 by British royal charter, William & Mary is proud of its role as the Alma Mater of generations of American patriots, leaders and public servants. Now, in its fourth century, it continues this tradition of excellence by combining the best features of an undergraduate college with the opportunities offered by a modern research university. Its moderate size, dedicated faculty, and distinctive history give William & Mary a unique character among public institutions, and create a learning environment that fosters close interaction among students and teachers.

The university's predominantly residential undergraduate program provides a broad liberal education in a stimulating academic environment enhanced by a talented and diverse student body. This nationally acclaimed undergraduate program is integrated with selected graduate and professional programs in five faculties -- Arts and Sciences, Business, Education, Law, and Marine Science. Masters and doctoral

programs in the humanities, the sciences, the social sciences, business, education, and law provide a wide variety of intellectual opportunities for students at both graduate and undergraduate levels.

At William & Mary, teaching, research, and public service are linked through programs designed to preserve, transmit, and expand knowledge. Effective teaching imparts knowledge and encourages the intellectual development of both student and teacher. Quality research supports the educational program by introducing students to the challenge and excitement of original discovery, and is a source of the knowledge and understanding needed for a better society. The university recognizes its special responsibility to the citizens of Virginia through public and community service to the Commonwealth as well as to national and international communities. Teaching, research, and public service are all integral parts of the mission of William & Mary

## Goals

In fulfilling its mission, William & Mary adopts the following specific goals:

- to attract outstanding students from diverse backgrounds;
- to develop a diverse faculty which is nationally and internationally recognized for excellence in both teaching and research;
- to provide a challenging undergraduate program with a liberal arts and sciences curriculum that encourages creativity, independent thought, and intellectual depth, breadth and curiosity;
- to offer high quality graduate and professional programs that prepare students for intellectual, professional and public leadership;
- to instill in its students an appreciation for the human condition, a concern for the public well-being, a life-long commitment to learning; and
- to use the scholarship and skills of its faculty and students to further human knowledge and understanding, and to address specific problems confronting the Commonwealth of Virginia, the nation and the world.

## Code of Ethics

Integrity is one of the core values of the College of William & Mary. Thus, we are committed to lawful and ethical behavior in all of the university's activities. At William & Mary, we insist that all members of the university community - our board members, employees, students and volunteers - comply with all laws, regulations, policies and ethical norms applicable to them. More generally, we are to be honest, fair, and trustworthy ourselves and to take care that other members of the university community are also.

We, as members of the William & Mary community, will:

1. Obey the laws, regulations and policies applicable to our university activities.
2. Protect and preserve university resources and ensure their proper use.
3. Avoid both conflicts of interest and the appearance of such conflicts.
4. Safeguard confidential information.
5. Make procurement decisions impartially and objectively.
6. Maintain effective internal controls to safeguard the regularity and integrity of our activities.
7. Treat other people with dignity and respect, ensuring there is no discrimination or harassment at William & Mary.
8. Report any illegal or unethical action that comes to our attention, so the university can investigate and take corrective steps.

## Diversity Statement

The College of William and Mary in Virginia is a community of teachers, students and staff who share our national ideals of human equality, democracy, pluralism and advancement based on merit. We give life to these principles - and prepare young women and men to be citizens of the wider world- when we value diverse backgrounds, talents and points of view.

As a community, William & Mary believes that cultural pluralism and intellectual diversity introduce us to new experiences, stimulate original ideas, enrich critical thinking, and give our work a broader reach. We cannot accomplish our mission of teaching, learning, discovery and service without such diversity.

William & Mary belongs to all Virginians, to the nation, and to the world. Yet our College, like our country, failed for many years to open the door of opportunity to all people. In recent decades, William & Mary has made itself a more diverse community, and thus a better one. Structures and habits that create injustices, however, have yet to be fully banished from American society. We are committed to eliminate those injustices at the College and beyond.

The College of William & Mary strives to be a place where people of all backgrounds feel at home, where diversity is actively embraced, and where each individual takes responsibility for upholding the dignity of all members of the community.

## Board of Visitors

As of July 1, 2019

The Board of Visitors is the governing authority of William & Mary. The Board has the powers and duties conferred upon it by the Royal Charter, the Code of Virginia, and the Management Agreement with the Commonwealth of Virginia. It strives to preserve the ideals and traditions of the institutions under its jurisdiction, including the student-administered Honor System. The Board appoints the President of the university; and it appoints academic officers, faculties, and other executive employees essential to the effective operation of all the institutions under its control. The Board consists of seventeen members appointed by and accountable to the Governor of Virginia and confirmed by the General Assembly. The seventeen members of the Board serve for terms of four years each. Annually the Rector appoints the President of the Student Assembly of William & Mary and, in consultation with the Committee on Academic Affairs, appoints a full-time faculty member from among the former presidents of the William & Mary Faculty Assembly to the position of non-voting, advisory representative on the Board of Visitors. Annually the Rector appoints a William & Mary Staff Liaison to serve as a non-voting liaison to bring a staff perspective to the Board. In selecting the Staff Liaison, the Rector shall alternate each year between the professional and operational/classified staffs. The Board approves the Mission Statement and Goals of the College.

**Board of Visitors Officers**

| | |
|---|---|
| John E. Littel | Rector |
| William H. Payne II '01 | Vice Rector |
| Sue H. Gerdelman '76 | Secretary |

**Board of Visitors Members**
*Term expires June 30, 2020*

| | |
|---|---|
| Warren W. Buck III, M.S. '70, Ph.D. '76, D.Sc. '13 | Williamsburg, VA |

| | |
|---|---|
| S. Douglas Bunch '02, J.D. '06 | Washington, DC |
| Anne Leigh Kerr '91, J.D. '98 | Richmond, VA |
| John E. Littel | Virginia Beach, VA |
| Brian P. Woolfolk, J.D. '96 | Fort Washington, MD |

*Term expires June 30, 2021*

| | |
|---|---|
| Mirza Baig | Great Falls, VA |
| Barbara L. Johnson, J.D. '84 | Alexandria, VA |
| J.E. Lincoln Saunders '06 | Richmond, VA |
| H. Thomas Watkins III '74 | Naples, FL |

*Term Expires June 30, 2022*

| | |
|---|---|
| Victor K. Branch '84 | South Chesterfield , VA |
| Sue H. Gerdelman '76 | Williamsburg, VA |
| William H. Payne II '01 | Bristol, VA |
| Lisa E. Roday | Henrico, VA |

*Term expires June 30, 2023*

| | |
|---|---|
| Mari Carmen Aponte | Washington, DC |
| James A. Hixon, J.D. '79, M.L.T. '80 | Virginia Beach, VA |
| Charles E. Poston, J.D. '74 | Norfolk, VA |
| Karen Kennedy Schultz '75 | Winchester, VA |

*2019-2020 Student Representatives*

| | |
|---|---|
| Kelsey J. Vita | William & Mary |
| Solomon Asare | Richard Bland College |

*2019-2020 Faculty Representatives*

| | |
|---|---|
| Catherine A. Forestell | William & Mary |
| Tiffany R. Birdsong | Richard Bland College |

*2019-2020 Staff Liaison*

| | |
|---|---|
| Joseph W. Wheeless IV | William & Mary |

**Committees of the Board of Visitors**

Executive Committee
Richard Bland College Committee
Committee on Academic Affairs
Committee on Administration, Buildings and Grounds
Committee on Audit, Risk and Compliance
Committee on Financial Affairs
Committee on Institutional Advancement
Committee on Organizational Sustainability and Innovation
Committee on the Student Experience

# Directory of Administrative Offices

## Office of the President

**Katherine A. Rowe**, *President*

**Michael J. Fox,** *Senior Assistant to the President and Secretary to the Board of Visitors*
**Cynthia A. Brauer,** *Executive Assistant to the President*
**Sandra J. Wilms**, *Executive Liaison to the Board of Visitors*
**W. Fanchon Glover**, *Chief Diversity Officer*
**Susan Kern**, *Executive Director of the Historic Campus*
**Jeremy P. Martin,** *Chief of Staff*
**Steve W. Tewksbury**, *Executive Director of University Events*

## Office of the Provost

**Peggy Agouris,** *Provost*

**Christin E. Fiedler,** *Executive Assistant to the Provost*
**Ann Marie Stock,** *Vice Provost for Academic and Faculty Affairs*
**Dennis M. Manos,** *Vice Provost for Research and Graduate/Professional Studies*
**Stephen E. Hanson,** *Vice Provost for International Affairs and Director of the Reves Center*
**Susan L. Bosworth,** *Associate Provost for Institutional Accreditation and Effectiveness*
**Sara L. Marchello,** *Associate Provost and University Registrar*
**Roxane O. Adler Hickey,** *Interim Director of the Washington Center*
**Adam Barger,** *Acting Director for University eLearning*
**David Brashear,** *Interim Director, Muscarelle Museum of Art*

## Faculty of Arts & Sciences

**Kate Conley**, *Dean of Faculty*

**Sherri Powers,** *Director of Administration and Finance for Arts & Sciences*
**Janice Zeman,** *Dean of Undergraduate Studies*
**Virginia J. Torczon,** *Dean of Graduate Studies and Research*
**Teresa V. Longo,** *Dean of Honors and Interdisciplinary Studies*
**John F. Donahue,** *Dean for Educational Policy*

## Mason School of Business

**Lawrence B. Pulley,** *Dean*

**Kurt A. Carlson,** *Associate Dean of Faculty*
**Ken White,** *Associate Dean for MBA and Executive Programs*

## School of Education

**Spencer G. Niles,** *Dean*

**Leslie W. Grant,** *Associate Dean for Academic Programs*
**C. Denise Johnson,** *Associate Dean*

## William & Mary Law School

**Davison M. Douglas,** *Dean*

**Patricia E. Roberts,** *Vice Dean*
**Dan Scianandre,** *Associate Dean, Administration and Finance*
**Dexter A. Smith,** *Associate Dean, Admission*
**Michael J. Ende,** *Associate Dean, Career Services*
**Laura W. Beach,** *Associate Dean, Development and Alumni Affairs*

**Adam M. Gershowitz**, Associate Dean for Research and Faculty Development
**Laura Brooks**, *Associate Dean, Student Services*

### School of Marine Science

**John T. Wells,** *Dean*
**DaNika Robinson**, *Chief Financial Officer*
**Linda C. Schaffner,** *Associate Dean, Academic Studies*
**Mark W. Luckenbach,** *Associate Dean, Research and Advisory Services*

### Omohundro Institute of Early American History and Culture

**Karin Wulf,** *Director*
**Joshua Piker,** *Editor, William and Mary Quarterly*

### Reves Center for International Studies

**Stephen E. Hanson,** *Vice Provost for International Affairs and Director of the Reves Center*
**Sylvia M. Mitterndorfer,** *Director of Global Education*
**Vacant**, *Director of International Students, Scholars and Programs*

### Earl Gregg Swem Library

**Carrie L. Cooper,** *Dean of University Libraries*
**Lisa Nickel**, *Associate Dean of Research and Public Services*
**Vacant**, *University Archivist*

### Muscarelle Museum of Art

**David Brashear**, *Interim Director*

### Office of Admission

**Timothy A. Wolfe**, *Associate Vice President for Enrollment and Dean of Admission*
**Elizabeth R. Dolan,** *Associate Dean of Admission*
**Tish R. Lyte**, *Associate Dean of Admission*
**David E. Trott,** *Associate Dean of Admission*

### Office of Compliance & Equity

**Pamela H. Mason**, *Chief Compliance Officer, Title IX/ADA Coordinator*
**Carla Costello**, *Interim ADA/504 Coordinator*

### Office of Equal Opportunity

**W. Fanchon Glover**, *Chief Diversity Officer*

### Office of Finance and Administration

**Samuel E. Jones,** *Senior Vice President for Finance and Administration*
**Amy Sebring,** *Vice President for Finance and Technology and Chief Financial Officer*
**Jacob Long,** *Director of the Budget*
**Christopher D. Lee,** *Chief Human Resources Officer*
**Melanie O'Dell,** *Director of Financial Operations*
**Erma Baker,** *Director, Procurement Services and Fixed Assets Management*
**William D. Copan,** *Assistant Vice President for Investment Administration*

**Courtney M. Carpenter,** *Chief Information Officer*
**F. Brian Hiestand,** *Chief Investment Officer for the Endowment Association*
**Deborah Cheesebro,** *Chief of Police*
**Martha T. Sheets,** *Senior Planner*

### Office of Financial Aid

**Joe Dobrota**, *Director*

### Office of Intercollegiate Athletics

**Samantha K. Huge**, *Director*
**Chelsey Burk**, *Senior Associate Athletics Director, Finance and Administration*

### Office of Internal Audit

**Kent Erdahl**, *University Auditor*

### Office of Strategic Initiatives & Public Affairs

**Henry R. Broaddus,** *Vice President for Strategic Initiatives & Public Affairs*
**Brian Whitson**, *Senior Associate Vice President for Communications and Chief Communications Officer*
**Timothy A. Wolfe,** Associate Vice President for Enrollment and Dean of Admission
**Colin Smolinsky**, *Director of Government Relations*
**Calandra Waters Lake,** *Director of Sustainability*
**Julie Summs,** *Director of Economic Development*
**Lillian H. Stevens**, *Senior Operations Manager and University FOIA Officer*

### Office of Student Affairs

**Virginia M. Ambler,** *Vice President for Student Affairs*
**Marjorie S. Thomas**, *Dean of Students*
**Anna Mroch,** *Director of Student Affairs Planning and Assessment*
**Gregory M. Henderson,** *Assistant to the Vice President for Student Affairs and Chief of Staff*
**Maggie Evans,** *Associate Vice President for Student Affairs (Campus Living) and Director of Residence Life*
**Kathleen Powell,** *Associate Vice President for Student Affairs and Executive Director of Career Development*
**Andrew D. Stelljes,** *Assistant Vice President for Student Affairs (Student Engagement and Leadership)*
**R. Kelly Crace**, *Associate Vice President for Health and Wellness and* Director of CMAX
**Kimberly L. Weatherly**, *Assistant Dean and Director, Center for Student Diversity*
**Carina Sudarsky-Gleiser,** *Director, Counseling Center*
**David Dafashy, M.D.,** *Director, Student Health Center*
**Anne H. Arseneau,** *Director of Leadership Development*
**Eric Margiotta**, *Director of Student Unions and Engagement*
**Melody Porter,** *Director of Office of Community Engagement*
**Linda A. Knight**, *Director of Campus Recreation*
**Liz Cascone,** *Director of The Haven*

### Office of the University Counsel

**Carrie Nee,** *University Counsel*

### Office of University Advancement

**Matthew T. Lambert**, *Vice President for University Advancement*
**Earl T. Granger, III,** *Associate Vice President for Development*

### Office of University Ombudsperson
**Tatia D. Granger,** *Interim University Ombudsperson*

### Office of the Associate Provost and University Registrar
**Sara L. Marchello,** *Associate Provost and University Registrar*
**Kimberly A. Momballou,** *Deputy University Registrar*

### Society of the Alumni
**Marilyn W. Midyette,** *Executive Director, Alumni Association and Associate Vice President of Alumni Engagement*

## The University: Academic & General Policies



### Statement of Purpose

Statement of Purpose
William & Mary, a public university in Williamsburg, Virginia, is the second-oldest institution of higher learning in the United States. Established in 1693 by British royal charter, William & Mary is proud of its role as the Alma Mater of generations of American patriots, leaders and public servants. Now, in its fourth century, it continues this tradition of excellence by combining the best features of an undergraduate college with the opportunities offered by a modern research university. Its moderate size, dedicated faculty, and distinctive history give William & Mary a unique character among public institutions, and create a learning environment that fosters close interaction among students and teachers.

The university's predominantly residential undergraduate program provides a broad liberal education in a stimulating academic environment enhanced by a talented and diverse student body. This nationally acclaimed undergraduate program is integrated with selected graduate and professional programs in five faculties-Arts and Sciences, Business, Education, Law, and Marine Science. Master's and doctoral programs in the humanities, the sciences, the social sciences, business, education, and law provide a wide variety of intellectual opportunities for students at both graduate and undergraduate levels.

At William & Mary, teaching, research, and public service are linked through programs designed to preserve, transmit, and expand knowledge. Effective teaching imparts knowledge and encourages the intellectual development of both student and teacher. Quality research supports the educational program by introducing students to the challenge and excitement of original discovery, and is a source of the knowledge and understanding needed for a better society. The university recognizes its special responsibility to the citizens of Virginia through public and community service to the Commonwealth as well as to national and international communities. Teaching, research, and public service are all integral parts of the mission of William & Mary.

### Student Right to Know

William & Mary complies with the Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act. Crime statistics and the annual Campus Safety Report are available from the Police Department or the Office of Institutional Research.

## The Honor System

Among the most significant traditions of William & Mary is its student-administered Honor System. The spirit and essence of the Honor System have existed at the university for more than 200 years and are embodied in the Honor Code. It asserts that honor and personal integrity are fundamental attributes essential of the climate of trust which must exist in a community of scholars. The Code is an agreement, accepted by each student who enrolls, not to lie, cheat or steal or to tolerate such behavior in others. Self-administered by elected peers, the Honor System is supported strongly by the Faculty and the Administration. Detailed information about the Honor System may be found in the William & Mary Student Handbook.

## Student Records Privacy Policy and Notification of Rights under FERPA

### I. Scope

This policy applies to all students in attendance at William & Mary, including the Virginia Institute of Marine Science (the university).

### II. Policy

The university protects the privacy of student records in accordance with the Family Educational Rights and Privacy Act (FERPA) and the Virginia Health Records Privacy Act, and provides students with access to their own records in accordance with FERPA. For questions about FERPA, please email the University Registrar's Office.

#### A. Student Records Rights.

FERPA affords students certain rights with respect to their education records and defines situations in which the university may release information from student records with student consent. Education records, under FERPA, are documents, files, and other materials that contain information directly related to a student and are maintained by the university or a university agent. Student rights include:

1. The right to inspect and review the student's education records within 45 days after the day the university receives a request for access. A student should submit to the University Registrar's Office a written request that identifies the record(s) the student wishes to inspect. The school official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the school official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

   Students who are citizens of Virginia also have rights to their records under the Virginia Freedom of Information Act. Information about the process for requesting records under the Act, and the university's obligations, is provided in the university's Freedom of Information Act Policy.

2. The right to request the amendment of an element of the student's education records that the student believes is inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA. A student who wishes to request an amendment should write the university

official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed.

If the university decides not to amend the record as requested, the student will be notified in writing of the decision and of the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the university discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.

   The school discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interest.

   Upon request, the university may also disclose education records without consent to officials of another school in which a student seeks or intends to enroll.

   The types of disclosures permitted without student consent are described in Section B, below.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the university to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:
   Family Policy Compliance Office
   U.S. Department of Education
   400 Maryland Avenue, SW
   Washington, DC 20202

See also Section C, below, for a discussion of other university policies relating to student records.

**B. Disclosures Permitted Without Student Consent.**

FERPA permits the disclosure of PII from a students' education records, without consent of the student, if the disclosure meets certain conditions found in §99.31 of the FERPA regulations . Except for disclosures to school officials (item 1 below), disclosures related to some judicial orders or lawfully issued subpoenas (item 8 below), disclosures of directory information, and disclosures to the student, §99.32 of FERPA regulations requires the institution to record the disclosure. Eligible students have a right to inspect and review the record of disclosures.

William & Mary may disclose PII from a student's education records without obtaining prior written consent of the student under the following conditions:

1. To other school officials whom the school has determined to have legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person serving on the board of visitors; or a student serving on an official committee, such as the Honor Council. A school official also may include a volunteer or contractor outside of the university who performs an institutional service or function for which the university would otherwise use its own employees and who is under the direct control of the university with respect to the use and maintenance of personally identifiable information from

education records, such as an attorney, auditor, or collection agent or a student volunteering to assist another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the university.(§99.31(a)(1))

2. To officials of another school where the student seeks or intends to enroll, or where the student is already enrolled if the disclosure is for purposes related to the student's enrollment or transfer, subject to the requirements of §99.34. (§99.31(a)(2))

3. To authorized representatives of the U. S. Comptroller General, the U. S. Attorney General, the U.S. Secretary of Education, or State and local educational authorities, such as a State postsecondary authority that is responsible for supervising the university's State-supported education programs. Disclosures under this provision may be made, subject to the requirements of §99.35, in connection with an audit or evaluation of Federalor State-supported education programs, or for the enforcement of or compliance with Federal legal requirements that relate to those programs. These entities may make further disclosures of PII to outside entities that are designated by them as their authorized representatives to conduct any audit, evaluation, or enforcement or compliance activity on their behalf. (§§99.31(a)(3) and 99.35)

4. In connection with financial aid for which the student has applied or which the student has received, if the information is necessary to determine eligibility for the aid, determine the amount of the aid, determine the conditions of the aid, or enforce the terms and conditions of the aid. (§99.31(a)(4))

5. To organizations conducting studies for, or on behalf of, the university, in order to: (a) develop, validate, or administer predictive tests; (b) administer student aid programs; or (c) improve instruction. (§99.31(a)(6))

6. To accrediting organizations to carry out their accrediting functions. ((§99.31(a)(7))

7. To parents of an eligible student if the student is a dependent for IRS tax purposes. (§99.31(a)(8)). Pursuant to Virginia law, the university will disclose such information, if certain conditions are satisfied, as described under Section C(2) below.

8. To comply with a judicial order or lawfully issued subpoena. (§99.31(a)(9))

9. To appropriate officials in connection with a health or safety emergency, subject to §99.36. Under this exception, William & Mary may disclose PII if the university determines that the person to whom the PII is to be disclosed needs the information to protect the student or other individual(s) from an articulable and significant threat to their health or safety (§99.31(a)(10))

10. To a victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense, subject to the requirements of §99.39. The disclosure may include only the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding. (§99.31(a)(13))

11. To the general public, the final results of a disciplinary proceeding, subject to the requirements of §99.39, if the university determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the university's rules or policies with respect to the allegation made against him or her. (§99.31(a)(14))

12. To parents of a student regarding the student's violation of any Federal, State, or local law, or of any rule or policy of the university, governing the use or possession of alcohol or a controlled substance if the university determines the student committed a disciplinary violation and the student is under the age of 21. (§99.31(a)(15))

13. Directory Information: In addition, FERPA permits the disclosure of information deemed by the university to be "Directory Information" without written consent. (§99.31(a)(11)) This information includes:

    Student name
    Current classification
    Hometown
    Previous schools attended and degrees awarded
    Dates of attendance
    Current enrollment status
    Degree(s) earned and dates awarded
    Major(s), Minor
    Scholarships, awards, honors or special recognition
    Height, weight, and birth date of members of athletic teams
    Photograph

    Students may prohibit the release of Directory Information by completing a "Request for Confidentiality" form, located on the University Registrar's website at www.wm.edu/registrar/forms. This request must be submitted in person to the Office of the University Registrar and will remain on file indefinitely until written notice is submitted by the student to remove it.

14. In addition, recent federal guidelines permit release of student information for the purpose of data collection and analysis.

    i. First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or state and local education authorities (Federal and State Authorities) may allow access to your records and private information without your consent to any third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program. The evaluation may relate to any program that is principally engaged in the provision of education, such as early childhood education and job training, as well as any program that is administered by an education agency or institution.

    ii. Second, Federal and State Authorities may allow access to your education records and private information without your consent to researchers performing certain types of studies, such as Statewide Longitudinal Data Systems, in certain cases even when the university objects to or does not request such research.

15. The Solomon Amendment (10 U.S.C. § 983) is a federal law that requires institutions to provide directory-type information on students, at least 17 years of age who are registered for at least one credit, upon request from representatives of the Department of Defense for military recruiting purposes. This information, referred to as "student recruiting information," includes: student name, addresses, telephone listings, age or year of birth, place of birth, level of education or degrees received, academic major, and the most recent previous educational institution in which the student was enrolled. A request for student recruiting information under Solomon must be

honored unless the student has completed the Request for Confidentiality Form and submitted the completed form to the Office of the University Registrar.

**C. Additional University Policies and Practices Relating to Student Records.**

1. Medical/Health Records. Medical information in students' records generally is not subject to additional protections, except for records of the Student Health Center and the Counseling Center that are protected by the Virginia Health Records Privacy Act.

   The Act generally prohibits the disclosure of a student's health information without the student's consent, unless an exception applies. The Health Records Privacy Act does not have a provision that permits sharing of health records within the institution similar to the "school officials" FERPA exception, but it does allow disclosure of records (other than psychotherapy notes) by the Student Health Center and Counseling Center to the university's Threat Assessment Team. The Act also contains numerous other exceptions, including disclosures in response to a subpoena satisfying specific statutory requirements.

   The Health Insurance Portability and Accountability Act of 1996 (HIPAA) does not apply to education records, even if these records contain medical information; HIPAA exempts education records from its privacy regulations, because these records are protected by FERPA.

2. Other Policies. For additional information regarding students' rights related to the release of personally identifiable information, see the University Registrar's website at http://www.wm.edu/registrar or the section entitled 'Statement of Rights and Responsibilities' in the Student Handbook. Additional university policies include the following:

   - **Release of Academic, Student Conduct, and Financial Information to Parents**: Students who wish their parents, guardians, and/or spouse to have access to academic, financial or student conduct information protected by FERPA may provide consent by completing the Personal Information tab in Banner Self-Service. Students have the right to revoke this consent at any time. Parents of dependent students have the right to information about their children; however, they must provide tax documents if there is no release already on file with the university.
   - **Student Assessment**: William & Mary conducts periodic reviews of its curricular and co-curricular programs as part of the university's state-mandated responsibility to monitor student outcomes and assure the continuing quality of a William & Mary degree. Surveys, course portfolios (including examples of student writing), and other procedures are used to gather information about student achievement and experiences. Information collected as part of the assessment program will not be used to evaluate individual performance and will not be released in a form that is personally identifiable. Students who do not want their work to be used in institutional or program assessments must submit a letter indicating that reference to the Dean of Undergraduate Studies.

This policy was amended by the Provost effective July 1, 2018, to (1) comply with Virginia Code 23.1-405(C) on student records and Virginia Code Section 2.2-3705.4 on FOIA by removing address (permanent, local, and email) and telephone numbers and adding hometown from Section II.B.13, (2) make changes conforming to amendments to other policies[1] and (3) make formatting improvements.

## Religious Accommodations

William & Mary urges its administrators, faculty members, and staff to be sensitive to the religious holidays of organized religions. All persons should be able to participate in the essential practices of their faith without conflict with academic requirements as long as such practices are in accordance with state and federal regulations and consistent with the safety regulations of the university. The university offers the following guidelines.

1. As soon as possible and no later than the end of the drop/add period, each student has the responsibility to inform his or her instructor of religious observances that are likely to conflict directly with classes and other required academic activities. Each student has the responsibility to arrange his or her course schedule to minimize conflicts. It is understood that when scheduling options exist for religious observances, the student has the responsibility to minimize conflicts.
2. Based upon prior agreement between the instructor and student, a student who misses a class meeting because of a scheduling conflict with religious observances should be allowed, whenever possible, to complete without penalty the work missed because of such absences. A student who is absent from a test or presentation because of the observance of a religious holiday should be able to reschedule it without penalty. Absence from a final examination requires that the examination be rescheduled through the established process for rescheduling of final examinations by the Associate Dean for Academic Programs.
3. If a scheduling conflict with a student's planned absence cannot be resolved between the instructor and the student, graduate students should contact the Dean.
4. Faculty members and administrators in charge of scheduling campus wide events should avoid conflicts with religious holidays as much as possible.

# The University: Student Financial Information and Policies



## Student Financial Information and Policies

THE UNIVERSITY RESERVES THE RIGHT TO MAKE CHANGES IN ITS CHARGES FOR ANY AND ALL PROGRAMS AT ANY TIME, AFTER APPROVAL BY THE BOARD OF VISITORS.

**Tuition and General Fees (per semester)**
Information on tuition and fees can be found in the individual school or faculty section of this catalog.

## Billing

The Bursar's Office generates eStatements each month for any account with a previous balance or with new activity. Payment is due in full by the due date on the statement.

Included on the eStatement are charges for tuition and fees, room, meal plans, and other miscellaneous charges such as printing, lab fees, music fees, tutoring fees, orientation fees, etc. Student account charges are due by the established payment deadlines. Failure to pay the balance due and/or to provide the required information for pending financial aid by the established payment deadlines may result In the assessment of a late fee, the loss of financial aid and/or a restrictive hold being placed on the student's account.

For currently enrolled students, the eStatement is generated electronically. No paper bills are issued to students or parents.

An email is sent to the student's W&M email address and to the authorized payer's email address (provided in eServices) when a bill has been generated and is ready for viewing. As a reminder, it is a violation of the university's Acceptable Use Policy to provide your password to a third party under any circumstances. Third parties may be set up as authorized users in Banner Self Service/eServices.

Due dates for tuition plan participants are established at the time of enrollment in the tuition payment plan.

Visit www.wm.edu/offices/financialoperations/sa/index.php for more information

## Payments

**Payment of Student Account**
Charges for tuition and fees, residence hall, meal plan and miscellaneous fees are payable by the due date each semester. Accounts not paid in full by the established due date will be assessed a late payment fee of 10% of the outstanding balance up to a maximum of $100.00.

**Payment Methods**
Payment may be made in U.S. dollars only by cash; check, money order or cashier's check made payable to The College of William & Mary. Payments by cash or check are accepted at the Cashiers Office in Blow Hall. Payment by check may also be made via the U.S. Postal Service. A check returned by the bank for any reason will constitute nonpayment and may result in late fees or collections. Payment online via credit card-American Express, Discover, VISA and MasterCard-is also available in eServices. Credit cards are accepted for online payments only. The College does not accept credit cards for 'in-person' payments or over the phone. A convenience fee is charged for payments made via credit card. Payment may also be made online via an electronic (web) check. There is no fee for paying online via electronic (web) check. Additional information may be obtained from the Bursar's Office website at http://www.wm.edu/offices/financialoperations/sa/index.php

Any past due debt owed the College, (telecommunications, emergency loans, parking, health services, library fines, etc.), may result in late fees or collections, withholding of transcripts and diplomas, and non-conferral of degree. In the event a past due account is referred for collection, the student will be charged all collection and litigation costs, as well as, the College's late payment fee.

**Tuition Payment Plans**
To assist with the payment of educational costs, the university offers the option of an Interest-Free Monthly Payment Plan for the fall and/or spring semesters of the academic year. This monthly payment plan allows you to spread your expenses for tuition, room and board, and other miscellaneous expenses charged on the student account into 4 monthly scheduled bank debits from a checking account per semester. A non-refundable application fee in the amount of $50.00 per semester is charged during the enrollment process for the payment plan.

Additional information, including plan highlights and FAQs, may be found on the Bursar's Office website at www.wm.edu/eservices under the "Tuition Payment Plan" link.

**Credit for Scholarships**

Students who have been awarded financial aid are required to pay any amount not covered by the award by the established semester payment due date to avoid being charged a late payment fee. The Office of the Bursar must receive written notification of any outside scholarship from the organization before the credit can be given towards tuition and fees.

## Student Financial Aid

The Office of Student Financial Aid administers all financial awards to undergraduates. Most assistance is based on financial need, with a limited number of academic and talent scholarships. All correspondence regarding financial awards, except those made by ROTC, should be addressed to:

Director of Student Financial Aid
William & Mary
P.O. Box 8795
Williamsburg, Virginia 23187-8795

The Department of Military Science provides scholarships and other financial assistance for students enrolled in the university's Army ROTC Program. Requests for information should be directed to:

Department of Military Science
William & Mary
P.O. Box 8795
Williamsburg, Virginia 23187-8795

### Financial Assistance

Financial assistance is available to undergraduates who need additional resources to meet the costs of education at the College. Demonstrated need is established through the analysis of the Free Application for Federal Student Aid (FAFSA). Entering freshmen and transfer applicants also need to submit the College Scholarship Service's (CSS) Profile. In most cases, Virginia undergraduates may expect sufficient support to enable them to attend the College for four years, while out-of-state undergraduates may in many cases expect partial support, with the level depending upon financial need and the availability of funds.

Assistance is offered for one year only, but it may be renewed for each succeeding year if need continues and the student otherwise qualifies. Renewal requires the completion of the FAFSA for each succeeding year. The College's standard of satisfactory academic progress, which is generally the same as that required for continuance in the College, is outlined in the Guide to Financial Aid, available from the Office of Student Financial Aid at
http://www.wm.edu/admission/financialaid/documents/1415faguide.pdf

Entering students include early decision, regular decision and transfers. Early Decision applicants wanting a tentative determination of aid eligibility should submit the CSS Profile. ALL entering students should file the FAFSA by March 1. Returning students should file by March 15. Apply on time, as late applications may not receive full grant consideration.

### The Financial Assistance Package

The financial assistance offer may include a grant, loan and/or Federal Work-Study. A grant is gift assistance and does not need to be earned or repaid. The Perkins Loan and Direct Loans must be repaid following graduation, while Federal Work-Study provides earnings during the academic session.

### Financial Assistance for Students

**Primary Assistance Sources**

Federally funded programs include the Pell Grant, the Perkins Loan, Federal Direct Loans, the Supplemental Educational Opportunity Grant, and the Federal Work-Study Program. State funded programs include the Virginia Guaranteed Assistance Program (VGAP) and the Commonwealth Grant. Endowed scholarship funds made possible through the generosity of friends and alumni of the College provide need-based grants.

**Special Scholarships and Programs**
Grant funds controlled by the Office of Financial Aid are based on demonstrated need. However, some merit or achievement based grants are offered by various departments such as Admission and Athletics. The Alumni group Order of the White Jacket awards scholarships to students working in food service.

**Studying Abroad**
Students studying off campus will be eligible for financial assistance. Please read the information available on our website (http://www.wm.edu/admission/financialaid/howtoapply/studyaway/index.php) before applying for a study abroad program.

## Financial Benefits for Veterans

**Veteran Education Benefits**
The U. S. Department of Veterans Affairs (VA) determines student eligibility for VA education benefits. They offer several programs to assist those eligible to pay for their education including the Post 9/11 GI Bill® and the Montgomery GI Bill®. Students decide which benefit is most appropriate based on individual circumstances and may apply to the VA through their website at www.gibill.va.gov or www.vets.gov. Questions about the VA educational benefits process at William & Mary can be addressed to the Office of the University Registrar at vabenefits@wm.edu.

For individuals covered by Chapter 31 or 33 who present Certificate of Eligibility, Statements of Benefits, or VAF 28-1905 form from the Department of Veteran Affairs, William & Mary will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, nor require the borrowing of funds because of an inability to meet financial obligations due to the delayed disbursement of VA funding for tuition and fees.

However, for unpaid balances beyond the anticipated Post 9/11 GI Bill® payment amount, William & Mary may levy a fee or restriction.

The Virginia State Approving Agency (SAA) is the approving authority of education and training programs for Virginia. That office investigates complaints of GI Bill beneficiaries. While most complaints should initially follow institutional grievance policy, if the situation cannot be resolved at the university, the beneficiary should contact that office via email saa@dvs.virginia.gov.

**Virginia Military Survivors and Dependents Program**
The Virginia Military Survivors and Dependents Education Program (VMSDEP) is a Commonwealth of Virginia program administered by the Virginia Department of Veterans Services (DVS), which provides education benefits to spouses and children of military service members killed, missing in action, taken prisoner, or who became totally and permanently disabled as a result of military service in covered military combat.

The purpose of VMSDEP is to provide undergraduate, graduate, or other postsecondary education to eligible participants by providing a waiver of tuition and all required fees at any public institution of higher education in the Commonwealth of Virginia. For a listing of benefits and eligibility requirements, please visit the DVS website: http://www.dvs.virginia.gov/, and select "Education & Employment" tab.

## Withdrawal Schedule and Refunds

**Full-time Students Who Withdraw from the University Fall/Spring Semesters**
Full-time students who withdraw from the university are charged a percentage of the tuition and fees based on the school week within which the withdrawal occurs. A school week is defined as the period beginning on Monday and ending on the succeeding Sunday. The first school week of a semester is defined as that week within which classes begin. Full-time students who withdraw from the university within the first school week of the semester are eligible for a refund of all payments for tuition and fees less the required enrollment deposit for entering students. After week 1 of the semester, the amount of the tuition and fees charged /refunded will be determined based on the following schedule:

| Week | Percentage Charged | Percentage Refunded |
|---|---|---|
| 1 | 0% | 100% |
| 2 | 20% | 80% |
| 3 | 30% | 70% |
| 4 | 40% | 60% |
| 5 | 50% | 50% |
| 6 | 60% | 40% |
| After Week 6 | 100% | 0% |

Students will not be eligible for any refund of tuition and general fees if required to withdraw by the university.

Please visit Registration and Withdrawal, Withdrawal from the university for instructions on the withdrawal process.

Refund of the room rent will be prorated based on the date the resident officially checks out of the room with required paperwork completed by a Residence Life staff member. The Freedom, Gold 19, and Gold 14 meal plan adjustments will be prorated on the daily rate given the last day of usage. The Block meal plan adjustments will be based on actual meal and flex point usage. The cut-off date for receiving a refund for a meal plan follows the full-time withdrawal schedule.

Overpayments on the student account created by federal loans or grants will be automatically refunded following federal guidelines. (Within 2 weeks after fund disbursement)

Overpayments created by Parent Plus Loans will be refunded to the parent unless the parent designates the student as the recipient during the loan application process.

If an overpayment shows on a student's account and it is not created by federal financial aid, the student is required to request a refund (https://forms.wm.edu/516/) from the Bursar's Office. If a request is not filed, the overpayment will remain on the student's account as a credit for the next semester or to offset additional charges which the student incurs.

Refunds for overpayments are issued as:
1 Direct deposit to your bank account if you have signed up for eRefund via eServices
2. A paper check mailed in the following address priority:
- CSU or GSH Box

- Local Address
- Permanent Mailing Address

Paper checks are issued to the most current address in Banner. It is the responsibility of the student to update their addresses by logging into Banner self-service.

It is university policy to hold the enrolled student liable for charges incurred, therefore in the case of refunding any overpayment, refund checks will be issued in the name of the student. Students who have received financial aid may be responsible for repaying those funds (see Withdrawal Schedule for repayment schedule).

**Summer Sessions**
Students who drop their course(s) during the add/drop period for the session(s) will not be assessed any tuition for the dropped course(s). Students who withdraw from their course(s) after the add/drop period for the session(s) will not be eligible for any adjustment of tuition or fees.

**Special Fees Refunds**
Fees for special courses are determined by the demand and arrangements, which are necessary to support such courses. Classes carrying fees have a notation in Banner Self-Service, "Additional Fees" and the amount of the fee can be seen in the Class Detail screen for each section.
Special fees are non-refundable.

**Withdrawal and Refunds for Students Called to Active Duty:** The Office of the Dean of Students assists students called to active duty during or between semesters, or prior to matriculation at the university. A description of the options available and the tuition refund policy can be found at www.wm.edu/deanofstudents in the "Academic Policies" section.

## Financial Aid Repayment Schedule

The return of Title IV funds for students with Title IV Federal Aid (Federal PELL, Direct Federal Subsidized and Unsubsidized Loans, Federal SEOG, Federal Work Study, Federal Perkins, Direct Federal PLUS, and Grad PLUS) who withdraw from school will be calculated in compliance with Federal regulations. A statutory schedule is used to determine the amount of Title IV funds a student has earned as of the date the student withdraws or ceases attendance. Please be advised that the Federal return of funds calculation has a different percent of attendance schedule than the College's withdrawal policy.

If a student withdraws from university prior to completing 60% of a semester, the Financial Aid Office must recalculate the students eligibility for all funds received, including Title IV funds. Recalculation is based on a percent of earned aid using the following Federal Return of Title IV funds formula:

Percent of aid earned = the number of days completed up to the withdrawal date, divided by the total days in the semester.

(Any break of five days or more is not counted as part of the days in the semester.)

For Title IV purposes, the withdrawal date will be the date of notification of intent to withdraw, which may be earlier than the withdrawal date for the purpose of tuition reimbursement. If a student does not formally withdraw but ceases to attend classes, the withdrawal date under Title IV will be the mid-point of the semester.

Funds are returned to the appropriate federal program based on the percent of unearned aid using the following formula:

Aid to be returned = (100% minus the percent earned) multiplied by the amount of aid disbursed toward institutional charges.

Keep in mind that, when funds are returned, the student borrower may owe a balance to the College. If that is the case, the student should contact the Student Accounts/Bursars Office to make payment arrangements.

**Examples of Return of Funds Calculation**

Example 1: Virginia undergraduate who lives on campus
Institutional Charges
Tuition $6935
Housing $2838
Financial Aid Package
Pell Grant $1500
Direct Subsidized Loan $1887
State Grant $3086
The student withdraws on 10/20, which is day 57 out of 116 in the semester (57/116=49.1% of Title IV funds earned by the student). Title IV funds = $3387 ($1500 Pell + $1887 Sub Stafford). $3387 X 49.1% = $1663.02 of earned Title IV funds. The remainder of funds unearned $3387-$1663.02 = $1723.98 will be returned to Federal programs. The state grant will be reduced using the same formula; $3086 X 41.1% = $1268.35 earned and $1817.65 of the state grant.

Example 2: Out of state student not living on campus
Institutional Charges
Tuition $19220
Financial Aid Payments
Direct Subsidized Loan $807
Direct Unsubsidized Loan $1860
Perkins Loan $750
FA Grant $9076
The student withdraws on 10/27, which is day 64 out of 116 in the semester (64/116=55.2% of Title IV funds earned by the student). Title IV funds = $3,417 ($807 Sub Stafford + $1860 UnSub Stafford + $750 Perkins Loan). $3,417 X 55.2% = $1886.18 of earned Title IV funds. The remainder of funds unearned $3,417 - $1886.18 = $1530.82 will be returned to Federal programs. The FA grant will be reduced using the same formula; $9076 X 55.2% = $5009.95 earned and $4066.05 unearned.
William & Mary must return $1531 to the Direct Unsubsidized Loan and $4066.05 of the FA grant.

## Eligibility for In-State Tuition Rate

To be eligible for in-state tuition, a student must meet the statutory test for domicile as set forth in Section 23-7.4 of the Code of Virginia. Domicile is a technical legal concept. In general, to establish domicile, students must be able to prove permanent residency in Virginia for at least one continuous year immediately prior to the first official day of classes, and intend to remain in Virginia indefinitely after graduation. Residence in Virginia for the primary purpose of attending college does not provide eligibility for in-state tuition. Applicants seeking in-state status must complete and submit the "Application for Virginia In-State Tuition Privileges" by the first day of classes of the semester for which In-state eligibility is sought. The application is evaluated and the student is notified in writing if the request for in-state tuition is denied.

Under Virginia law, students under age 24 are rebuttably presumed to be dependent on a parent/guardian, and, unless an exception is identified, the parent/guardian's domicile status determines the student's tuition rate.

Special rules apply to veteran, active-duty, and military dependent students and non-U.S. citizens; contact the Registrar's Office for details or visit www.wm.edu/registrar.

A matriculating student whose domicile has changed may request reclassification from out-of-state to in-state. Students seeking reclassification must complete and submit the "Application for Virginia In-State Tuition Privileges" to the Office of the University Registrar. The Office of the University Registrar evaluates the application and notifies the student only if the request for in-state tuition is denied. Any student may submit in writing an appeal to the decision made, however, a change in classification will only be made when justified by clear and convincing evidence. All questions about eligibility for domiciliary status should be addressed to the Office of the University Registrar, (757) 221-2808.

In determining domicile the school will consider the following factors for the student and parent/guardian/spouse:

Citizenship status
Residence during the year prior to the first official day of classes
Employment
Property ownership
Sources of financial support
State to which income taxes are filed or paid
Location of checking or passbook savings
Social or economic ties with Virginia
Driver's license
Motor vehicle registration Voter registration

**Credit hour surcharge**-Students who qualify for in-state tuition privileges must pay a surcharge (generally calculated at out-of-state tuition rates) for courses taken after completion of 125% of the credit hours required for the degree. For example, for a bachelor's degree requiring 120 credit hours, this would mean that any credits taken beyond 150 (or 125% of 120) would be charged at the out-of-state rate. Certain exceptions apply, including AP/IB credits; see Section 23-7.4:F of the Code of Virginia for more information.

Additional information may be obtained from the William & Mary website at http://www.wm.edu/registrar or directly from the State Council of Higher Education for Virginia (SCHEV) at http://www.schev.edu.

## Auxiliary Services

### Meal Plans

William & Mary Dining Services provides a comprehensive dining program featuring a variety of meal plan options to meet the needs of each student. The two residential dining facilities on campus, the Commons and Center Court at the Sadler Center, provide all-you-care-to-eat style dining, while numerous retail options include Marketplace, Tribe Truck, Element Cafe at the Integrated Science Center, the Law School Cafe, Monticello Cafe at the School of Education, Boehly Cafe at the School of Business, Cosi, Chick-fil-A at Tribe Square, Aromas in Swem Library, Domino's Pizza Delivery and more provide traditional pay-as-you-go options.

William & Mary Dining Services offers students a total of seven meal plans. The Freedom and the Gold 19 plans are based on weekly usage while the Block 175, Block 125, Block 100, Commuter 50 and

Commuter 25 provide a guaranteed number of meals per semester. All meal plans include Dining Dollars to provide flexibility and convenience. The amount of Dining Dollars varies according to the meal plan selected. Additional Dining Dollars may be purchased through dining.wm.edu and added to your meal plan at any time during the semester.

Meal plans for graduate students are optional, however, to select a meal plan prior to the official add/drop period, visit www.wm.edu/dining. Meal plans selected in the fall automatically roll over to the spring semester, however, students may change or cancel their meal plan until the end of the add/drop period each semester (restrictions apply). Changes and/or cancellations after the add/drop period must be requested through dining@wm.edu and may incur additional fees. All meal plans are non-transferable and intended for individual use only. For additional information about meal plans, visit www.wm.edu/dining

### William & Mary Bookstore

The William & Mary Bookstore, operated by Barnes & Noble College Booksellers, offers new, used, digital and rental textbooks for all William & Mary courses and offers a competitive Price Match program. In addition to required textbooks, the bookstore has recommended school and dorm room supplies. The Bookstore is also the official source for the Student Laptop Program, W&M clothing, gifts, class rings, graduation regalia and commencement announcements. The College Café located on the second floor of the bookstore, proudly serves Starbucks coffee and offers a varied assortment of baked goods, sandwiches, salads and other lunch and dinner options. A variety of author appearances, readings, children's occasions, and other special events are held throughout the year. *Students receive a 20% discount on W&M clothing purchases with a valid W&M Tribe Card*. The Bookstore accepts cash, W&M Express, all major credit cards and Barnes & Noble gift cards.

### William & Mary Student ID Card (Tribe Card)

The William & Mary Tribe Card is the university's official card prepared by Tribe Card Services for each student. It functions as a campus meal card, library card, an entry or access card to residence halls, recreational facilities, academic buildings, and the Student Health Center. Student Tribe Cards are not transferable and are intended for the sole use of the student to whom it is issued. Usage is limited to William & Mary, VIMS, and authorized programs. The Tribe Card is not to be used for legal purposes outside the University. A Tribe Card used by anyone other than its owner will be confiscated and the person using the card may be subject to disciplinary action. Because cards provide access to secured buildings and financial accounts, lost cards should be deactivated immediately via tribecard.wm.edu. If the lost card cannot be deactivated, it can be reported to Tribe Card Services during business hours or to Campus Police evenings and weekends. This process also ensures that misplaced cards cannot be used by others. A $23 charge is assessed for lost, worn or damaged cards. For additional information, visit www.wm.edu/tribecard. Tribe Card Services is located in Room 169 in the Campus Center.

### William & Mary Express Account

The William & Mary Express Account is a debit account linked to the student's Tribe Card. When deposits are made to the account, students can use their Tribe Cards to purchase a variety of goods and services both on and off campus. Deposits to the Express account may be made online, at Tribe Card Services, or at the Value Transfer Station (VTS) machine located in Aroma's at Swem Library. The W&M Express account can be used to make purchases at many campus merchant including Campus Recreation, Parking & Transportation, the Bookstore and Dining Services as well as over 15 off-campus merchants. For additional W&M Express information visit www.wm.edu/wmexpress.

### Parking & Transportation

All motor vehicles operated or parked on university property, including motorcycles, motor scooters, moped, and vehicles with handicapped plates or hangtags, must be registered with the Parking Services Office. A decal is required to park on university property at all times beginning Monday, 7:30 a.m. through Friday, 5:00 p.m., except in metered or timed spaces as posted. Parking Services office hours are 7:45 a.m. - 6:00 p.m. Monday through Thursday and 7:45 a.m. - 4:30 p.m. on Friday, closed weekends unless otherwise advertised. The Motorist Assistance Program (MAP) offers assistance to stranded motorists on University property 8:00 a.m.-5:30 p.m. Monday through Friday. Registered bicycles may utililize the campus bike racks throughout campus. Bicycles found improperly chained to campus property or that pose a safety hazard, will be tagged for 24 hours then removed and impounded. For more information, please contact (757) 221-4764 or visit our website at www.wm.edu/parking. The Parking Services office is located at 201 Ukrop Way, attached to the campus parking garage.

Students may also access the WATA bus lines by showing their William & Mary Tribe Card. For a complete list of routes and times, visit gowata.org

## Residence Hall Fees

Residence Hall fees vary depending on the specific building to which a student is assigned; the average cost per semester fee is $4,379.00. Residence Hall fees will be prorated on a daily basis for students acquiring on-campus housing more than two weeks after the first day of occupancy for the residence halls. Students who move out of campus housing and remain enrolled at the university will not be eligible for residence hall fee refunds unless granted a contract release by the Contract Release Committee.

**Housing Cancellation Policy**-Students have 24 hours from contract acceptance to cancel their housing contract with no penalty. Students who have signed the W&M Residence Life Housing Contract for the 2019-2020 academic year will owe and be charged full room rent. Any termination of the W&M Residence Life Housing Contract, subject to the terms and conditions in Sections 5 and 6 of the housing contract, may qualify the resident for a refund or adjustment of room rent owed as outlined in the housing contract. If Residence Life is unable to provide a fall semester room assignment by August 1, the student may request cancellation of the contract with no penalty. The cancellation policy does not apply to freshman or sophomore housing assignments.

**Semester I, Fall 2019:**

- Prior to February 21: If a request for cancellation is received before this date the student may cancel their contract and a $500 cancellation fee will be billed to the student account.
- February 21 to March 31: If a request for cancellation is received between these dates the student may cancel their contract and a $1000 cancellation fee will be billed to the student account.
- April 1 to April 30: If a request for cancellation is received between these dates the student may cancel their contract and a $1500 cancellation fee will be billed to the student account.
- May 1 to May 31: If a request for cancellation is received between these dates the student may cancel their contract and a $2000 cancellation fee will be billed to the student account.

**Semester II, Spring 2020: (new Spring 2020 contracts only- does not apply to fall 2019 residents)**

- If a request for cancellation is received within 5 business days from contract submission the student may cancel their contract and a $500 cancellation fee will be billed to the student account.
- If a request for cancellation is received between 6-10 business days from contract submission the student may cancel their contract and a $1000 cancellation fee will be billed to the student account.

- On or after 11 business days from contract submission students who wish to cancel their housing contract must petition for contract release.

**New Graduate, Transfer & Returning Student Contracts submitted after May 31**

- If a request for cancellation is received within 5 business days from contract submission the student may cancel their contract and a $500 cancellation fee will be billed to the student account.
- If a request for cancellation is received between 6-10 business days from contract submission the student may cancel their contract and a $1,000 cancellation fee will be billed to the student account.
- On or after 11 days from contract submission students who wish to cancel their housing contract must petition for contract release.

Cancellation requests should be emailed from the student's William & Mary email account to living@wm.edu and include student name, student ID number, space selected and a statement requesting cancellation. Beginning May 31 students seeking to be released from their on-campus housing contract must petition the Contract Release Committee. A release may be granted only to students who can demonstrate through the written petition and supporting documentation that their situation is extraordinary and cannot be resolved in campus housing. Petitions are considered on a case by case basis and release is not guaranteed.

**Incidental Expenses** - The cost of clothing, travel and incidental expenses varies according to the habits of the individual. The cost of books depends on the courses taken. Books must be paid for at time of purchase. Checks for books should be payable to The William and Mary Bookstore.

## Deposits and Miscellaneous Fees

| | |
|---|---|
| Application fee - Undergraduate | $ 75.00 |
| Application fee - Graduate Arts & Sciences | $ 50.00 |
| Application fee - School of Education | $ 50.00 |
| Enrollment deposit - Undergraduate | $150.00 |
| Enrollment deposit - School of Education | $ 350.00 |
| Undergraduate Orientation Fee | $ 334.00 |
| Room change penalty fee | $ 50.00 |
| Transcript fee - Official | $ 7.00 |
| Graduation fee | $ 145.00 |

**Application Fee** - A non-refundable processing fee is required with an application for admission to most programs of the College. If the student attends the College, this fee is not applied as credit toward their tuition and fees charges.

**Enrollment Deposit** - Upon acceptance for enrollment by the College, a non-refundable deposit is required to confirm the student's intent to enroll. The deposit is applied as a credit toward tuition and fees charges.
**Room Change Penalty Fee** - Students who change rooms without the approval of Residence Life will be charged a $50 fee and will be required to move back into the original assignment.

**Graduation Fee** - A non-refundable graduation fee of $145.00 (per degree) will be charged to all students after they have filed their "Notice of Candidacy for Graduation". The student will be billed for the fee along with the other tuition and fees obligations.
**Transcript Fee** - Official transcripts cost $7 per transcript. Payment is due at the time the order is placed. Payment must be made in U.S. dollars only by cash or check made payable to the College of William & Mary. Transcripts must be requested in writing with a student's signature or online through the National Student Clearinghouse. Request forms are available in the Office of the University Registrar, Blow Memorial Hall, online at www.wm.edu/offices/registrar/forms/index.php, or written requests may be mailed to: William & Mary, Office of the University Registrar, P.O. Box 8795, Williamsburg, VA 23187-8795, Attention: Transcripts. No transcript will be released until all financial obligations to the university are satisfied. Current and former students enrolled since 2007 may access an unofficial transcript through Banner self-service at my.wm.edu. One unofficial transcript will be generated free-of-charge upon request to the University Registrar's office per year; subsequent copies carry a $7 fee.

## Financial Penalties

Failure to pay in full by the established due date(s) may result in the assessment of late fees/penalties in an amount up to 10% of the outstanding account balance. Semester payment due dates are established by the Office of the Bursar. For students electing to pay tuition and fees through the tuition payment plan, the payment due date is the first of each month beginning in August for the fall semester and January for the spring semester as detailed in the payment plan enrollment information. Failure to pay by the established due date(s) may result in late fees, referral to University Collections and Receivables, and/or referral to an outside collection agency.

### Late Registration Fee

$50 for full-time students
$25 for Flex Track/part time students
A student must petition the Office of the Dean of Students (undergraduate) or to the graduate dean to register late or register again after cancellation. If approved, payment is due in full for all debts owed the university, including a late registration fee and late payment fee.

### Delinquent Accounts

An account is considered delinquent when payment has not been received by the payment due date. Once your account is considered delinquent (more than 59 days past due) with the university, we are required by the Commonwealth of Virginia to send your account to either a private Collection Agency or the Office of the Attorney General depending on the dollar amount past due.

If your account has been sent to a Collection Agency (all accounts receivable under $3,000.00 and more than 59 days past due), the following events will occur until you have paid the Collection Agency in full:

- Addition of 23% collection costs;
- Submission of your account to the Department of Taxation pursuant to the Setoff Debt Collection Act;
- Reporting of your account to all Major Credit Bureaus; and
- Placement of a hold on your William & Mary account making you ineligible for any services from the College such as registration for classes, official transcripts, or a diploma.

If your account has been sent to the Office of the Attorney General (all accounts receivable $3,000.00 and greater and more than 59 days past due), the following events will occur until you have paid the Office of the Attorney General in full:

- Imposition of interest accrual at six percent per annum from (date of initial pre-delinquency invoice or demand letter);

- Addition of 30% attorney's fees to your account balance;
- Submission of your account to the Department of Taxation pursuant to the Setoff Debt Collection Act; and
- Placement of a hold on your William & Mary account making you ineligible for any services from the university such as registration for classes, official transcripts, or a diploma.

### Returned Check Fee

The return of a check issued to the College of William & Mary will result in a $50.00 returned check fee being placed on the account of the student on whose behalf the check was presented for each returned check no matter the reason. Each account will be allowed two (2) returned checks after which payment by check will not be accepted. Written notification/email on how to resolve the returned check(s) will be sent to the person whose account was affected and/ or the maker of the check.

A hold will be placed on the account affected, until the returned check has been redeemed (made good). If the returned check(s) have not been redeemed by the deadline, an additional 10% (up to $250.00) late fee will be levied, and the university will begin its collection proceedings as stated within the guidelines of the Department of Accounts, Commonwealth of Virginia.

**Important Note:** A returned check may automatically result in a hold on the account affected, which may preclude participation in any or all of the following activities: further check writing privileges, class registration, receipt of grades, issuing transcripts, and/or diplomas.

### Returned Electronic Payment Policy

Payments made online through eServices by credit card and/or echeck which are returned for any reason will result in a $50.00 returned payment charge being assessed on the student's account at the university. A hold will be placed on the account affected, until the returned check has been redeemed (made good). If the returned check(s) have not been redeemed by the deadline, an additional 10% (up to $250.00) late fee will be levied, and the university will begin its collection proceedings as stated within the guidelines of the Department of Accounts, Commonwealth of Virginia.

### Returned Check Payment Methods

Cash-Pay in person at the Bursar's Office. Obtain a cash register receipt for your records. DO NOT MAIL CASH.

Certified Funds -Make cashier's check, money order, or other certified funds payable to the College of William & Mary. Include your name, ID#, current address, and phone number on the face of the check. Deliver in person or mail certified funds to the following address:

William & Mary
Attn: Bursar's Office / Sandra Thomas
P.O. Box 8795
Williamsburg, VA 23187-8795

## The University: Services

- Dean of Students Office
- Student Accessibility Services
- Senior Citizens
- Student Health Center
- Counseling Center
- University Libraries
- Information Technology

## Dean of Students Office

**S. Marjorie Thomas, Dean of Students**
**Campus Center, Room 109**
**(757) 221-2510**
Web site: http://www.wm.edu/deanofstudents/

The Dean of Students Office assists all students, graduate and undergraduate, from their initial orientation to the university through successful completion of their academic and personal goals. The Dean of Students is an advocate for student needs and acts as liaison between students and academic departments. Staff members provide learning assistance counseling and workshops for students who are interested in boosting their time management and study skills. Student Accessibility Services for permanent or temporary diagnosed conditions are coordinated within this office (see Student Accessibility Services section). In addition, members of the staff work with students who are experiencing unexpected or difficult circumstances that may result in a need for a medical leave or mid-semester withdrawal.

The Dean's office is responsible for managing all violations of the Student Code of Conduct and for training and advising the graduate and undergraduate Honor Councils. Staff members are available to discuss the community's standards, the systems by which they are enforced, or concerns related to the conduct of students or student groups. Any member of the community may submit reports about student conduct to this office. The Office also coordinates the university's responses to students who have experienced sexual harassment and sexual assault. The Dean of Students Office publishes the Student Handbook, which includes statements of rights and responsibilities for all students. Information about other services available to students also is included.

## The Haven

**Liz Cascone, MSW, Director**
**Campus Center 166**
**(757) 221-2449**
Website: www.wm.edu/thehaven

The Haven is a peer-based confidential, welcoming, and inclusive resource center for those impacted by sexual violence and harassment, relationship abuse and intimate-partner violence, stalking, and other gender-based discrimination. The Haven welcomes all who may have questions or concerns, who need support and resources, and who are seeking guidance and connection.

The Haven is a place where students can go without a report being made to the school. The trained Confidential Advocates (student volunteers) who work in The Haven, as well as the Director of The Haven, are "confidential resources." Confidential resources are NOT required to report incidences of sexual harassment or assault, domestic or dating violence, stalking, or other gender-based discrimination*. This allows students to get support and resources, hear about reporting options, accommodations, and other remedies before taking further action. It is critical that you understand who is a responsible employee (mandated to report to school officials) before disclosing your, or your friends, experiences of sexual harassment or assault, domestic or dating violence, stalking, or other gender-based discrimination.

## Care Support Services

**Rachel McDonald, Ph.D., Director**

**Campus Center, 107**
**757-221-2510**
Website: https://www.wm.edu/offices/deanofstudents/services/caresupportservices/index.php

Care Support Services provides outreach, advocacy, and support services that assist and empower students in identifying and managing interpersonal, academic, and wellness concerns. When students face significant challenges to their mental, physical, and social health, we help in identifying and accessing resources both on and off campus to meet student's needs. Please be aware that Care Support Services is not an emergency response department; please contact WMPD or 911 for emergencies.

When notified about a student concern, what we do:

- Contact student to address concern
- Refer student to appropriate services (On or off-campus)
- Respond with intervention
- Provide ongoing support to both students and families

How we connect to students:

- Student self-reports: A student can call or email us, schedule an appointment, or file a care report
- Faculty and Staff Reports: W&M faculty and staff are trained to submit a "Care Report" to our office when they suspect a student might be experiencing a medical, emotional, or personal challenge.
- Students concerned for other students: Student can report an issue or concern they have for another student by submitting a Care report on the Dean of Students web page.

## Student Accessibility Services

**Lesley Henderson, Director of Student Accessibility Services and Assistant Dean of Students**
**Campus Center** 109
(757) 221-2510
Web Site: http://www.wm.edu/offices/deanofstudents/services/studentaccessibilityservices/index.php

Student Accessibility Services strives to create a comprehensively accessible living and learning environment to ensure that students with disabilities and diagnosed conditions are viewed on the basis of ability by considering reasonable accommodation on an individual and flexible basis in accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. The decision to request accommodation is voluntary and a matter of individual choice. Students seeking accommodation are strongly encouraged to contact Student Accessibility Services and submit all supporting documentation early to allow adequate time for planning.

**Documentation of a Diagnosed Condition**
Documentation serves two primary purposes. First, it establishes that the individual has a diagnosed condition, and therefore is protected from discrimination. Second, documentation must describe the current functional impact of the diagnosed condition so that potential accommodations can be identified.

All documentation of diagnosed conditions should consist of an evaluation by an appropriate professional that is not older than three years from the date of the first accommodation request. Included must be a clear statement of the diagnosis, the basis for the diagnosis, and the current impact of the diagnosed condition as it relates to the accommodation request. As appropriate to the diagnosed condition, the documentation should also include the following elements:

- A diagnostic statement identifying the condition, date of the most current diagnostic evaluation, and the date of the original diagnosis.
- A description of the diagnostic tests, methods, and/or criteria used including specific test results and standardized test scores, as well as the examiner's narrative interpretation.
- A description of the current functional impact of the diagnosed condition. This may be in the form of an examiner's narrative, and/or an interview, but must have a rational relationship to diagnostic assessments. For learning disabilities, current documentation is defined using adult norms.
- A statement indicating treatments, medications, or assistive devices/services currently prescribed or in use, with a description of the mediating effects and potential side effects from such treatments.
- A description of the expected progression or stability of the impact of the diagnosed condition over time, particularly the next five years.
- A history of previous accommodations and their impact.
- The credentials of the diagnosing professional(s), if not clear from the letterhead or other forms. Please note that diagnosing professionals cannot be family members or others with a close personal relationship with the individual being evaluated.

Documentation of cognitive impairment such as Specific Learning Disability, Attention Deficit Disorder, or physical, medical, and psychological disorders affecting learning must include a comprehensive report of psycho-educational or neuropsychological evaluation meeting specified documentation criteria. (Please see the Student Accessibility Services website at https://www.wm.edu/offices/deanofstudents/services/studentaccessibilityservices/index.php for a list of criteria.) IEP or 504 plans will not be considered sufficient documentation unless also accompanied by a current and complete comprehensive report.

Documentation prepared for specific non-educational venues such as the Social Security Administration or the Department of Veteran's Affairs may not meet these criteria. Records from school divisions concerning students exiting from special education services under the Individuals with Disabilities Education Act (IDEA) will be given due consideration in determining the presence of a qualifying disability and making accommodation decisions. All documentation of disability is considered confidential and will not be released without a student's prior written consent.

Beyond the more objective determination of a diagnosed condition and its impact provided by external documentation, the College recognizes that input from the individual with this diagnosed condition is also a rich and important source of information on the impact of the condition and on the effectiveness of accommodations. Accommodation decisions are made on a case by case basis, considering the impact of a particular student's diagnosed condition within the specific context of a college-level academic environment.

## Senior Citizens

Senior citizens of Virginia who wish to take advantage of fee waiver privileges for attending courses at the university are invited to contact the University Registrar for full details.

## Student Health Center

**Dr. David Dafashy, Director**
**1 Gooch Drive**
**(757) 221-4386**
Web site: http://www.wm.edu/health

The Student Health Center provides a full-range of primary care services including the evaluation, treatment and prevention of all kinds of acute or chronic physical, mental and social health issues. Our clinical staff includes Board-certified physicians and nurse practitioners, registered nurses, laboratory technicians, a pharmacist, and several support staff, all of whom deliver high-quality patient care to full time students at the College. The Accreditation Association of Ambulatory Health Care, Inc. (AAAHC) has awarded the Student Health Center at the College of William & Mary another three-year term of accreditation. This accreditation affirms that the Health Center meets and will continue to demonstrate the attributes as reflected in the standards of the accrediting body. The Student Health Center is accredited through 2022.

There is fee for office visits, as well as a fee for certain services, labs, pharmacy and medical supplies. Information about fees and charges can be found on our website. All matters between a student and the Health Center staff are confidential and will not be released without the student's written consent (except in the case of life threatening situations, medical emergencies, severe emotional or psychological distress, or when required and/or permitted by law).

Virginia state law requires all full-time students who are enrolling in a four-year public institution to provide a health history and an official immunization record. The university further requires all full-time students (including previously matriculated students) as well as any other student eligible for services as determined by their department (i.e. Language House tutors, students with an approved underload, or transfer students) to provide documentation of the same immunization requirements and health history. This form will not be accepted if the physician completing and signing the form is a family member. Previously enrolled students who are reentering as full-time students after an absence of 2 years or more must update their forms to meet current requirements. Additionally, enrolled students who are reentering as full-time students after an absence from campus of 6 years or more must resubmit the entire form. This information MUST be submitted on William & Mary's Health Evaluation Form (https://www.wm.edu/offices/wellness/healthcenter/documents/healthevaluationform.pdf). In order to be eligible for medical care, students must have paid a Health Fee for the current semester and completed the Health Evaluation Form. Failure to comply with this requirement will result in the following actions: prevention from registering for classes, ineligibility for non-urgent medical care at the Student Health Center, the assessment of a fine on your student account, and may also result in eviction from the residence halls and/or removal from campus (depending on the medical issue).

The university requires all full-time undergraduate and graduate students admitted Fall 2006 or after and all F-1 and J-1 international students to have health insurance coverage throughout the school year as a condition of enrollment. These students will be enrolled in the college-endorsed Student Health Insurance Plan and the cost will be billed to their student account in two installments (fall and spring semester) UNLESS proof of other adequate health insurance coverage is furnished. Students who already have health insurance for the entire academic year must submit a waiver request by the posted deadline each academic year and the waiver request must be approved to avoid being enrolled in the Student Health Insurance Plan. All other full-time undergraduate and graduate students admitted prior to Fall 2006 are not required by the university to have health insurance coverage but are eligible to enroll in the college-endorsed Student Health Insurance Plan on a voluntary basis. It is the student's responsibility to verify whether or not the charge has been billed to your student account. If there is a billing error, you should contact the Student Insurance Coordinator immediately. To access the waiver or enrollment request forms and for more information about the insurance requirement or the college-endorsed insurance plan, please visit www.wm.edu/health/insurance.

## Counseling Center

**Dr. Carina Sudarsky-Gleiser, Interim Director**
**Blow Memorial Hall, Suite 240**
**(757) 221-3620**
Web site: http://www.wm.edu/counselingcenter/

The Counseling Center offers a range of brief services for William & Mary students in order to address psychological issues, personal concerns, interpersonal issues, and crisis intervention. Staff members are available to discuss any important personal concerns a student may be facing and work with that student to provide resources to address those concerns.

The staff of the Counseling Center is a diverse group of mental health professionals, including psychologists, counselors, and social workers. A sport psychologist is available for students interested in learning how to enhance their athletic or academic performance. All staff are trained and experienced in dealing with the problems of university students.

Appointments may be made by calling the Counseling Center at 221-3620 or by coming to the office in person. Office hours are 8 a.m.-noon and 1 p.m. - 5 p.m., Monday through Friday. Emergency services during the fall and spring semesters are also available after hours and on weekends by calling William &Mary Police at 221-4596 and asking to speak with the Counseling Center 'on-call' counselor.

## William & Mary Libraries

### Swem Library
www.libraries.wm.edu

**Carrie Cooper, Dean of University Libraries**
**(757) 221-4636**

W&M Libraries actively participate in the teaching and research missions of William & Mary by providing services, collections, staff, and facilities that enrich and inform the educational experience, and promote a lifelong commitment to learning.

The department fulfills this mission by helping students, faculty, staff, and visitors find information and learn research skills; selecting and acquiring the best resources for the university's curricular and research needs; and organizing, preserving, and providing access to these resources efficiently and effectively.

Hours for Swem Library, various departments, and branch libraries are posted at https://libraries.wm.edu/hours. Because these hours may vary, especially during interim periods and holidays, please check the posting or call (757) 221- 4636 to confirm hours before you visit.

Swem Library includes networked and wireless connections throughout the building. There are more than one hundred computers, including laptops, in the library. Numerous group study rooms are available for collaborative use.

### Collections and Reference Services
Contact (757) 221-3067 or www.libraries.wm.edu/services/reference/

### Government Information Services

Specialized indexes for microform collections of government titles are available in the department. Contact the Government Information Department at (757) 221-3065.

**Circulation Services**
Please visit the library's home page [www.libraries.wm.edu] and click on 'Your Records'. Contact the Circulation Department at (757) 221-3072.

**Reserve Readings**
Reserves Department at (757) 221-3072.

**Interlibrary Loans**
Interlibrary Loan Department at (757) 221-3089.

**Media Center**
Contact the Center at https://libraries.wm.edu/services/media-services or (757) 221-1378 or sms/text 757-561-0791.

**Special Collections Research Center**
Special Collections at http://libraries.wm.edu/scrc/index.cfm.

## William & Mary Departmental Libraries

For more information about W&M's departmental libraries, please visit www.libraries.wm.edu.

- Chemistry Library, Integrated Science Center Room 1022, (757) 221-3119, contains approximately 12,000 volumes and journals.
- Geology Library, contains 17,000 volumes, journals and over 21,000 maps, but all materials have been transferred to Swem Library or the off-site stacks and materials are available via Swem Library's online catalog, https://libraries.wm.edu/.
- Music Library, 250 Ewell Hall, (757) 221-1074, contains more than 18,000 sound recordings, 10,000 pieces of printed music, and video recordings of musical performances and musical instruction.
- Physics Library, 151 Small Hall, contains over 30,000 volumes and journals. Anyone with card access to the building can use the library 24/7.

Other William & Mary libraries include the Business/Professional Resource Center (757) 221-2916, https://mason.wm.edu/programs/undergraduate/careers/resources/; Education/Learning Resource Center (757) 221-2311; Law (757) 221-3255, http://law.wm.edu/library/home/index.php; and Marine Science (804) 684-7116, www.vims.edu/library/.

- The Law Library-the oldest in America-is home to the historic Thomas Jefferson Collection, as well as primary and secondary source materials covering the entire breadth of Anglo-American law. (757) 221-3255.
- The Mason School of Business Library, located on the second floor of the stunning Alan B. Miller Hall, offers the latest online tools, journals and videos for studying real-world business practices. (757) 221-2916.
- The William J. Hargis, Jr. Library at VIMS holds the ever-expanding collection of marine science reports, studies, theses and scholarly papers produced by VIMS staff and students. (804) 684-7116.
- The Education Library re-located to its new home in the cutting-edge School of Education building in 2010. (757) 221-2311.

## Information Technology

**www.wm.edu/it/**
**(757) 221-4357 (HELP)**

William & Mary's Information Technology department is devoted to assisting students and providing invaluable resources through one-on-one consultations, the Technology Support Center, and our extensive web site. With these points of interaction, we hope to help faculty, staff, and students become proficient users of campus technology. IT maintains a wide range of computing support for students, from answering questions about personal computers, to PAC Labs. We offer guidance and training in the areas of software setup and use, network connection and navigation, and general computer operatio

### Public Access Computing Labs

**http://www.wm.edu/offices/it/services/computerlabs/locations/index.php**

PACLabs are provided across campus to efficiently attend to the needs of the university's students, staff, and faculty.

### Academic Software

**www.wm.edu/offices/it/a-z/software/index.php**

The Software Repository has a collection of free and licensed software for the W&M community.

# Graduate Arts & Sciences

**Office of Graduate Studies and Research**
Stetson House, Room 201
232 Jamestown Road
Phone: 757-221-2467
Fax: 757-221-4874
Website: http://www.wm.edu/as/graduate



**Additional Information**



## Graduate Programs in Arts & Sciences

The Faculty of Arts and Sciences offers programs leading to the following degrees:

- Master of Arts:
  American Studies, Anthropology, Biology, Chemistry, and History
- Master of Science:
  Applied Science, Biology, Chemistry, Computer Science (including specializations in computational operations research and computational science), Psychological Sciences, and Physics
- Master of Public Policy
  Doctor of Philosophy:
  American Studies, Anthropology, Applied Science, Computer Science (including a specialization in computational science), History, and Physics (including a specialization in computational science)
- Combined Degrees:
  M.A. in American Studies/J.D. from the School of Law
  M.S. in Chemistry/Ph.D. in Applied Science
  M.P.P./J.D. from the School of Law
  M.P.P./M.B.A. from the Mason School of Business
  M.P.P./M.Ed. from the School of Education
  M.P.P./Ed.D. from the School of Education
  M.P.P./Ph.D. from the School of Education
  M.P.P./M.S. in Computational Operations Research
  M.P.P./M.S. or M.P.P./Ph.D. in Marine Science

William & Mary's other graduate and professional schools offer programs leading to the following degrees:

- School of Law: J.D. and LL.M. in the American Legal System
- Mason School of Business: Full-time M.B.A/Flex M.B.A., Executive M.B.A., M.Acc., M.S.
- School of Education: M.Ed., M.A.Ed., Ed.S., Ed.D., Ph.D.
- School of Marine Science: M.S. and Ph.D. Marine Science
- Combined Degrees: J.D./M.B.A. and M.B.A./M.Acc.

## A&S: Graduate Studies Advisory Board

The Graduate Studies Advisory Board is a group of educational, corporate, and community leaders with a commitment to enhancing the quality of graduate education in Arts & Sciences at William & Mary.

The missions of the Arts & Sciences Graduate Studies Advisory Board, established in 2004, are:

- Development/fundraising to increase graduate Arts & Sciences financial resources.
- Assisting in the building of a graduate Arts & Sciences community.
- Enhancing professional development opportunities for graduate students.
- Advocating for graduate Arts & Sciences within the W&M community.

The Graduate Studies Advisory Board plays a vital role in advancing William & Mary's graduate programs in Arts & Sciences. The board has worked to establish Distinguished Thesis and Dissertation Awards, Recruitment Fellowships, Awards for Excellence in Scholarship, Awards for Excellence in Undergraduate Mentoring, and the Graduate Faculty Mentoring Award, as well as taking an active role in supporting the annual Graduate Research Symposium.

The Board meets twice annually, in the fall and spring. The spring meeting follows the annual Arts & Sciences Graduate Research Symposium in March.

Members make a meaningful annual financial commitment in support of Graduate Studies Advisory Board goals.

## A&S: Academic Calendar

- Fall Semester 2019
- Spring Semester 2020
- Summer Sessions 2020

### Fall Semester 2019

| | |
|---|---|
| July 29-August 27 | Registration of New Graduate Students |
| August 26 | Mandatory New A&S Graduate Student Orientation: 10:00 a.m. |
| August 28 | Beginning of Classes: 8 a.m. |
| September 6 | Last day to add/drop courses |
| October 1 | Deadline to file the online Graduation Application form with the University Registrar to graduate in January 2020, May 2020 and August 2020 |
| October 12-15 | Fall Break |
| October 25 | End of ninth week of classes |
| November 1 | Pre-Defense Deadline for Students Submitting a Thesis or Dissertation for January 2020 Graduation |
| November 15 | Thesis/Dissertation Defense Completion Deadline for January 2020 Graduation |
| November 22 | Final Submission Deadline for A&S graduate students to satisfy degree requirements for January 2020 Graduation |

| | |
|---|---|
| Nov 27-Dec 1 | Thanksgiving Holiday: 8 a.m. Wed - 8 a.m. Mon |
| December 6 | Deadline to file the paper Notice of Candidacy form with the Graduate Registrar to graduate in May 2020 and August 2020 |
| December 6 | End of Classes: 5 p.m. |
| December 7-8 | Reading Period |
| December 9-13 | Examinations |
| December 14-15 | Reading Period |
| December 16-18 | Examinations |
| January 17, 2020 | January 2020 Conferral Date |

## Spring Semester 2020

| | |
|---|---|
| January 1-21 | Registration of New Graduate Students |
| January 22 | Beginning of Classes: 8 a.m. |
| January 31 | Last day to add/drop courses |
| February 15 | Deadline to submit the online Intent to Graduate Form to the OGSR |
| March 7-15 | Spring Break |
| March 20 | End of ninth week of classes |
| March 20-21 | 19th Annual Graduate Research Symposium |
| April 3 | Pre-Defense Deadline for Students Submitting a Thesis or Dissertation for May 2020 Graduation |
| April 17 | Thesis/Dissertation Defense Completion Deadline for May 2020 Graduation |
| April 24 | Final Submission Deadline for A&S graduate students to satisfy degree requirements for May 2020 Graduation |
| May 1 | End of Classes: 5 p.m. |
| May 2-3 | Reading Period |
| May 4-8 | Examinations |
| May 9-10 | Reading Period |
| May 11-13 | Examinations |
| May 16 | May 2020 Conferral Date |

## Summer Semester 2020

| | |
|---|---|
| June 1 | Beginning of First Session |
| July 3 | End of First Session |
| July 6 | Beginning of Second Session |
| July 10 | Pre-Defense Deadline for Students Submitting a Thesis or Dissertation for August 2020 Graduation |
| July 24 | Thesis/Dissertation Defense Completion Deadline for August 2020 conferral of degrees |
| July 31 | Final Submission Deadline for A&S graduate students to satisfy degree requirements for August 2020 Graduation |
| August 7 | End of Second Session |
| August 21 | August 2020 Conferral Date |

**NOTE: Additional dates and deadlines of importance can also be found on the Academic Calendars & Exam Schedules pages of the University Registrar's web site www.wm.edu/registrar. Calendar dates may be subject to change.**

## A&S: Graduate Regulations



## A&S: Organization of Graduate Programs

There is a standing Committee on Graduate Studies (COGS) consisting of faculty members who have been designated as Director of Graduate Studies for each Arts & Sciences department or program that grants graduate degrees. It is chaired by the Dean of Graduate Studies and Research. The Committee on Graduate Studies makes recommendations to the Faculty of Arts & Sciences regarding policy, and carry out established policy, with respect to admissions, curricula, degree requirements, and academic standards in programs leading to the degrees of Master of Arts, Master of Science, Doctor of Philosophy, and such other earned post-baccalaureate degrees as may fall within the jurisdiction of the Faculty of Arts & Science; and, concurrently with other faculties of the university, for all programs in which members of the Faculty of Arts & Sciences participate substantially. Most administrative matters require the approval of the Dean of Graduate Studies and Research.

## A&S: Admission



### Application Fee

A non-refundable processing fee of $50 is required for application for admission to graduate study in Arts & Sciences. This fee is not credited to the student's account. There is no application fee for admission as a non-degree seeking (post-baccalaureate) student.

### Procedure

William & Mary uses an online application system.

Additional information about admission to graduate study should be requested from the director of graduate studies in the program to which the applicant intends to apply. Beginning graduate students may enter in the fall, spring, or summer session of each year at the discretion of the program's graduate committee. Applicants should be aware that deadlines for submitting the application package vary with the individual programs; consult the graduate program of interest for its application deadline or refer to the program's website. Applications submitted after the program's deadline may be evaluated if space is available. Non-degree seeking applicants should apply as non-degree seeking (post-baccalaureate) students through the Office of the University Registrar.

A student can be enrolled in only one graduate program in A&S, unless the programs are listed in this catalog as combination degree programs. Exceptions require written approval from the Dean of Graduate Studies and Research and the Directors of Graduate Studies for both degree programs. In general, exceptions will only be approved for students who have completed all of the coursework required for one of the A&S degree programs. A student cannot receive stipend or tuition funding simultaneously from more than one W&M degree program, unless the degree programs are listed as combination at the front of this catalog.

Some programs require additional supplementary information (e.g., GRE subject test score or a writing sample) to complete an application to their program. Consult the degree program's admissions requirements regarding supplementary application material that must be received before your application can be given full consideration.

## Official Transcripts

Applicants are required to provide official transcripts or marks statements and degree certificates from all institutions of higher education that they have attended. These documents will be considered official when transmitted in one of the following ways:

- Submitted in the institution's sealed envelope and **sent directly to the degree program to which you are applying** by the Registrar at that institution. Be sure to provide the correct mailing address for the program to ensure that your transcript, marks statement, or degree certificate is received. If you do not use the correct mailing address, there is a good chance that your transcript will be misdirected, thus delaying your consideration for admission.
- **U.S. institutions only** may electronically submit transcripts to Wanda Carter in the Office of Graduate Studies and Research via the institution's electronic vendor and using secure portals. A transcript sent electronically by the applicant or through open email or portals will not be accepted as official. Transcripts submitted electronically by an international institution will not be accepted.
- Submitted in the institution's sealed and stamped envelope and either mailed or delivered by you to the program to which you are applying. The transcript must be placed by the Registrar at the institution in an official university envelope addressed to you. **In addition to sealing the envelope, the Registrar at the institution must date and sign, stamp, or place the seal of the institution on the back flap**. Upon receipt by the graduate program to which you are applying, if there are any signs that the envelope has been opened or tampered with in any way, the transcript will be rejected.

William & Mary reserves the right to assess whether transcripts submitted electronically or directly by the applicant in the institution's sealed and stamped envelope will be considered official.

## Graduate Record Exam (GRE) Scores

The results of all three portions of the GRE General Test must be received directly from the Educational Testing Service (ETS). Use the William & Mary institution code 5115 to ensure that your scores are sent to William & Mary. Only scores sent directly to William & Mary by ETS will be accepted. If you take the computer-delivered GRE General Test, your official scores will be available in your ETS Account and sent to the institutions you designated approximately 10-15 days after your test date. ETS releases electronic test scores to institutions every Wednesday and Friday after 6 pm. If you take the paper-delivered test, your official scores will be available in your ETS Account and sent to the institutions you designated within five weeks after your test date. For individuals testing on or after July 1, 2016, GRE test scores are valid for five years after your **test administration date**. For example, scores for a test

taken on July 3, 2019, are reportable through July 2, 2024. For tests taken prior to July 1, 2016, scores are reportable for five years following the testing year in which you tested (July 1- June 30).

### Official TOEFL or IELTS scores

If English is not your first language, your TOEFL or IELTS scores are required and must be sent directly to William & Mary by the Educational Testing Service or the International English Language Testing System. TOEFL and IELTS scores are valid only for two years after the test date; only scores sent directly by either ETS or IELTS are accepted.

Upon the recommendation of the graduate program to which you are applying, the TOEFL/IELTS requirement can be waived for applicants who will have received a degree from a college or university in which English is the primary language of instruction. A transcript is required as evidence of successful instruction in English as a primary language. Contact the graduate program to which you are applying to request such a waiver.

Admitted graduate students whose first language is not English are required to take an English language proficiency test when they arrive on campus. This requirement includes those international students who have taken the TOEFL exam, taken the IELTS exam, or requested and received a waiver as a consequence of having earned a degree from a college or university in which English is the primary language of instruction.

### Degree Seeking Students

For admission an applicant must have completed the requirements for a bachelor's degree at an accredited institution, must have a cumulative grade point average of 3.0 or more on a 4.0 scale, and must have the recommendation of the graduate committee in the program in which he or she intends to study for a degree. The requirement of a minimum cumulative grade point average of 3.0 can be waived. The petition for such a waiver is handled by the Arts & Sciences graduate program to which the candidate is seeking admission, with approval for the waiver at the discretion of the Committee on Graduate Studies and the Dean of Graduate Studies and Research.

All recommendations for admission, except for non-degree seeking students, must be approved by the Dean of Graduate Studies and Research, Arts & Sciences. No student will be admitted later than one month before the start of the semester. Because of the time required to process visa applicants, no foreign student may be admitted later than three months before the start of the semester.

All requirements for the master's degree must be completed within six years from the first term of enrollment in the master's program, excluding periods of approved leave and military service.

All requirements for the Ph.D. must be completed within seven years from the first term of enrollment in the Ph.D. program, excluding periods of approved leave and military service. For a student enrolled in a master's program in Arts & Sciences who subsequently advances to candidacy in the doctoral program in the same field, the terms of enrollment in the master's program will count towards the seven-year limit for the doctoral degree unless otherwise stated in the letter of admission.

### Non-Degree Seeking (Post-Baccalaureate) Students

Graduate courses in Arts & Sciences (courses numbered 500 and above) are restricted to degree-seeking students. In special circumstances, individuals who wish to take graduate courses but are not considered degree-seeking students may be allowed to apply to William & Mary as a non-degree seeking (post-baccalaureate) student through the Office of the University Registrar. Prospective students should contact the program of interest for consideration. Only individuals who have been approved by the program will

be allowed to register. Non-degree seeking students will need to obtain permission from the instructor and the program director of graduate studies prior to admission.

The Permission for Graduate Course for Unclassified Student form is available through the Office of Graduate Studies and Research, from the program where you intend to take classes, and on the website of the University Registrar. Complete the form and have it signed by the instructor, the Director of Graduate Studies in the department or program, and the Dean of Graduate Studies and return it to the Office of the University Registrar with your Non-Degree Seeking Application for admission. Students must present evidence to the Office of the University Registrar that they have earned a bachelor's degree from an accredited institution. Generally, non-degree seeking students must present academic or other credentials comparable to those of regularly admitted students. Non-degree seeking students must reapply each semester.

## Transfer of Graduate Credit

On the recommendation of the student's graduate program committee, and with the approval of the Dean of Graduate Studies and Research, a student who has matriculated into a graduate program in Arts & Sciences may transfer up to six hours of graduate credit earned at another accredited institution of higher learning and apply these six credits toward the credits needed for an advanced degree in Arts & Sciences. The credits must have been earned in courses appropriate to the student's program at William & Mary, must fall within the time specified by the general Arts & Sciences requirements for degrees, and cannot have been used by the student to satisfy any undergraduate or other graduate degree requirements. An official transcript must be provided to the Office of Graduate Studies and Research. Credit may be transferred only for courses in which the student received a grade of B or higher, and will not be counted in compiling his or her cumulative grade point average at William & Mary.

## Graduate Degree Credit Earned by Non-degree Seeking Students

Credit for graduate courses taken at William & Mary by a student (not undergraduate) before degree admission to a graduate program in Arts & Sciences or while registered through the Office of the University Registrar at William & Mary as a non-degree seeking student may be carried over into a graduate degree program if:

- the action is recommended by the director of the student's graduate program and approved by the Dean of Graduate Studies and Research;
- the amount does not exceed 12 credits;
- the work has received grades of B or better;
- the work is not more than two years old; and
- the student applies for and is granted formal admission into a graduate degree program in Arts & Sciences.

A retroactive credit form may be obtained from the Office of Graduate Studies and Research.

## Graduate Degree Credit Earned by William & Mary Undergraduate Students

No graduate-level credits earned as an undergraduate at William & Mary can be used to meet the requirements for an Arts & Sciences graduate degree without written approval from the program's graduate committee and the Dean of Graduate Studies and Research after the student has been admitted to the graduate program.

With written approval from the program's graduate committee and the Dean of Graduate Studies and Research, an admitted graduate student may apply toward an advanced degree in Arts & Sciences part or all of the graduate-level credit earned at William & Mary as an undergraduate. The credits must have been earned in courses appropriate to the student's graduate program in Arts & Sciences and cannot have

been used by the student to satisfy any undergraduate degree requirements unless the student has been admitted to an approved accelerated degree path (see Public Policy). Credit can be considered for acceptance only for courses in which the student received a grade of B or higher. See the section on Grading and Repeated Courses for information on repeating an Arts & Sciences graduate course to earn graduate degree credit in Arts & Sciences.

### Campus Safety - Clery Act

William & Mary complies with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, commonly known as the Clery Act. Crime statistics and the annual Campus Safety Report are available from the Office of Compliance & Equity.

## A&S: Tuition & Fees



### Tuition

The College reserves the right to make changes in its charges for any and all programs at any time, after approval by the Board of Visitors. The tuition and fees for graduate students in Arts and Sciences, with the exception of Public Policy students, who register for nine semester hours of credit or more per semester is $8,220.00 per semester for residents of Virginia and $17,400.00 per semester for non-residents. Any student registered for nine hours or more per semester for any course level (graduate or undergraduate courses) is considered to be a full-time student and will be charged these full-time rates unless qualified to be a Research Graduate Student (see below). Per semester rates for entering Public Policy students are as follows: $13,962.00 for residents of Virginia and $19,247.50 for non-residents.

> Tuition for part-time students, at the graduate level, is as follows:
> $ 585.00 per semester hour for residents of Virginia
> $ 1,383.00 per semester hour for non-residents

Degree-seeking graduate students will be charged the part-time rates for part-time work (eight hours or less per semester) based on their established domiciliary status. Refer to the eligibility for in-state status page for a statement regarding in-state, out-of-state classification for tuition. Full-time non-resident degree-seeking graduate students who hold qualifying assistantships may, on the recommendation of the Dean of Graduate Studies and Research and approval of the Provost's Office, pay tuition at the resident rates. Rates for students who enroll in Summer Session will be charged on the same basis. Full-time enrollment in the summer is defined as a total of three hours or more in one summer session or in any combination of summer sessions, and half-time enrollment is defined as two hours.

Part-time students who are not enrolled as degree-seeking students at the College of William & Mary (non-degree seeking post-baccalaureate students), must complete the "Application to Determine Physical Residency and In-State Tuition Eligibility" (https://www.wm.edu/offices/registrar/documents/tuition/domicile_application.pdf) to determine eligibility for in-state tuition. Students determined to be domiciled outside of Virginia will pay out-of-state rates. Those determined to be residents will pay according to the in-state rates.

Charges for part-time students to audit courses are the same as courses taken for credit.

Additional information concerning 2019-2020 Graduate Tuition & Fees can be found on the Student Accounts webpage at http://www.wm.edu/offices/financialoperations/sa/tuition/graduate/index.php

## Research Graduate Students

Upon the recommendation of a student's graduate program and approval by the Dean of Graduate Studies and Research, a student's eligibility for Research Graduate Student status can be established if the following conditions are met:

- The student must have successfully completed all course work, excluding the required semester credit hours of 700 (Thesis) or 800 (Dissertation), necessary to satisfy the requirements for their degree and their degree program, while sustaining a minimum cumulative grade point average of 3.0 on a 4.0 scale.
- The student must not be employed significantly in any academic activity other than research and writing in fulfillment of degree requirements. A student holding a Graduate or Research Assistantship remains obligated to perform the duties assigned to them by their graduate program or research advisor.
- The student must be present on campus or engaged in field work approved by their advisor and their Director of Graduate Studies.

While classified as a Research Graduate Student, a student must register for 12 credit hours per semester, or 6 credit hours in the summer, of either the Directed Studies, Thesis, or Dissertation course for which payment of the part time rate of one credit hour is required. A Research Graduate Student may take courses other than 666/766 (Directed Studies), 700 (Thesis), or 800 (Dissertation), but only if payment for additional tuition has been made. If a student takes any additional courses while classified as a Research Graduate Student, the additional courses taken while classified as a Research Graduate Student cannot be used to fulfill degree requirements.

A Research Graduate Student is not eligible for services that are paid for by fees (e.g., the Student Health Center, the Counseling Center, and the Campus Recreation Center) unless the required additional fees (charged per semester) are paid.

## Continuous Enrollment Status

Upon the recommendation of a student's graduate program and approval by the Dean of Graduate Studies and Research, a student can be considered for Continuous Enrollment status if the following conditions are met:

- The student must have successfully completed all required course work, including the required semester credit hours of 700 (Thesis) or 800 (Dissertation), necessary to satisfy the requirements for their degree and their degree program, while sustaining a minimum cumulative graduate point average of 3.0 on a 4.0 scale. All that remains to satisfy degree requirements is the completion and successful defense of either a dissertation or a thesis. A student is not eligible for Continuous Enrollment status if additional credit hours are needed to satisfy degree requirements.
- The student must satisfy the guidelines specific to their graduate program regarding eligibility for Continuous Enrollment status.

To secure Continuous Enrollment status, the student must request permission from their program to enroll in GRAD 999, and must pay the Continuous Enrollment Fee. A student in Continuous Enrollment status may not register for any other credit-bearing courses at William & Mary.

Continuous Enrollment status allows students to maintain active graduate student status with William & Mary and to access some William & Mary resources, including the libraries, email, and laboratories. A student with Continuous Enrollment status may obtain access to the Counseling Center and the Campus

Recreation Center upon payment of the appropriate fees. The services of the Student Health Center are not available to students with Continuous Enrollment status.

Continuous Enrollment status does not apply to students who have been officially granted an approved leave of absence or a medical withdrawal.

If the student's deadline for degree completion has passed, registration for Continuous Enrollment is not sufficient to maintain good academic standing; the student must also request an extension (see section on Time Limits for Degrees and Extensions).

The following students are not eligible for Continuous Enrollment status and must register either as a regularly enrolled degree-seeking student or as a full-time Research Graduate Student:

- Students employed in a graduate student appointment (i.e., Graduate Assistant, Research Assistant, Teaching Assistant, Teaching Fellow, etc.).
- In general, international students on student visas. Questions about eligibility for Continuous Enrollment status must be directed to Office of International Students, Scholars, and Programs.
- Students who need to maintain a full-time registration status for the purpose of deferring the repayment of student loans.
- Students who, upon payment of the appropriate premium or fee, wish to be eligible either for the William & Mary Student Health Insurance Plan or to use the Student Health Center.
- Students who wish to be eligible for either hourly student employment at William & Mary or for any form of student financial aid that requires full-time registration status.

## A&S: Financial Aid



### Graduate Assistantships, Scholarships, and Fellowships

Graduate assistantships, scholarships, and fellowships are available in many departments/programs for full-time graduate students. For details, applicants should write to the department/program. Application for aid should be made on the application form for admission to graduate study. Awards are made on the basis of merit. Graduate assistants work on average twenty hours a week or less during the academic year or the summer depending upon the stipend awarded. They must satisfactorily carry out the duties assigned by their departments/program committees, must make satisfactory progress in their degree programs as defined by the College degree requirements and the regulations of their departments or program committees, and may not hold any other employment or appointment of a remunerative nature during the term of their assistantships without approval of the Dean of Graduate Studies and Research. Failure to comply with these conditions will lead to revocation of appointments. Approval from the Dean of Graduate Studies and Research for additional employment/appointment of a remunerative nature of no more than 9 additional hours per week, will be based on supporting written statements from the student's thesis/dissertation advisor and Director of Graduate Studies that the additional employment is not anticipated to adversely affect the student's progress toward the degree. Such approval does not imply exemption by the Internal Revenue Service from Social Security and Medicare taxes. To ensure that their IRS status as students is maintained, students should consult the appropriate IRS documents and/or a tax advisor. It is the responsibility of international students to understand their visa restrictions before accepting on-campus or off-campus employment.

Summer stipend or fellowship funds administered through the Office of Graduate Studies and Research will not be approved for payment to new domestic graduate students (i.e., domestic students who have not been previously enrolled in their W&M graduate program) during the summer sessions (approximately June 1 - August 1) unless the student has been officially admitted to the W&M graduate program for the summer and is enrolled in a W&M summer course for zero or more graduate credits.

New international W&M graduate students who are required by their department to arrive more than 30 days before the first day of class must be admitted and enrolled as full-time W&M graduate students during the summer.

Fellowships and scholarships will be revoked if students fail to make satisfactory progress toward their degrees or fail to register as full-time students. Graduate assistants are normally paid in equal installments (minus deductions for federal and state withholding taxes and applicable federal social security taxes) on the first and sixteenth of each month. The portion of a graduate fellowship or scholarship applicable to a semester is initially applied to payment of tuition for that semester. Any amount remaining after payment of tuition may be refunded to the student. Students wishing to apply to student loans should submit the Free Application for Federal Student Aid (FAFSA) by March 1 (new students) or March 15 (returning students). Award letters will be sent in June. For more information, write to aid@wm.edu or visit the William and Mary Financial Aid web site (https://www.wm.edu/admission/financialaid/).

### Veterans Educational Benefits

William & Mary appreciates the sacrifices that our active duty, veterans, reservists, national guard and military dependents make as they serve our country. We are committed to our active duty service members, their dependents and veterans in transitioning to the College and being successful. Honorably discharged members of the U.S. armed forces are eligible for an application fee waiver by uploading a copy of their Leave Earning Statement (LES) or DD214 directly to their application for admission. Please visit our Military and Veteran Students webpage for additional information about Veterans Education Benefits.
(https://www.wm.edu/offices/registrar/studentsandalumni/militaryandveterans/index.php).

### Information for Senior Citizens

Senior Citizens may take courses at the College for either audit or credit. Registration for Senior Citizens begins the first day of classes of each term. Please visit the Registrar's webpage for additional information (https://www.wm.edu/offices/registrar/studentsandalumni/nds/index.php).

## A&S: Registration



### Registration Requirements

All full-time and part-time degree-seeking graduate students in Arts & Sciences must maintain an appropriate registration status (i.e., Standard, Research Graduate Student, or Continuous Enrollment status) during all fall and spring semesters until all the requirements for the Arts & Sciences graduate degree for which they were admitted have been satisfied.

Unless granted a leave of absence or a medical withdrawal, a graduate student who fails to register each semester will have discontinued enrollment, and will be withdrawn from their graduate program in Arts &

Sciences by the Dean of Graduate Studies and Research. If the student wishes to resume progress toward the degree, it will be necessary to reapply for admission to the Arts & Sciences graduate degree program and meet any changed or additional degree requirements established in the interim. In addition, the student will owe Continuous Enrollment fees for the term(s) for which they were not enrolled.

Due to the high cost of health care in the U.S. and the importance of adequate health insurance coverage, William & Mary requires all full-time graduate students to be enrolled in the university-endorsed Student Insurance Plan. The cost will be billed to your student account in two installments (fall and spring semester) unless proof of other adequate health insurance coverage is furnished. Students who already have health insurance for the entire year/term must submit a Waiver Request by the posted deadline each academic year, and the Waiver Request must be approved to avoid being enrolled in the Student Insurance Plan. The services of the Student Health Center, the Counseling Center, and the Campus Recreation Center are not available to part-time students unless the required additional fees (charged per semester) are paid.

If an Arts & Sciences graduate student enrolls in a degree-granting program at another academic institution without prior approval from their advisor, their Director of Graduate Studies, and the Dean of Graduate Studies and Research, then they will be withdrawn from their graduate program in Arts & Sciences by the Dean of Graduate Studies and Research.

If an international Arts & Sciences graduate student transfers their student visa to another U.S. institution without prior approval from their advisor, their Director of Graduate Studies, and the Dean of Graduate Studies and Research, then they will be withdrawn from their graduate program in Arts & Sciences by the Dean of Graduate Studies and Research.

### Standard Registration Status

All graduate students registered for a course in their graduate program numbered 500 or above will receive graduate degree credit upon satisfactory completion of the course.

Graduate students are allowed to register for undergraduate courses in Arts & Sciences, which are numbered below 500, provided they submit the appropriate form with the approvals of the instructor and their Director of Graduate Studies, prior to registration. Enrollment is subject to review and approval by the Dean of Graduate Studies and Research. No credit towards a graduate degree is allowed for a course numbered below 500.

No credit towards a graduate degree is allowed for a course numbered above 499 in which a student receives a grade below C (grade point = 2.0); however, some graduate programs hold their students to higher standards.

With the approval of the Committee on Graduate Studies, 500-level graduate courses may be cross-listed with 400-level undergraduate courses. There are higher expectations and additional requirements for students taking the 500-level version of the course. Under no circumstances may any student receive credit for both the 400-level and 500-level versions of the same cross-listed course.

The expectation is that full-time graduate students in Arts & Sciences will register for a minimum of 12 graduate credit hours, but no more than 15 graduate credit hours. Students receiving financial aid (e.g., a Graduate Assistantship or a fellowship) must register for a minimum of 9 credit hours per semester to maintain their eligibility for financial aid.

### Research Graduate Student Status

Upon the recommendation of a student's graduate program and approval by the Dean of Graduate Studies and Research, a student's eligibility for Research Graduate Student status can be established if the following conditions are met:

- The student must have successfully completed all course work, excluding the required semester credit hours of 700 (Thesis) or 800 (Dissertation), necessary to satisfy the requirements for their degree and their degree program, while sustaining a minimum cumulative grade point average of 3.0 on a 4.0 scale.
- The student must not be employed significantly in any academic activity other than research and writing in fulfillment of degree requirements. A student holding a Graduate or Research Assistantship remains obligated to perform the duties assigned to them by their graduate program or research advisor.
- The student must be present on campus or engaged in field work approved by their advisor and their Director of Graduate Studies.

While classified as a Research Graduate Student, a student must register for 12 credit hours per semester, or 6 credit hours in the summer, of either the Directed Studies, Thesis, or Dissertation course for which payment of the part time rate of one credit hour is required. A Research Graduate Student may take courses other than 666/766 (Directed Studies), 700 (Thesis), or 800 (Dissertation), but only if payment for additional tuition has been made. If a student takes any additional courses while classified as a Research Graduate Student, the additional courses taken while classified as a Research Graduate Student cannot be used to fulfill degree requirements.

A Research Graduate Student is not eligible for services that are paid for by fees (e.g., the Student Health Center, the Counseling Center, and the Campus Recreation Center) unless the required additional fees (charged per semester) are paid.

## Continuous Enrollment Status

Upon the recommendation of a student's graduate program and approval by the Dean of Graduate Studies and Research, a student can be considered for Continuous Enrollment status if the following conditions are met:

- The student must have successfully completed all required course work, including the required semester credit hours of 700 (Thesis) or 800 (Dissertation), necessary to satisfy the requirements for their degree and their degree program, while sustaining a minimum cumulative graduate point average of 3.0 on a 4.0 scale. All that remains to satisfy degree requirements is the completion and successful defense of either a dissertation or a thesis. A student is not eligible for Continuous Enrollment status if additional credit hours are needed to satisfy degree requirements.
- The student must satisfy the guidelines specific to their graduate program regarding eligibility for Continuous Enrollment status.

To secure Continuous Enrollment status, the student must request permission from their program to enroll in GRAD 999, and must pay the Continuous Enrollment Fee. A student in Continuous Enrollment status may not register for any other credit-bearing courses at William & Mary.

Continuous Enrollment status allows students to maintain active graduate student status with William & Mary and to access some William & Mary resources, including the libraries, email, and laboratories. A student with Continuous Enrollment status may obtain access to the Counseling Center and the Campus Recreation Center upon payment of the appropriate fees. The services of the Student Health Center are not available to students with Continuous Enrollment status.

Continuous Enrollment status does not apply to students who have been officially granted an approved leave of absence or a medical withdrawal.

If the student's deadline for degree completion has passed, registration for Continuous Enrollment is not sufficient to maintain good academic standing; the student must also request an extension (see section on Time Limits for Degrees and Extensions).

The following students are not eligible for Continuous Enrollment status and must register either as a regularly enrolled degree-seeking student or as a full-time Research Graduate Student:

- Students employed in a graduate student appointment (i.e., Graduate Assistant, Research Assistant, Teaching Assistant, Teaching Fellow, etc.).
- In general, international students on student visas. Questions about eligibility for Continuous Enrollment status must be directed to Office of International Students, Scholars, and Programs.
- Students who need to maintain a full-time registration status for the purpose of deferring the repayment of student loans.
- Students who, upon payment of the appropriate premium or fee, wish to be eligible either for the William & Mary Student Health Insurance Plan or to use the Student Health Center.
- Students who wish to be eligible for either hourly student employment at William & Mary or for any form of student financial aid that requires full-time registration status.

## Repeated Courses

Certain courses are specifically designated in the Graduate Arts & Sciences catalog as courses that may be repeated for credit. With the exception of these specially designated courses, no course for graduate credit in which a graduate student receives a grade of G, I, or P, or a grade between A and B-, may be repeated except as an audit. A student who receives a grade of C+ or lower in a course may repeat that course one time; see Grading and Repeated Courses. Students are responsible for ensuring they do not register more than once for a course that may not be repeated.

## Auditing

Any graduate student may audit a graduate or undergraduate course with permission of the instructor and Director of Graduate Studies for the student's graduate program. The Arts & Sciences graduate Audit Form must be completed and submitted to the Office of Graduate Studies and Research prior to the end of the add/drop period as defined in the A&S Academic Calendar.

Before beginning the audit, the student and the instructor must agree on what is required for the audit to be successful. The audited course will be listed on the student's official William & Mary transcript with a grade of either 'O' for a successful audit or 'U' for an unsuccessful audit.

## Language Requirements

In graduate degree programs for which there are language requirements, the graduate program in which a student is enrolled will determine the method(s) by which a student satisfies the language requirements.

For students who wish instruction in a language, the Departments of Classical Studies and Modern Languages and Literature recommend courses numbered 101-102 for those with fewer than two high school units in a language, 103-104 or 201-202 for those with fewer than three. Successful completion of a course at the 202 level, or the equivalent, usually is sufficient to pass examinations for reading knowledge.

## Registration for Courses Outside of the Program

A graduate student in Arts & Sciences may be allowed to register for graduate credit for graduate courses taken in another graduate program in Arts & Sciences. If the graduate course taken outside of the student's graduate program is listed in the Graduate Arts & Sciences Catalog for the year in which the student matriculated into the graduate program as one for which graduate degree credit earned can be used to satisfy the student's degree requirements, then no advance permission is required. Otherwise, an Arts & Sciences graduate student is allowed to register for graduate courses in other graduate programs in Arts & Sciences provided the student submits, prior to the end of the add/drop period, the Permission for Graduate Course for Graduate Credit form with the approvals of the instructor and the student's Director of Graduate Studies. Enrollment is subject to review and approval by the Dean of Graduate Studies and Research.

A graduate student in Arts & Sciences may be allowed to register for graduate credit for graduate courses taken in the School of Education, the School of Marine Science, the School of Business, or the School of Law, provided the student submits, prior to the end of the add/drop period, the Permission for Graduate Course for Graduate Credit form with the approvals of the instructor, the student's Director of Graduate Studies, and the designated official for the William & Mary academic unit in which the course is being taken. Enrollment is subject to review and approval by the Dean of Graduate Studies and Research.

A graduate student in Arts & Sciences may be allowed to register for undergraduate courses taken in another program in Arts & Sciences, provided the student submits, prior to the end of the add/drop period, the Permission for Undergraduate Course form with the approval of the instructor and the student's Director of Graduate Studies. Enrollment is subject to review and approval by the Dean of Graduate Studies and Research. Credit earned for an undergraduate course (i.e., a course numbered below 500) may not be used to satisfy graduate degree requirements, but will be listed on the student's official William & Mary transcript with the grade assigned by the instructor for the course.

## Changes in Registration

The last day for Arts & Sciences graduate students to make changes to their course registration will be the last day of the add/drop period as defined in the A&S Academic Calendar. Changes to a student's course registration after the last day of the add/drop period must be initiated through the Director of Graduate Studies for the student's graduate program using an Add/Drop/Withdrawal form and requires the approval of the instructors involved, the student's Director of Graduate Studies, and the Dean of Graduate Studies and Research.

If an Arts & Sciences graduate student drops a course or courses before the end of the ninth week of classes but remains registered for other academic work, the course or courses dropped will be expunged from the student's record. If the student withdraws from a course or courses after the end of the ninth week of classes through the last day of classes, but remains registered for other academic work, the grade 'W' or 'F' will be awarded by the instructor in the course depending upon whether or not the student was passing the course at the time of the withdrawal.

If an Arts & Sciences graduate student withdraws from William & Mary before the end of the ninth week of classes, a grade of 'W' will appear on the record for each course in progress at the time of withdrawal. After the end of the ninth week of classes through the last day of classes, students who withdraw from William & Mary will be awarded a 'W' or 'F' by the faculty member teaching each course in progress at the time of withdrawal. Students may not withdraw from a course after the last day of classes.

If for medical reasons an Arts & Science graduate student does not complete a course, "WM" will be entered on their transcript upon approval of the Dean of Students and the Medical Review Committee; see Leaves of Absence/Withdawals.

See A&S Financial Obligations for regulations governing refunds of tuition and fees.

## A&S: Grading and Academic Progress



### Grading and Quality Points

The grades A, B, C, D, F and either P or U (in certain courses) are used to indicate the quality of work in a course. Also used are + and - notations, except that there is no A+. W indicates that a student withdrew from William & Mary before the end of the ninth week of classes or dropped a course between the end of the ninth week of classes and the last day of classes and was passing at the time that the course was dropped. For each semester credit in a course in which a student is graded quality points are awarded as shown on the following table:

| | | | |
|---|---|---|---|
| A = 4 | B+ = 3.3 | C+ = 2.3 | D+ = 1.3 |
| A- = 3.7 | B = 3.0 | C = 2.0 | D = 1.0 |
| | B- = 2.7 | C- = 1.7 | D- = 0.7 |

P carries credit but is not included in a student's quality point average. A course graded C-,D+,D, D- or F is included in the student's quality point average but carries no credit towards the graduate degree.

A grade of I on the transcript indicates that because of illness or other major extenuating circumstances the student has postponed, with the explicit consent of the instructor, the completion of certain required work. A grade of I automatically reverts to F at the end of the next semester if the postponed work has not been completed, unless the instructor requests an extension for another semester. An I may not be extended more than once without the approval of the student's graduate director and the Dean of Graduate Studies and Research. A degree will not be conferred if an incomplete (I) grade is on the student's record.

G also indicates a deferred grade reserved for circumstances where there is a delay in awarding a final grade that is not caused by the student. The situation is typically structural, as when a student is researching and writing his or her thesis or dissertation. The grade G is temporarily assigned until the semester when the work is complete. The G is not used as an alternative to I, which is used when the student is the cause for the non-completion. Unlike the deferred grade I, G does not automatically revert to F after one semester.

U indicates unsatisifactory performance for the term in either 700, Thesis, 710, Research Project, or 800, Dissertation. U also is used to indicate an unsuccessful audit. A grade of U carries no credit towards the graduate degree.

O indicates a student has successfully audited a course, but carries no credit towards the graduate degree.

### Grading and Repeated Courses

A William & Mary graduate student who receives a grade of C+ (2.3) or lower in an Arts & Sciences graduate course may repeat that course one time for credit, upon approval of both the instructor of the course and the graduate director for the student's program. When such a repeat attempt is approved, the grades for both attempts will count in the cumulative GPA, but only the most recent attempt will count toward the degree.

A William & Mary undergraduate student who receives a grade of B- (2.7) or lower in an Arts & Sciences graduate course taken for graduate degree credit may repeat that course one time for credit. There are two options:

1. The course can be repeated as an undergraduate student at William & Mary, after securing the required approvals for earning graduate degree credit. If so, the program's graduate committee and the Dean of Graduate Studies and Research may choose to accept either the most recent grade or to calculate the student's graduate quality point average and graduate cumulative grade point average at William & Mary using both the original grade and the grade earned in the repeated course.

2. If the student subsequently matriculates into the graduate program which offered the course, the student may repeat the course with the permission of the program's graduate committee and the Dean of Graduate Studies and Research. The grade earned after retaking the course as a graduate student will be the grade used to determine if the course can be used to satisfy graduate degree requirements. The original attempt to take the course as an undergraduate for graduate degree credit will show up on the graduate transcript with the grade received; however, the grade earned for the original attempt will not be used to calculate the student's graduate quality point average and graduate cumulative grade point average as an Arts & Sciences graduate student. Credits can be considered for acceptance only for courses in which the student received a grade of B or higher. See the section on Grading and Repeated Courses for information on repeating an Arts & Sciences graduate course to earn graduate degree credit in Arts & Sciences.

## Grade Review Policy

A student who believes that a final course grade has been unfairly assigned may request a review of the grade within the first six weeks of the next regular semester following that in which the grade was assigned (see Grade Review Policy in Case of Withdrawal below in the event that the student is withdrawing). The expectation is that this review will be completed by the end of that semester in which it was requested.

The student first must confer with the instructor of the course to discuss the grade. The student may wish to ask about such matters as the particular strengths and weaknesses of his or her course work, the general grade scale used by the instructor, and the relative ranking of the student's work in the class as a whole.

If the issue remains unresolved the student may, within the first six weeks of the next academic semester for which the grade was received, present a written statement requesting a further review and giving a full explanation of the reasons for the request. The written statement must be sent to the instructor, the Director of Graduate Studies for the student's graduate program, the chair or program director of the graduate program in which the course was taught, and the Dean of Graduate Studies and Research. If the course is cross-listed in two or more graduate programs, the chair of the instructor's home department must be the one to receive the written statement. If the grade in question was given by the department chair, the program director, or the Director of Graduate Studies, then the student will ask the Dean of Graduate Studies and Research to appoint another faculty member in the graduate program to oversee the review process. Unless the chair, program director, Director of Graduate Studies, or faculty member appointed by the Dean of Graduate Studies and Research (in cases where the grade in question was given by the chair, the program director, or the Director of Graduate Studies) decides the student's case is

wholly without merit, he or she must discuss the matter with the instructor and seek to resolve the issue. This part of the review process should be completed within three weeks of receipt of the written statement by the student.

If the student is not satisfied with the outcome of the above procedure, he or she may appeal to the Dean of Graduate Studies and Research. Unless the Dean of Graduate Studies and Research decides the student's case is wholly without merit, he or she will ask the chair, the program director, the Director of Graduate Studies, or the faculty member appointed by the Dean of Graduate Studies and Research (in cases where the grade in question was given by the chair, the program director, or the Director of Graduate Studies) to appoint a committee of at least three faculty members in the graduate program who then will review all relevant and available materials supplied by the student, the instructor, or other individuals (when relevant). Both the student and the instructor have the right to meet with the committee.

After reviewing the matter, the committee must decide if it the grade should be changed and, if so, what the proper grade should be. It must inform the instructor and the student of its conclusions in writing and, if it concludes that the grade should be changed, recommend that the instructor change the grade accordingly.

If the instructor refuses to accept the committee's recommendation, and the committee believes that the faculty member is acting inappropriately in assigning the grade, then the committee may appeal to the Dean of Graduate Studies and Research. The decision by the Dean of Graduate Studies and Research to accept or reject the committee's recommendation will be final.

### Grade Review Policy in the Case of Withdrawal

In the case when an Arts and Sciences graduate student's grade(s) will result in withdrawal due to academic deficiency as specified by the regulations of the student's department/program, a review of the grade (see Grade Review Policy above) may be requested in writing by the student only within the week following the grading deadline for the semester when the grade was assigned or the submission of the grade by the instructor, whichever is later. The grade review must be completed prior to the first class day of the spring term (for review of fall grades submitted in the fall term), the first class day of the first summer session (for review of spring grades submitted in the spring term), or the first class day of the fall term (for review of summer grades submitted in the summer term). In the case of an Incomplete that is later changed to a grade, the grade review must be completed within two weeks of the grade review request. The time-line for the grade review will be shortened as needed to complete the grade review on schedule. The student will be withdrawn if the grade review does not result in a change of grade.

If the grade(s) will result in withdrawal due to academic deficiency and the student is receiving an assistantship or fellowship that is administered through the Office of Graduate Studies and Research, it is the responsibility of the department/program to request that the payments be terminated by the Office of Graduate Studies and Research at the end of the pay period during which the grading deadline fell or during which the deficient semester grade(s) were submitted by the instructor, whichever is later. Submission of a grade review request will not affect termination of the stipend. If the grade review results in a change of grade and consequently the student is not withdrawn, the assistantship or fellowship will be reinstated in full to include any payments not made after the original grade was received.

If the grades(s) will result in withdrawal due to academic deficiency and the student is receiving payment of tuition through the Office of Graduate Studies and Research, the tuition payment for the subsequent term will be withheld or rescinded. Submission of a grade review request will not affect termination of the tuition payment. If the grade review results in a change of grade and consequently the student is not withdrawn, the tuition payment will be reinstated in full.

## Continuance Requirement

To continue as a full-time graduate student, you will need to meet these minimal requirements.

| After Semester | Cumulative Graduate Degree Credits | Cumulative G.P.A. |
|---|---|---|
| 1 | 6 | 2.50 |
| 2 | 12 | 2.75 |
| 3 | 18 | 3.00 |

- Only W&M credit will count in determining whether students are meeting Continuance Standards.
- Students whose GPA falls below 3.0 in any semester will be placed on Academic Warning and receive a letter from the Dean of Graduate Studies and Research.
- Students whose academic work falls below the minimum GPA and/or earned credit Continuance Standard will be placed on Academic Probation for the following semester and receive a letter from the Dean of Graduate Studies and Research.
- Students on Academic Probation will not be removed from Academic Probation until they achieve a minimum cumulative GPA of 3.0.
- Students who are on Academic Probation may not receive any Incompletes for coursework during the semester(s) of probation.
- While on Academic Probation, students must earn a 3.0 semester GPA or better and pass at least six graduate credits. Failure to do so will result in Academic Suspension.
- Those suspended for academic deficiencies are not in good standing with William & Mary and are not automatically eligible for readmission. The Office of Graduate Studies and Research will not process an application for readmission from a student who has been suspended unless the student has been reinstated to good standing by the Arts & Sciences Committee on Graduate Studies.
- An Arts & Sciences graduate student may petition the Arts & Sciences Committee on Graduate Studies for an individual exception to the above Continuance Standards. Petition approval is not automatic and is generally given only when circumstances are extraordinary. If the request is related to a physical or mental health condition, the student must first complete a Medical Review Committee petition and submit it to the Office of the Dean of Students. (The Medical Review Committee Petition form is available on the web at http://www.wm.edu/offices/deanofstudents/topicforms/index.php.) The Arts & Sciences Committee on Graduate Studies will include the recommendation made by the Medical Review Committee when reviewing an individual exception to the above Continuance Standards.
- Coursework taken elsewhere while not in good standing will not be accepted for transfer at William & Mary.

## Satisfactory Progress

In addition to satisfying the Continuance Standards, at a minimum, a student must also make satisfactory progress toward the degree, as defined by the Committee on Graduate Studies (COGS) and the regulations of the student's department/program.

## Time Limits for Degrees and Extensions

A graduate student in Arts & Sciences is required to complete the degree requirements for the degree program to which they were admitted by the deadline specified in the letter of admission they received from the Dean of Graduate Studies and Research. The deadline will be established in accordance with the Requirements for Degrees. The deadline for completing the degree program may be extended as follows:

1. A student in good academic standing may request a leave of absence, including a leave for military service. See Leaves of Absence/Withdrawal.

2. A student in good academic standing may request one extension of the degree limit for a definite, stated period of time (up to one year), when extenuating circumstances warrant. Working with their advisor and the graduate director for their degree program, a student petitioning for an extension must document progress towards their degree and provide a plan for completing their degree requirements during the term of the extension period. In addition, a student must complete the Extension Request Form, secure a supporting letter from their primary advisor, and receive approval from the graduate director of the program to which the student was admitted, after which the graduate director is required to forward the petition to the Committee on Graduate Studies, which then will review the request and vote whether to approve. Ordinarily, an extension of the degree time limit may not be renewed.

Upon return from a leave of absence, or approval of an extension request, the Dean of Graduate Studies and Research will send the student a letter confirming the new deadline for the completion of all degree requirements.

In the event a student fails to complete the degree requirements by the stated deadline, the Dean of Graduate Studies and Research will consult with the graduate director of the program to which the student was admitted. Unless the student is otherwise in good standing and has made good progress as measured against the plan the student provided as one of the requirements for a petition to request an extension, the Dean of Graduate Studies and Research will withdraw the student from the program, and notify the student of the action.

## Leaves of Absence/Withdrawals

Students may request either a medical or non-medical leave of absence for either one semester or one year. A leave of absence may not exceed one year and may not be repeated. Under extraordinary circumstances, a student may petition the Arts & Sciences Committee on Graduate Studies for an exception. If a student does not return to their graduate program after their approved leave, the student will be withdrawn from their graduate program by the Dean of Graduate Studies and Research. However, students may petition the Dean of Graduate Studies and Research for readmission to their graduate program when ready to return. Students should consult with the Director of Graduate Studies for their program in advance of submitting a request to determine the best course of action for them under the circumstances. If a student is receiving financial aid (e.g., a Graduate Assistantship or a Research Assistantship), the student should consult with both their advisor and the Director of Graduate Studies for their program regarding their eligibility for financial aid upon return from an approved leave.

Medical leaves are handled by the Dean of Students Office, which also handles medical withdrawals. Students must submit a petition to the Dean of Students Office for consideration by the Medical Review Committee. Documentation from a health care provider is required to support the request and should be submitted directly to the Dean of Students Office. Readmission after a medical leave of absence or a medical withdrawal also requires clearance from the Medical Review Committee, as well as permission from both the Dean of Graduate Studies and Research and the student's academic program. Note that the medical leave, medical withdrawal, and medical clearance policies and forms for graduate students differ from those for undergraduate students.

Non-medical leaves of absence are handled by the Office of Graduate Studies and Research, which also handles non-medical withdrawals. To request a non-medical leave of absence, a student must submit a *Non-Medical Leave of Absence* form, which must be approved by the student's advisor, the Director of Graduate Studies for their program, and the Dean of Graduate Studies and Research. To request a non-medical withdrawal, a student must submit a *Student Withdrawal* from Program form, which must be

approved by the Director of Graduate Studies for the student's program and the Dean of Graduate Studies and Research.

Students approved for a leave of absence, whether medical or non-medical, will have their time-to-degree completion clock suspended for the duration of the approved leave period (i.e., for either one semester or one year). Upon return from approved leave, the student's time-to-degree completion clock will resume. While on an approved leave of absence, students remain in good academic standing but are not registered for courses or for continuous enrollment status. If you are a Virginia resident, you must submit an *Application to determine Physical Residency and In-State Tuition Eligibility* before you return to classes prior to registration, even if you had previously submitted this application.

## Notice of Candidacy for Graduation

Candidates for graduate degrees in Arts & Sciences must submit a Notice of Candidacy for Graduation form directly to the Office of the University Registrar by no later than the appropriate deadline found in the A&S Academic Calendar. If a student who has filed a Notice of Candidacy for Graduation form determines that they will be unable to complete all their degree requirements by the intended semester of Graduation, they must contact the Office of Graduate Studies and Research to request the new intended semester of graduation.

## Academic Conduct in Scholarly Activity or Research

At William & Mary, honesty and integrity of students and faculty members are paramount in the conduct and dissemination of research and scholarly and creative activity. This responsibility extends to documents prepared as reports, or as proposals for funding, or other support. It is the responsibility of scholars to ensure that the quality of published works is high, that careful citation credits prior work and related contributions, and that the accomplishments of co-authors and other colleagues are given full acknowledgment. Co-authorship must be conferred only to those who have made significant, identifiable contributions. All authors must be willing and able to defend publicly those contributions.

In general, academic misconduct does not include honest error or honest differences in interpretations or judgments" of results of scholarly activity.[1] Deception, misappropriation of intellectual property, and other deeds that seriously deviate from commonly accepted practices for proposing, conducting, or reporting research within a given community of scholars, is grounds for disciplinary action. Although academic misconduct is well-defined for some disciplines or within certain schools or departments, it is generally defined to include fraudulent behavior, especially "fabrication, falsification, and plagiarism".

- Fabrication is the creation, invention and reporting of results in the absence of experiments, computations, or other efforts to support such results.
- Falsification is the unwarranted alteration of results, to include deceptive or selective reporting, purposeful omission of conflicting data, or other such actions intended to deceive.
- Plagiarism and misappropriation involve willfully appropriating the ideas, methods, or written words of another, without acknowledgment and with the intention that they be taken as one's own work. Plagiarism includes the unauthorized use of privileged information, such as information gained confidentially in peer review, or other confidential circumstances. Self-plagiarism includes duplicate publication without proper citation, or the submission of substantially identical or similar written work for credit or payment. This applies to submission of highly similar work for credit in more than one course without prior approval of the current instructor or without agreement of both instructors for concurrent courses.

Research misconduct may also include material failure to comply with legal requirements governing research, including requirements for the protection of researchers, human subjects, or the public, or for ensuring the welfare of laboratory animals.

[1]*United States. Office of Research Integrity. "Guidelines for Institutions and Whistleblowers: Responding to Possible Retaliation Against Whistleblowers in Extramural Research." 1995. 1 June 2008.*

## Institutional and Federal Compliance Requirements for Research/Teaching

Research compliance and safety is overseen by the Vice Provost for Research and Graduate/Professional Studies. Federal Regulations require formal review for certain classes of activity that lead to generalizable knowledge **BEFORE** employees or students begin work. Review is required whether these regulated activities are supported by external or internal funds, whether they are performed as independent or guided inquiries, or as part of normal instruction in a classroom, lab, or practicum, whether they are performed on or off university grounds, and whether they are part of a formal research program or undertaken as the result of academic curiosity on the part of a Professor or Student. Before graduate students can perform the following work for research/teaching, the faculty research advisor must submit a proposal to the appropriate W&M compliance committee(s) and receive written approval.

These classes of work include:

a. work involving living human subjects leading to generalizable knowledge (including survey research or questionnaires);
b. work that involves the use and care of vertebrate animals;
c. work that uses or produces radioactive materials; and
d. work that involves institutional bio-safety concerns such as:
    - Recombinant DNA
    - Work with any human fluid, tissue or infectious agent
    - Research involving direct or indirect contact with wild-caught animals that may harbor infectious agents.

By law, proposed work in any of the four categories above must be reviewed by duly constituted committees appointed by and reporting to senior university administrators. Investigators must submit compliance proposals that include detailed, step-by-step procedures to be used in the research. Further, committee review is required for survey work that may be done year-after-year in scheduled classes or laboratories.

**Annual renewals are not automatic**. Researchers must update protocols annually in order to continue the work. Further, any revision in the authorized protocol during the period covered by the protocol must undergo additional review prior to implementation.

Detailed descriptions of the compliance committees, along with guidance for investigators, can be found on the Universities Compliance website, located within myW&M, under the Self Service tab.

William & Mary policy mandates that those individuals who will perform, or intend to perform, a particular activity involving these regulated areas may not judge for themselves whether that activity is exempt from formal review. Therefore, whenever you have any doubt about whether your work might require review, the correct approaches are either to submit that work through the Protocol and Compliance Management electronic submission program, or to contact a Committee Chair to discuss it.

## Conferral of Degrees

William & Mary confers degrees in August, January, and May of each year. The commencement ceremony is in May. Degree recipients of the previous August and January are recognized at, and invited to attend, the following May ceremony. The Office of Graduate Studies & Research has thirty (30) days from the actual date of degree conferral to submit final paperwork to the University Registrar for degree certification. Diplomas are issued approximately fifteen (15) days after degree certification.

## A&S: Financial Obligations

- Payment of Accounts
- Tuition Payment Plans
- Late Fees and Collection Costs (see Financial Operations, Student Accounts, eStatement section at: https://www.wm.edu/offices/financialoperations/sa/ebill/index.php)
- Withdrawal Schedule for a Full-time Graduate Student
- Return of Title IV
- Example of Return of Funds Calculations
- Eligibility for In-State Status

## A&S: Requirements for Degrees

- Constitution of Defense Examination Committees
- Degrees of Master of Arts and Master of Science
- Degree of Master of Public Policy
- Degree of Doctor of Philosophy
- Submission and Acceptance of the Dissertation or Thesis

### I. Constitution of Defense Examination Committees

For the purposes of constituting an examination committee for a dissertation or thesis defense examination, a full-time faculty member is defined to be someone who holds a tenured or tenure-eligible faculty position in Arts & Sciences.

To be the sole chair of a dissertation or thesis defense examination committee, a faculty member must currently be a full-time faculty member within the graduate program. An exception may be requested from the Dean of Graduate Studies and Research if an approved chair of a dissertation or thesis defense examination committee subsequently departs William & Mary for an equivalent full-time appointment at another research institution and both the departing colleague and any one of their advisees wants to preserve the approved advisor-advisee relationship through to completion:

- If the approved committee chair departs as a tenured member of the Arts & Sciences faculty, then they may continue to serve as the sole chair of a dissertation or thesis defense examination committee, subject to the approval of the director of the student's graduate program.
- If the approved chair departs prior to securing tenure as an Arts & Sciences faculty member, then they may continue to serve as a co-chair of a dissertation or thesis defense examination committee, subject to the approval of the director of the student's graduate program. In this case, the other co-chair must be a full-time faculty member within the graduate program.

In such instances, the graduate program is required to obtain a Courtesy Appointment from the Dean of the Faculty of Arts & Sciences, to be renewed annually, until all graduate students on whose committees the departed faculty member serves as chair or co-chair have either satisfied all degree requirements or been withdrawn from the graduate program.

A faculty member approved as the chair of an Arts & Sciences graduate student's dissertation or thesis defense examination committee who subsequently retires may continue to serve as a co-chair of the defense examination committee, subject to the approval of the director of the student's graduate program. The other co-chair must be a full-time faculty member within the graduate program. If the faculty member does not retire with emeritus status, then the graduate program is required to obtain a Courtesy Appointment from the Dean of the Faculty of Arts & Sciences, to be renewed annually, until all graduate students on whose committees the retired faculty member serves as co-chair have either satisfied all degree requirements or been withdrawn from the graduate program. Upon their retirement, emeritus faculty members retain their affiliation with the graduate program, therefore a Courtesy Appointment is not required.

A graduate program may, at their discretion, recommend someone who holds a doctorate but is not a faculty member in Arts & Sciences as the co-chair of a defense examination committee, subject to the approval of the Dean of Graduate Studies and Research. The other co-chair must be a full-time faculty member within the graduate program. The graduate program is required to obtain either a Courtesy Appointment or a contract as a research faculty member from the Dean of the Faculty of Arts & Sciences, to be renewed annually, until the graduate student has either satisfied all degree requirements or been withdrawn from the graduate program.

When a co-chair who is a current full-time faculty member in the student's graduate program is required under any of the circumstances outlined above, the co-chair will have full signatory authority on all forms. The co-chair arrangement will ensure the availability of an on-site advisor to the student.

## II. Degrees of Master of Arts and Master of Science

In addition to the following general requirements that must be satisfied by students earning either a Master of Arts or a Master of Science degree from Arts & Sciences, special degree requirements (e.g., language proficiency or course requirements) specific to each of the master's programs are listed under the Graduate Arts & Sciences Catalog entries for departments and programs. Students are required to satisfy all program-specific requirements in addition to the following general requirements.

### A. All candidates for the degrees of Master of Arts or Master of Science

To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

All requirements for the master's degree must be completed within six years from the first term of enrollment in the master's program, excluding periods of approved leave and military service. Requests for extension beyond the six-year limit must be filed following the procedures outlined in Time Limits for Degrees and Extensions section.

### B. Students not submitting a thesis to satisfy degree requirements

Students not submitting a thesis must successfully complete 32 semester hours of graduate credit, subject to the following requirements.

- At least 20 semester credit hours must be earned in courses numbered 600 or above.
- Semester credit hours earned for courses numbered 566, 666, 685, 695, 700, 766, 795, and 800 may not be used to satisfy this requirement.

- No more than a total of 12 semester credit hours earned in courses numbered 694 may be used to satisfy this requirement.

**C. Students submitting a thesis to satisfy degree requirements**

Students submitting a thesis must successfully complete 30 semester hours of graduate credit, subject to the following requirements.

- At least 12 semester credit hours must be earned in courses numbered 600 or above, excluding 700 (Thesis).
- At least 6 semster credit hours must be earned in courses numbered 700 (Thesis), but no more than 6 semester credit hours can be used to satisfy the requirement of 30 semester hours of graduate credit.
- Semester credit hours earned for courses numbered 566, 666, 685, 694, 710, 766, and 800 may not be used to satisfy this requirement.
- No more than a total of 12 semester credit hours earned in 693 and 695 may be used to satisfy this requirement.

Some master's programs in Arts & Sciences require a student earning a thesis master's degree to take a comprehensive or qualifying examination to demonstrate competence in his or her field of study. If so, students submitting a thesis must pass the comprehensive or qualifying examination to satisfy this requirement for their degree program.

- The comprehensive or qualifying examination may be either written, oral, or both at the discretion of the student's master's program.
- The comprehensive or qualifying examination committee must consist of at least three members, at least two of whom must be full-time faculty with appointments in the Arts & Sciences and must have a formal affiliation with the student's graduate program. The third member of the comprehensive or qualifying examination committee must hold a doctorate.
- The student must be physically present for the comprehensive or qualifying examination.

Students submitting a thesis must present work that is based on original research that constitutes a contribution to scholarly knowledge.

- The thesis defense examination committee must consist of at least three members who hold a doctorate, at least two of whom must be full-time faculty with appointments in Arts & Sciences and must have a formal affiliation with the student's graduate program.
- The student's master's program recommends the names of members to serve on the master's defense examination committee, which the director of the student's graduate program must approve. Final approval of the committee rests with the Dean of Graduate Studies and Research, and must be secured at least two weeks in advance of the thesis defense examination.
- Each student must successfully defend his or her thesis in a final examination before the thesis may be submitted to the Dean of Graduate Studies and Research.
    - If the student's graduate program requires a public defense of thesis, the examination must be open to the faculty of Arts & Sciences and to such outside persons as the graduate program may invite.
    - The first preference is for all thesis defense examination committee members to be physically present for the examination.
    - Electronic participation by the thesis defense examination committee members is allowed to accommodate schedules, particularly those of committee members who do not hold appointments at William & Mary.

- The student must be physically present for the thesis defense examination.

## III. Degree of Master of Public Policy

**A.** The director of The Public Policy Program will plan and approve the student's program.

**B.** Each MPP student is expected to attend full-time (12 credits per semester) for four semesters. Students in the Accelerated B.A./B.S. and MPP path are expected to attend full-time (12 credits per semester) for two semesters following conferral of the Bachelor's degree.

**C.** At least 49 semester hours of graduate credit are required for the MPP degree. Students accepted for the degrees of MPP/JD, MPP/MBA, MPP/MS in Marine Science, MPP/PhD in Marine Science, or MPP/MS in Computational Operations Research are required to have 37 hours of MPP course credit. Each student must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to the MPP program. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point=2.0).

**D.** It is expected that all degree requirements will be completed within 2 years after admission to the degree program.

**E.** Each student must complete a 10-week internship during the summer between the first and second years of the program. The program director must approve all internships.

## IV. Degree of Doctor of Philosophy

In addition to the following general requirements, which must be satisfied by students earning a Doctor of Philosophy from Arts & Sciences, special degree requirements (e.g., language proficiency or course requirements) specific to each of the doctoral programs are listed under the Graduate Arts & Sciences Catalog entries for departments and programs. Students are required to satisfy all program-specific requirements in addition to the following general requirements.

To be eligible to graduate, all students must achieve a cumulative grade point average of at least 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

All requirements for the Ph.D. must be completed within seven years from the first term of enrollment in the Ph.D. program, excluding periods of approved leave and military service.

- For a student enrolled in a master's program in Arts & Sciences who subsequently advances to candidacy in the doctoral program in the same field, the term of enrollment in the master's program will count toward the seven-year limit for the doctoral degree unless otherwise stated in the letter of admission. Such exceptions are granted only at the time of admission.
- Requests for extension beyond the seven-year limit, or the limit stated in the letter of admission, must be filed following the procedures outlined in Time Limits for Degrees and Extensions in the Graduate Arts & Sciences Catalog.

A minimum of three years of graduate study beyond the baccalaureate is required. At least 30 semester credit hours beyond either the baccalaureate or the master's is required; semester credit hours used to satisfy baccalaureate or master's degree requirements cannot be used to satisfy the requirement of a

minimum of 30 semester credit hours to earn a doctorate. In addition, the following requirements must be met:

- At least 30 semester credit hours must be earned in courses numbered 600 or above.
- At least 24 semester credit hours must be earned in courses numbered 800 (Dissertation); no more than 24 semester credit hours may be used to satisfy the requirement of at least 30 semester credit hours beyond the baccalaureate or master's.
- Semester credit hours earned for courses numbered 566, 666, 685, 700, 710, and 766 may not be used to satisfy program requirements for the doctorate.

Doctoral students must pass a comprehensive or qualifying examination designed to demonstrate competence in his or her field of study.

- The comprehensive or qualifying examination may be either written, oral, or both at the discretion of the student's doctoral program.
- The comprehensive or qualifying examination committee must consist of at least three members, at least two of whom must be full-time faculty with appointments in Arts & Sciences and must have a formal affiliation with the student's graduate program. The third member of the comprehensive or qualifying examination committee must hold a doctorate.
- The student must be physically present for the comprehensive or qualifying examination.

Doctoral students must submit a dissertation that is based on original research that constitutes a significant contribution to scholarly knowledge.

- The dissertation defense examination committee must consist of at least four members who hold a doctorate.
    - At least two members of the committee must be full-time faculty with appointments in Arts & Sciences and must have a formal affiliation with the student's graduate program.
    - At least one member of the committee must be an individual who does not have a formal affiliation with the student's doctoral program, and thus is eligible to serve as an external examination committee member.
    - Individuals who have any affiliation with the student's doctoral program (e.g., Adjunct Professor, Visiting Assistant Professor, etc.) do not qualify as an external examination committee member.
    - External examination committee members must have earned a doctorate in the same or closely related discipline and may include individuals who have earned a doctorate and who hold an appointment at an institution other than William & Mary.

- The student's doctoral program recommends the names of members to serve on the dissertation defense examination committee, which the director of the student's graduate program must approve. Final approval of the committee rests with the Dean of Graduate Studies and Research, and must be secured at least two weeks in advance of the dissertation defense examination.

- Each student must successfully defend his or her dissertation in a final examination before the dissertation may be submitted to the Dean of Graduate Studies and Research.
    - This examination must be open to the faculty of Arts & Sciences and to such outside persons as the doctoral program may invite.
    - The first preference is for all dissertation defense examination committee members to be physically present for the examination.
    - Electronic participation by the dissertation defense examination committee members is allowed to accommodate schedules, particularly those of committee members who do not hold appointments at William & Mary.

- The student must be physically present for the dissertation defense examination.

### V. Submission and Acceptance of the Dissertation or Thesis

Acceptance of the dissertation or thesis by Arts & Sciences is conditioned upon a student submitting their dissertation or thesis, along with all other documents required by the Office of Graduate Studies and Research, subject to the requirements published for the term for which the student has filed to graduate. The submission must meet the deadline published in the Graduate Arts & Sciences Catalog under A&S: Academic Calendar to graduate in the intended term. Students should confirm with their graduate program, in advance of final submission, that they have satisfied all the degree requirements specific to their program.

When an Arts & Sciences graduate degree requires the submission of a dissertation or thesis to fulfill degree requirements, the degree will not be granted until the dissertation or thesis has been submitted to and accepted by the Dean of Graduate Studies and Research.

## A&S: Explanation of Course Descriptions

Graduate courses may be taken by persons other than regular or provisional graduate students in Arts and Sciences only with the consent of the chairperson of the department/program committee concerned.

Pairs of numbers (501,502) indicate continuous courses. A hyphen between numbers (501-502) indicates that the courses must be taken in the succession stated.

Courses involving laboratory or studio activity are so labeled. All others are classroom courses.

Semester hour credit for each course is indicated by numbers in parentheses.

Refer to the Course Descriptions section for a list of graduate courses and descriptions.

## A&S: Facilities

- Graduate Center - https://www.wm.edu/as/graduate/graduate-center/index.php
- Centers and Institutes - https://www.wm.edu/research/centers/index.php
- W&M's Interdisciplinary Research Collaborations
  - Humanities and Social Sciences - https://www.wm.edu/research/centers/humanitiesandsocsci/index.php
  - Business, Education, Health Care and Law - https://www.wm.edu/research/centers/busedhealthlaw/index.php
  - Natural and Computational Sciences - https://www.wm.edu/research/centers/naturalandcompsci/index.php
  - Affiliations - https://www.wm.edu/research/centers/affiliations/index.php

## A&S: Departments and Programs

- American Studies Program
- Anthropology Department
- Applied Science Department
- Biology Department
- Chemistry Department
- Computer Science Department
- Physics Department
- Psychological Sciences Department
- Public Policy Program
- GIS Certificate
- Graduate Center Programs
- Additional Graduate Courses

- History Department

## American Studies Program

### American Studies Faculty

DIRECTOR
**Leisa D. Meyer** W&M Community Studies Professor of American Studies, History, and Gender, Sexuality, and Women's Studies (Ph.D., University of Wisconsin-Madison).

GRADUATE DIRECTOR
**Hannah Rosen** Associate Professor (History and American Studies) (Ph.D., University of Chicago).

PROFESSORS
**Michael L. Blakey** (National Endowment for the Humanities Professor of Anthropology and American Studies) (Ph.D., University of Massachusetts, Amherst), **Susan V. Donaldson** (National Endowment for the Humanities Professor of English and American Studies) (Ph.D., Brown University), **Grey Gundaker** (Duane A. and Virginia S. Dittman Professor of American Studies and Anthropology) (Ph.D., Yale) (on leave Fall 2019), **Francesca Sawaya** (English and American Studies) (Ph.D., Cornell University) (on leave 2019-2020), **Robert J. Scholnick** (English and American Studies) (Ph.D., Brandeis) (on leave 2019-2020), and **Simon A. Stow** (Government and American Studies) (Ph.D., University of California-Berkeley) (on leave 2019-2020).

ASSOCIATE PROFESSORS
**Alan C. Braddock** (Ralph H. Wark Associate Professor of Art History and American Studies) (Ph.D., University of Delaware) (on leave 2019-2020), **Arthur L. Knight (**Diamond Term Associate Professor) (English and American Studies) (Ph.D., University of Chicago), **Michelle Leliévre** (Anthropology and American Studies) (Ph.D., University of Chicago), **Elizabeth Losh** (English, American Studies, and Gender, Sexuality, and Women's Studies) (Ph.D., University of California-Irvine), **Charles F. McGovern** (History and American Studies) (Ph.D., Harvard), and **M. Lynn Weiss** (English and American Studies) (Ph.D., Brandeis) (on leave Spring 2020).

COURTESY PROFESSOR
**Susan V. Webster** (Jane W. Mahoney Professor of Art and Art History and American Studies) (Ph.D., University of Texas, Austin).

COURTESY ASSOCIATE PROFESSOR
**Kara Thompson** (Ph.D., University of California - Davis).

AFFILIATES
**Jamel Donnor** (William & Mary Clairborne Stephens Distingusihed Associate Professor of Education) (Ph.D., University of Wisconsin-Madison), and **Monica Griffin** (Director, Engaged Scholarship and Sharpe Community Scholars Program).

EMERITA PROFESSOR
**Sally H. Price** (Duane A. and Virginia S. Dittman Professor of American Studies and Anthropology) (Ph.D., Johns Hopkins).

EMERITUS PROFESSORS

**Richard S. Price** (Duane A. and Virginia S. Dittman Professor of American Studies, Anthropology, and History) (Ph.D., Harvard), and **Alan Wallach** (Ralph H. Wark Professor of Art and Art History and Professor of American Studies) (Ph.D., Columbia).

## The American Studies Program

William & Mary's Graduate Program in American Studies provides a flexible plan for interdisciplinary study of the United States and the Americas. The Program offers three degree tracks: the Ph.D., the M.A./Ph.D., and the M.A.. The Program also offers a combination track with the School of Law that leads to an M.A./J.D..

Full-time M.A./Ph.D and Ph.D. students admitted into the Program receive funding packages that include tuition and a stipend for five years. Funded graduate students fulfill assistantships that provide practical experiences in American Studies-related fields such as archive and manuscript collections, editing, museum work and college-level teacher training. Ph.D. students can also apply to teach a course of their own design after serving as a teaching assistant and passing their Ph.D. qualifying exams.

Opportunities to earn small stipends are often available to full-time M.A. students.

## Program Description

Our M.A. and Ph.D. programs consist of coursework and independent research. Together with an advisor, graduate students choose a program of study appropriate to their interests. Our areas of strength include: Africana Studies, Art and Visual Culture, Critical Race Studies, Environmental Studies, Gender, Sexuality, and Women's Studies, Material Culture, Native/Indigenous Studies, Popular Culture, Postcolonial Studies, Religious Studies, Southern Studies, and Technology and Media Studies.

Our faculty hold joint appointments in Anthropology, Art and Art History, Education, English, Government, and History. They have expertise in interdisciplinary research methods, including literary analysis, visual cultural analysis, oral and archival history, community collaboration, digital humanities techniques, ethnography, archaeology, and other qualitative and quantitative research methods. Many of our faculty members are committed to research projects that engage local communities.

## Admission Requirements

William & Mary uses an online application system. Applicants submit official copies of scores from the Graduate Record Examination taken within five years prior to the application submission date, official transcripts, three letters of recommendation, a writing sample of approximately 20 pages in length, and a short essay detailing intellectual interests and motives for pursuing a graduate degree in American Studies. If English is not your first language, your Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores are required and must be sent directly to William & Mary by the Educational Testing Service or IELTS. The TOEFL/IELTS requirement can be waived for applicants who will have received a degree from a college or university in which English is the primary language of instruction. A transcript is required as evidence of successful instruction in English as a primary language.

To ensure full consideration for admission and financial assistance, applications, including all supporting materials and test scores, should be completed by December 15. Applications received after December 15 will be reviewed on the basis of available space. There are no spring admissions. Only applicants intending to enter as full-time M.A./Ph.D. or Ph.D. students are considered for financial support.

## Programs

## American Studies, M.A.

### Degree Requirements
Students will take two semesters of course work and will prepare and defend a thesis. Most full-time students will complete the requirements within one year. Students should consult the American Studies Graduate Handbook, available at the Program website, for a fuller account of program requirements.

### Course Requirements
Twenty-four course credit hours are required, including 6 credits of AMST 695. In addition, 6 credits of thesis preparation under AMST 700 are required. The total of 30 required credits will be distributed as follows:

- AMST 661 - Introduction to American Studies (3)
- AMST 590, AMST 690, or AMST 715 - Topics, Seminars, and Directed Research in American Studies (five courses for a total of 15 credits). Graduate level seminars offered by the Department of History or the Department of Anthropology can substitute for one or more of these courses, with permission from the Director of Graduate Studies.
- AMST 695 - Directed Thesis Master's Research (3 credits each semester for a total of 6 credits)
- AMST 700 - Thesis (3 credits each semester for a total of 6 credits)
- At least 12 credit hours (4 courses) must be earned in courses numbered 600 or above, including AMST 695 and excluding AMST 700.

### Thesis Requirement
Students pursuing the M.A. complete a thesis based on original research that makes a contribution to the study of American life. The M.A. thesis consists either of one substantial, long essay (usually between 35 and 65 pages) or a portfolio containing two significant research papers that together equal that same length.

### Exam Requirement
The thesis, supplemented by an oral defense before a faculty committee, will serve as the M.A. field examination in American Studies.

### Language Requirement
There is no language requirement for students seeking the terminal M.A.

### Satisfactory Progress
All full-time M.A. students should finish their coursework in one academic year. All requirements for the master's degree must be completed within six years from the first term of enrollment in the master's program, excluding periods of approved leave and military service. Requests for extension beyond the six-year limit must be filed following the procedures outlined in Time Limts for Degrees and Extensions section.

To be eligible to graduate, students must achieve a cumulative grade point average of 3.3 on a 4.0 scale in courses undertaken for graduate credit at William & Mary after admission to a degree program. A student who receives a grade of C+ (2.3) or lower in a course may repeat that course one time for credit, upon approval of both the instructor of the course and the graduate director for the student's program. When such a repeat attempt is approved, the grades for both attempts will count in the cumulative GPA, but only the most recent attempt will count toward the degree. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

Students whose grade point average falls below 3.3 are put on academic probation the following semester. If at the end of the following probationary semester the grade point average remains below 3.3, funded students will lose their funding, and students - funded or not - may be withdrawn from the Program.

For a student enrolled in a master's program in the College of Arts & Sciences who subsequently advances to candidacy in the doctoral program in the same field, the terms of enrollment in the master's program will count towards the seven-year limit for the doctoral degree unless otherwise stated in the letter of admission to the Ph.D. program.

## American Studies, Ph.D.

Students may matriculate in the doctoral program after completing a terminal M.A. degree. These students will take three semesters of course work while preparing for Ph.D. qualifying examinations. Following completion of these exams, students will complete and defend a dissertation. Each step involves extensive work with a faculty advisor and committee.

Students should consult the American Studies Graduate Handbook, available at the Program website, for a fuller account of program requirements.

### Course Requirements

A total of 36 course credit hours are required, including at least 12 credit hours of AMST 795 . In addition, 24 credit hours of Dissertation preparation under AMST 800 are required. The total of 60 credits will be distributed as follows:

- AMST 661 - Introduction to American Studies (3 credits)
- AMST 590 , AMST 790 , or AMST 715 - Topics, Seminars, and Directed Research in American Studies (7 courses over three semesters for a total of 21 credits). Graduate level seminars offered by the Department of History or the Department of Anthropology can substitute for one or more of these courses, with permission from the Director of Graduate Studies.
- AMST 795 - Directed Ph.D. Research (12 credits)
- AMST 800 - Dissertation (24 credits)

At least 30 semester credit hours must be earned in courses numbered 600 or above, including 795 and excluding 800.

### Language Requirement

Candidates must demonstrate a reading knowledge of a language other than English by the end of the fourth semester of enrollment. See the American Studies Graduate Handbook for further details of the examination process.

### Qualifying Exam Requirement

Between the end of the fourth semester and the end of the fourth week into the fifth semester of enrollment, students will take a qualifying exam that consists of both a written and oral component. Students will be examined in one Major and one or more Minor Fields. The total number of examinations is usually four, each with a different examiner. Customarily the major field consists of two or three examinations, and the minor field(s) one or two.

### Dissertation Requirement

Ph.D. candidates complete a dissertation based upon original research that makes a scholarly contribution to the study of American life.

### Satisfactory Progress

All requirements for the Ph.D. must be completed within seven years from the first term of enrollment in the Ph.D. program, excluding periods of approved leave and military service. For a student enrolled in a terminal master's program in the College of Arts & Sciences who subsequently advances to candidacy in the doctoral program in the same field, the terms of enrollment in the master's program will count towards the seven-year limit for the doctoral degree unless otherwise stated in the letter of admission to the Ph.D. program. Requests for extension beyond the seven-year limit must be filed following the procedures outlined in Time Limits for Degrees and Extensions in the Graduate Arts & Sciences Catalog.

To be eligible to graduate, students must achieve a cumulative grade point average of 3.3 on a 4.0 scale in courses undertaken for graduate credit at William & Mary after admission to a degree program. A student who receives a grade of C+ (2.3) or lower in a course may repeat that course one time for credit, upon approval of both the instructor of the course and the graduate director for the student's program. When such a repeat attempt is approved, the grades for both attempts will count in the cumulative GPA, but only the most recent attempt will count toward the degree. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

The department conducts periodic reviews of all students. Students who fail to make satisfactory progress towards their chosen degree(s) or who fail to maintain the grade point average required by the Program (3.3) are subject to dismissal.

Students whose grade point average falls below 3.3 are put on academic probation the following semester. If at the end of the following probationary semester the grade point average remains below 3.3, funded students will lose their funding, and students - funded or not - may be withdrawn from the Program.

The American Studies Program also enables students to pursue the Ph.D. on a part time basis. Students may take course work part-time. After their courses are complete, part-time students must also meet the same deadlines as full- time students and have seven years to complete their doctorate after matriculation in the Ph.D. program.

## American Studies, Sequential M.A./Ph.D.

### Degree Requirements

Students will take two semesters of course work and complete their M.A. thesis requirement in their first year, and then take three more semesters of course work at the Ph.D. level while preparing for Ph.D. qualifying examinations. Following completion of these exams, students will complete and defend a dissertation. Each step involves extensive work with a faculty advisor and committee.

Students should consult the American Studies Graduate Handbook, available at the Program website, for a fuller account of program requirements.

## Course Requirements

To complete the M.A. portion of the M.A./Ph.D. track, 24 course credit hours are required, including 6 credits of 695. In addition, 6 credits of thesis preparation under AMST 700 are required. To complete the Ph.D. portion of the M.A./Ph.D. track, 36 additional course credit hours are required, including at least 12 credit hours of AMST 795. In addition, 24 credit hours of Dissertation preparation under AMST 800 are required. The total of 90 required credits will be distributed as follows:

M.A. credits:

- AMST 661 - Introduction to American Studies (3 credits)
- AMST 590 , AMST 690 , or AMST 715 - Topics, Seminars, and Directed Research in American Studies (5 courses for 15 credits). Graduate level seminars offered by the Department of History or the Department of Anthropology can substitute for one or more of these courses, with permission from the Director of Graduate Studies.
- AMST 695 - Directed Thesis Master's Research (3 credits each semester of the M.A. year for a total of 6 credits)
- AMST 700 - Thesis (3 credits each semester of the M.A. year for a total of 6 credits)

At least 12 credit hours (4 courses) must be earned in courses numbered 600 or above, including AMST 695 and excluding AMST 700.

Ph.D. credits:

- AMST 590 , AMST 790 , or AMST 715 - Topics, Seminars, and Directed Research in American Studies (8 courses over three semesters for a total of 24 credits). Graduate level seminars offered by the Department of History or the Department of Anthropology can substitute for one or more of these courses, with permission from the Director of Graduate Studies.
- AMST 795 - Directed Ph.D. Research (12 credits)
- AMST 800 - Dissertation (24 credits)

At least 30 semester credit hours must be earned in courses numbered 600 or above, including AMST 795 and excluding AMST 800.

## Thesis Requirement

Students completing the sequential M.A./Ph.D. program complete an M.A. thesis based on original research that makes a contribution to the study of American life. This thesis consists either of one substantial, long essay (usually between 35 and 65 pages) or a portfolio containing two significant research papers that together equal that same length.

## Exam Requirement

The thesis, supplemented by an oral defense before a faculty committee, will serve as the M.A. field examination in American Studies.

## Language Requirement

Candidates must demonstrate a reading knowledge of a language other than English by the end of the fourth semester of enrollment. See the American Studies Graduate Handbook for further details of the examination process.

## Qualifying Exam Requirement

Between the end of the sixth semester and the first four weeks into the seventh semester of enrollment, students will take a qualifying exam that consists of both a written and oral component. Students will be examined in one Major and one or more Minor Fields. The total number of examinations is usually four, each with a different examiner. Customarily the major field consists of two or three examinations, and the minor field(s) one or two.

### Dissertation Requirement

Ph.D. candidates complete a dissertation based upon original research that makes a scholarly contribution to the study of American life.

### Satisfactory Progress

All requirements for the Ph.D. must be completed within seven years from the first term of enrollment in the M.A./Ph.D. program, excluding periods of approved leave and military service. Requests for extension beyond the seven-year limit must be filed following the procedures outlined in Time Limits for Degrees and Extensions in the Graduate Arts & Sciences Catalog.

To be eligible to graduate, students must achieve a cumulative grade point average of 3.3 on a 4.0 scale in courses undertaken for graduate credit at William & Mary after admission to a degree program. A student who receives a grade of C+ (2.3) or lower in a course may repeat that course one time for credit, upon approval of both the instructor of the course and the graduate director for the student's program. When such a repeat attempt is approved, the grades for both attempts will count in the cumulative GPA, but only the most recent attempt will count toward the degree. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

The department conducts periodic reviews of all students. Students who fail to make satisfactory progress towards their chosen degree(s) or who fail to maintain the grade point average required by the Program (3.3) are subject to dismissal.

Students whose grade point average falls below 3.3 are put on academic probation the following semester. If at the end of the following probationary semester the grade point average remains below 3.3, funded students will lose their funding, and students - funded or not - may be withdrawn from the Program.

Part-time M.A./Ph.D. students should complete all requirements for the M.A. within three years from matriculation in order to continue to candidacy in the Ph.D. program.

The American Studies Program also enables students to pursue the Ph.D. on a part time basis. Students may take course work part-time. After their courses are complete, part-time students must also meet the same deadlines as full- time students and have seven years to complete their doctorate after matriculation in the Ph.D. program.

### Description of Courses

Unless otherwise noted, all courses are graded using standard grading [A, B, C, D, F] scheme (See Grading and Academic Progress in the section entitled Graduate Regulations) and may not be repeated for credit (See Repeated Courses requirements in the section entitled Graduate Regulations). See American Studies (AMST prefix) Course Descriptions.

## Anthropology Department

### Anthropology Faculty

Chair
**Martin D. Gallivan** Professor (Ph.D., Virginia).

Graduate Director
**Neil L. Norman** Associate Professor (Ph.D., Virginia).

Professors
**Michael L. Blakey** (NEH Professor) (Ph.D., University of Massachusetts-Amherst), **Kathleen J. Bragdon** (Ph.D., Brown), **Grey Gundaker** (Duane A. and Virginia S. Dittman Professor of American Studies and Anthropology) (Ph.D., Yale) (on leave Fall 2019), **Tomoko Hamada** Ph.D., University of California-Berkeley), **Audrey Horning** (Forrest D. Murden Professsor in the Humanities) (Ph.D., University of Pennsylvania), and **Brad Weiss** (Ph.D., University of Chicago).

Associate Professors
**William H. Fisher** (Ph.D., Cornell), **Jonathan Glasser** (Ph.D., Michigan) (on leave 2019-2020), **Jennifer Kahn** (Ph.D., University of California-Berkeley), and **Michelle Leliévre** (Anthropology and American Studies)(Ph.D., University of Chicago).

Assistant Professors
**Adela Amaral** (Ph.D., University of Chicago), **Joseph Jones** (Ph.D., University of Massachusetts-Amherst), and **Andrea Wright** (Ph.D., Michigan).

Lecturer
**Danielle Moretti-Langholtz** (Director of Native Studies) (Ph.D., Oklahoma).

**Research Associate Professors**
**Joanne Bowen** (Ph.D., Brown), and **Marley R. Brown** (Ph.D., Brown).

Visiting Assistant Professor
**Negar Razavi** (Ph.D., University of Pennsylvania).

Emerita Professors
**Virginia Kerns** (Ph.D., University of Illinois), **Barbara J. King** (Ph.D., Oklahoma), **Sally H. Price** (Duane A. and Virginia S. Dittman Professor of American Studies and Anthropology) (Ph.D., Johns Hopkins), and **Mary M. Voigt** (Ph.D., University of Pennsylvania).

Emeritus Professor
**Richard Price** (Duane A. and Virginia S. Dittman Professor of American Studies and Anthropology)(Ph.D., Harvard).

## The Anthropology Program

The Department of Anthropology at William & Mary offers a Master's and a Ph.D. program. The M.A. in Historical Archaeology is a terminal degree designed to prepare students for careers in historical archaeology and related professions. The Ph.D. program, with specializations in Historical Archaeology and Historical Anthropology, is designed to prepare students for research and teaching positions in Anthropology.

## Admission

Students have the option of enrolling directly into the M.A.-only program, into the sequential M.A./Ph.D. program, or into the Ph.D. program. Applicants to the Ph.D. program must have completed the Anthropology M.A. degree, either at William & Mary or at another institution. Students who have

completed an M.A. in a discipline closely related to Anthropology may petition the Graduate Committee to determine whether their degree may be accepted in lieu of an M.A. in Anthropology.

Admission is competitive, based on such criteria as grade point average, GRE scores, letters of recommendation, experience, and educational history. Minimally, each applicant must have a Bachelor's degree in anthropology, history, or a related discipline, and a 3.0 grade average (on a 4.0 scale). Graduate studies begin in the fall; there are no spring admissions.

William & Mary uses an online application system. Application materials consist of GRE scores taken within the past five years, transcripts, three letters of recommendation, and a writing sample. If English is not your first language, your Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores are required and must be sent directly to William & Mary by the Educational Testing Service or IELTS. The TOEFL/IELTS requirement can be waived for applicants who will have received a degree from a college or university in which English is the primary language of instruction. A transcript required as evidence of successful instruction in English as a primary language. For full consideration, applications and all supporting materials for both the M.A. and the M.A./Ph.D. programs must be received by January 15. Applications submitted after the program deadline may be evaluated if space is available. The Ph.D. programs in Anthropology at William & Mary require full-time study. Full-time and part-time students will be considered for admission into the M.A.-only program.

## Programs

- Anthropology, Historical Archaeology or Historical Anthropology Specialization, PhD
- Anthropology, Historical Archaeology or Historical Anthropology Specialization, Sequential M.A./Ph.D.
- Anthropology, Historical Archaeology Specialization, MA

## Anthropology, Historical Archaeology or Historical Anthropology Specialization, PhD

The doctoral program in Anthropology is designed for students who have completed an M.A. in Anthropology and wish to pursue original, advanced research toward a doctorate specializing in Historical Archaeology or Historical Anthropology.

### Course Requirements

ANTH 600 - Socio-Cultural Theory (3)
ANTH 603 - Archaeological Theory (3)
ANTH 640 - Presentation and Paper (3)
ANTH 800 - Ph.D. Dissertation (24 total credits)
Electives

Course electives shall include one graduate-level course in Linguistic Anthropology and one graduate-level course in Biological anthropology. Students will use the remaining electives to focus their studies in either Historical Archaeology or Historical Anthropology. Selection of electives should be made in consultation with the advisor to ensure an appropriate course of study.

With permission from the department's Director of Graduate Studies and the Dean of Graduate Studies, students are encouraged to take graduate courses in History, American Studies, and other disciplines.

### Presentation & Paper Requirement

By May 1 of their first year all students in the Ph.D. program are required to submit to the Director of Graduate Studies a one-page prospectus in anticipation of their fourth-semester "Presentation and Paper," along with a list of at least three Presentation and Paper committee members from the Anthropology Department. All students in the Ph.D. program will complete the Presentation and Paper process during their fourth semester. Fourth-semester students will enroll in the Presentation and Paper class (ANTH 640 ), write an article-length paper in conjunction with the class that engages questions of anthropological significance, and present the paper to the department by the end of the academic year.

Once the course is complete, the department's Graduate Committee will evaluate the work and determine whether to admit the student to candidacy in the Ph.D. program or require withdrawal of the student.

### Qualifying Exam Requirement

No later than March of their third year of study all students must take an oral qualifying exam conducted by the student's primary dissertation committee. This exam will explore key theoretical concerns and methodological issues related to the dissertation as well as ethnographic, historical and archaeological data that form a background to their research.

### Dissertation Requirement

Each candidate for the Ph.D. must submit an acceptable dissertation based on original research and constituting a contribution to scholarly knowledge.

### Dissertation Grant Proposal Requirement

During the summer between their second and third years in the doctoral program, all students will write a draft grant proposal designed to support the student's dissertation research, targeting one of the principal granting agencies in anthropology (e.g., Wenner-Gren, National Science Foundation, or Fulbright-Hays). Students will consult with their advisor to determine the target granting agency and thus the style that the proposal will take. Draft grant proposals should engage with a research question of broad anthropological significance in a particular setting and demonstrate fluency in the related literature. Draft grant proposals should be submitted to the Director of Graduate Studies by September 1 of the student's third year.

By the end of the eighth semester of graduate study each student, in cooperation with their advisor and committee, will finalize and present the dissertation grant proposal. The proposal will be defended at a meeting open to all faculty members and students in the Anthropology Department and any guests they might invite. The defense is evaluated by the student's dissertation committee.

### Language Requirement

Before the beginning of their fourth year in the program, each student must pass a reading examination in a language relevant to their research interests and useful in reading the literature in their field of study.

### Residence Requirement

Ph.D. students will spend at least four years of full-time graduate study in residence at William & Mary.

### Satisfactory Progress

To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0). Any student receiving two grades of "C" or below in any semester will be withdrawn from the program at the end of that semester.

All requirements for the Ph.D. must be completed within seven (7) years from the first term of enrollment in the Ph.D. program, excluding periods of approved leave and military service.

## Anthropology, Historical Archaeology or Historical Anthropology Specialization, Sequential M.A./Ph.D.

The sequential M.A./Ph.D. program in Anthropology is designed for students who have not yet completed a M.A. in Anthropology and wish to pursue original, advanced research toward a doctorate specializing in Historical Archaeology or Historical Anthropology.

### Course Requirements

To complete the M.A. Degree, students will normally complete 30 credits of coursework including:
ANTH 600 - Socio-Cultural Theory (3)
ANTH 603 - Archaeological Theory (3)
ANTH 640 - Presentation and Paper (3)
ANTH 690 - Directed Research (6 total credits)
ANTH 700 - Thesis (6 total credits)
Electives

Course electives shall include one graduate-level course in Linguistic Anthropology and one graduate-level course in Biological Anthropology. Selection of electives should be made in consultation with the advisor to ensure an appropriate course of study.

ANTH 640 - Presentation and Paper will be taken during the student's fourth semester. Once the course is complete, the department's Graduate Committee will evaluate the work and determine whether to admit the student to candidacy in the Ph.D. program, award a terminal M.A., or require withdrawal of the student.

Once admitted to candidacy in the Ph.D. program, students will complete an additional 36 credits of coursework, including:

ANTH 800 - Dissertation (6 total credits)

Students will use electives to focus their studies in either Historical Archaeology or Historical Anthropology. Selection of electives should be made in consultation with the advisor to ensure an appropriate course of study.

With permission, students are encouraged to take graduate courses in History, American Studies, and other disciplines.

### Presentation & Paper Requirement

By May 1 of their first year students are required to submit to the Director of Graduate Studies a one-page prospectus in anticipation of their fourth-semester "Presentation and Paper" along with a list of at least three Presentation and Paper committee members from the Anthropology Department.

All students in the Ph.D. program will complete the Presentation and Paper process during their fourth semester. Fourth-semester students will enroll in the Presentation and Paper class (ANTH 640), write an article-length paper in conjunction with the class that engages questions of anthropological significance, and present the paper to the department by the end of the academic year.

Once the Presentation and Paper process is complete, the Graduate Committee will evaluate the Presentation and Paper and determine whether to admit the student to candidacy in the Ph.D. program, award a terminal M.A., or require withdrawal of the student.

### Thesis Requirement
Submittal of the paper presented as part of ANTH 640 - Presentation and Paper to the Office of Graduate Studies and Research fulfills the M.A. thesis requirement. Thesis and paperwork must be submitted in time for August conferral.

### Qualifying Exam Requirement
No later than March of their third year of study all students must take an oral qualifying exam conducted by the student's primary dissertation committee. This exam will explore key theoretical concerns and methodological issues related to the dissertation as well as ethnographic, historical, and archaeological data that form a background to their research.

### Dissertation Requirement
Each candidate for the Ph.D. must submit an acceptable dissertation based on original research and constituting a contribution to scholarly knowledge.

### Dissertation Grant Proposal Requirement
During the summer between their second and third years in the doctoral program, all students will write a draft grant proposal designed to support the student's dissertation research, targeting one of the principal granting agencies in Anthropology (e.g., Wenner-Gren, National Science Foundation, or Fulbright-Hays). Students will consult with their advisor to determine the target granting agency and thus the style that the proposal will take. Draft grant proposals should engage with a research question of broad anthropological significance in a particular setting and demonstrate fluency in the related literature. Draft grant proposals should be submitted to the Director of Graduate Studies by September 1 of the student's third year.

By the end of the eighth semester of graduate study each student, in cooperation with their advisor and committee, will finalize and present the dissertation grant proposal. The proposal will be defended at a meeting open to all faculty members and students in the Anthropology Department and any guests they might invite. The defense is evaluated by the student's dissertation committee.

### Language Requirement
Before the beginning of their fourth year in the program, each student must pass a reading examination in a language relevant to their research interests and useful in reading the literature in their field of study.

### Residence Requirement
Students in the M.A./Ph.D. program will spend at least four years of full-time graduate study in residence at William and Mary.

### Satisfactory Progress
To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0). Any student receiving two grades of "C" or below in any semester will be withdrawn from the program at the end of that semester.

All requirements for the Ph.D. must be completed within seven years from the first term of enrollment in the Ph.D. program, excluding periods of approved leave and military service. For a student enrolled in a master's program in the College of Arts & Sciences who subsequently advances to candidacy in the doctoral program in the same field, the terms of enrollment in the master's program will count towards the seven-year limit for the doctoral degree unless otherwise stated in the letter of admission.

## Anthropology, Historical Archaeology Specialization, MA

The Master of Arts program is designed to train students for proficiency in the general field of Anthropology with a specialization in Historical Archaeology. This is a terminal degree. Students in the M.A.-only program in Historical Archaeology may not apply for William & Mary's Anthropology Department's Ph.D. program until after the thesis has been successfully defended and final copies deposited in the Office of Graduate Studies and Research.

### Course Requirements

Each student in the M.A.-only program must successfully complete 30 semester hours of graduate coursework, including:

ANTH 600 - Socio-Cultural Theory (3)
ANTH 603 - Archaeological Theory (3)
ANTH 700 - Thesis (a total of 6 credit hours). All students will register each semester for ANTH 700 (Thesis) in addition to the normal course load of 12 semester hours.
Electives

Students who have not had adequate archaeological field experience will be required to enroll in ANTH 625 - Field Work in Archaeology (6 credits, summer program), but credit earned for this course cannot be counted toward a graduate degree at William and Mary.

Upon approval of the department's Director of Graduate Studies, students may schedule up to six graduate credits in courses in other departments or programs not cross-listed under Anthropology.

### Thesis Requirement

Each M.A. student will write a thesis on a research topic approved by the Director of Graduate Studies and the student's thesis committee. The thesis should be article length and of publishable quality. It should contain a clearly stated problem, relevant data, and theoretically informed analysis.

### Exam Requirement

The thesis, supplemented by an oral defense before a faculty committee, meets the exam requirement.

### Language Requirement

There is no language requirement for the M.A. degree.

### Residence Requirement

Full-time students are expected to remain in residence while they complete the entire 24 semester hours of classes and 6 hours of ANTH 700 - Thesis. Typically, this is done by the end of the second semester of residence, though some students elect to extend the coursework over three semesters.

### Satisfactory Progress

To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0). Any student receiving two grades of "C" or below in any semester will be withdrawn from the program at the end of that semester.

All requirements for the master's degree must be completed within six (6) years from the first term of enrollment in the master's program, excluding periods of approved leave and military service. Requests for extension beyond the six (6) year limit must be filed following the procedures outlined in Time Limits for Degrees and Extensions section.

### Description of Courses

Unless otherwise noted, all courses are graded using standard grading [A, B, C, D, F] scheme (See Grading and Academic Progress in the section entitled Graduate Regulations) and may not be repeated for credit (See Repeated Courses requirements in the section entitled Graduate Regulations). For a list of Anthropology (ANTH prefix) courses, see Course Descriptions.

## Applied Science Department

### Applied Science Faculty

CHAIR
**Eric Bradley** Professor (Ph.D., University of California - Santa Barbara).

GRADUATE DIRECTOR
**Myriam Cotten** Associate Professor (Ph.D., Florida State University).

PROFESSORS
**Christopher A. Del Negro** (Ph.D., University of California - Los Angeles), **Mark K. Hinders** (Ph.D., Boston University) (on leave 2019-2020), **Michael J. Kelley** (Ph.D., Rensselaer Polytechnic Institute), **Gunter Luepke** (Ph.D., University of Gottingen), **Dennis M. Manos** (CSX Professor of Applied Science) (Ph.D., Ohio State University), and **Gregory D. Conradi Smith** (Ph.D., University of California - Davis).

ASSOCIATE PROFESSOR
**Hannes C. Schniepp** (Dr. sc. nat., Swiss Federal Institute of Technology - ETH).

ASSISTANT PROFESSOR
**Daniel S.M. Runfola** (Ph.D., Clark University).

COURTESY PROFESSORS
**Joshua Burk** (Psychological Sciences) (Ph.D., University of New Hampshire), **Rex K. Kincaid** (Mathematics) (Ph.D., Purdue University) (on leave Fall 2019), **Lawrence M. Leemis** (Mathematics) (Ph.D., Purdue University) (on leave Spring 2020), **Alfredo M. Pereira** (Economics) (Ph.D., Stanford University), **Margaret S. Saha** (Biology) (Ph.D., University of Virginia) (on leave 2019-2020), **Leah B. Shaw** (Mathematics) (Ph.D., Cornell University), and **Junping Shi** (Mathematics) (Ph.D., Brigham Young University).

ADJUNCT ASSISTANT PROFESSOR
**Walter A. Silva** (Ph.D., William & Mary).

RESEARCH SCHOLAR
**Joel S. Levine** (Ph.D., University of Michigan).

RESEARCH SCIENTIST
**Maria Cristina Picardo** (Ph.D., William & Mary).

MAKERSPACE DIRECTOR
**Jonathan Frey** (M.S.E.E., University of Delaware).

EMERITUS PROFESSOR
**Robert L. Vold** (Ph.D., University of Illinois - Urbana).

## The Applied Science Program

### General Description

The Department of Applied Science is an interdisciplinary graduate department that focuses on the Ph.D., which also offers an M.S. degree in some cases. Both degrees can be customized and focused into a number of concentrations in the physical and natural sciences. The program is offered by the core faculty of Applied Science in cooperation with affiliated faculty from the Departments of Biology, Mathematics, and Psychological Sciences, as well as from the NASA Langley Research Center (LaRC) and the Thomas Jefferson National Accelerator Facility (JLab).

## Admission

William & Mary uses an online application system. Application materials consist of GRE scores taken within the past five years, transcripts, and three letters of recommendation. Minimally, each applicant must have a Bachelor's degree with a major in a physical or natural science, mathematics, or an engineering discipline. If English is not your first language, your Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores are required and must be sent directly to William & Mary by the Educational Testing Service or IELTS and you are strongly encouraged to make a Skype appointment with department admissions staff. For full consideration, review of applications begins 5:00 p.m. the first Friday of February for entrance in the Fall semester. Spring semester applications must be completed by 5:00 p.m. the second Friday in October. Applications submitted after the program's deadline may be evaluated if space is available.

## Concentrations

In coordination with their advisor, Applied Science graduate students may choose one of the following research fields to be listed on the final transcript as their concentration area.

Accelerator Science
Applied Mathematics
Applied Mechanics
Applied Robotics
Atmospheric and Environmental Science
Biomolecular Engineering
Biophysical Chemistry
Computational Geography
Computational Neuroscience
Interface, Thin Film, and Surface Science
Lasers and Optics

Magnetic Resonance
Materials Science & Engineering
Mathematical and Computational Biology
Medical Imaging
Nanotechnology
Neuroscience
Non-Destructive Evaluation
Polymer Chemistry
Remote Sensing
Stochastic Environmental Dynamics
Structural Biology

## Programs

- Applied Science, M.S.
- Applied Science, Ph.D.

## Applied Science, M.S.

The student must successfully complete the program of courses approved by the Applied Science faculty. The requirements for this degree may be met either by:

- 30 hours of graduate credit, to include 6 credit hours of APSC 700 - Thesis, and an original thesis approved by the student's advisory committee and defended in an oral examination; or
- 32 hours of graduate credit to include APSC 710 - Research Project.

### Course Requirements

The student and his or her advisory committee will plan a coherent degree program, including required coursework that best suits the student's educational goals and previous training. For most students this coursework will include the department's core sequence APSC 603 - Introduction to Scientific Research I, APSC 604 - Introduction to Scientific Research II, and APSC 607 - Mathematical and Computational Methods I, as well as one of these: APSC 608 - Mathematical and Computational Methods II, APSC 651 - Cellular Biophysics and Modeling, MATH 541 - Nonlinear Dynamics, or MSCI 648 - Introduction to Mathematical Biology. Due to the different backgrounds, previous preparation, and career goals, not all Applied Science students will take the full core sequence, and a substitution for any of these courses can be approved by the Academic Progress committee in Applied Science. However, unless otherwise exempted by the department, students will be responsible for the material covered in the entire core.

Students who choose not to do a thesis must complete APSC 710 - Research Project.

### Thesis Requirement

A thesis is optional. Students on the thesis track must complete an original thesis approved by the student's advisory committee and defended in an oral examination.

### Exam Requirement

There is no qualifying or comprehensive exam requirement.

### Language Requirement

All graduate students who were required to take the TOEFL exam for admission will also be required to take courses on written or spoken English. A student and his/her adviser can jointly petition the Academic Progress Committee to waive this requirement.

There is no foreign language requirement for native English-speakers.

### Satisfactory Progress

To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. A student in the Department must maintain a B average in order to remain in good standing. A student who receives a grade of C+ (2.3) or lower in a course may repeat that course one time for credit, upon approval of both the instructor of the course and the graduate director for the student's program. When such a repeat attempt is approved, the grades for both attempts will count in the cumulative GPA, but only the most recent attempt will count toward the degree. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

## Applied Science, Ph.D.

### Course Requirements

The student and his or her advisory committee will plan a coherent degree program, including required coursework that best suits the student's educational goals and previous training. For most students this coursework will include the department's core sequence APSC 603 - Introduction to Scientific Research I, APSC 604 - Introduction to Scientific Research II, and APSC 607 - Mathematical and Computational Methods I, as well as one of these: APSC 608 - Mathematical and Computational Methods II, APSC 651 - Cellular Biophysics and Modeling, MATH 541 - Nonlinear Dynamics or MSCI 648 - Introduction to Mathematical Biology. Due to the different backgrounds, previous preparation, and career goals, not all Applied Science students will take the full core sequence, and a substitution for any of these courses can be approved by the Academic Progress committee in Applied Science. However, unless otherwise exempted by the department, students will be responsible for the material covered in the entire core.

### Dissertation Requirement

The candidate must carry out a substantial original research project. The dissertation describing this research must be approved by the student's advisory committee and successfully defended in a public oral examination.

### Qualifying Exam Requirement

The candidate must successfully pass a comprehensive qualifying examination designed to demonstrate competence in his or her field of study.

### Exam Requirement

Oral defense of the dissertation satisfies the exam requirement.

### Language Requirement

All graduate students who were required to take the TOEFL exam for admission will also be required to take courses on written or spoken English. A student and his/her adviser can jointly petition the Academic Progress Committee to waive this requirement.

There is no foreign language requirement for native English-speakers.

### Satisfactory Progress

To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. A student in the Department must maintain a B average in order to remain in good standing. A student who receives a grade of C+ (2.3) or lower in a course may repeat that course one time for credit, upon approval of both the instructor of the course and the graduate director for the student's program. When such a repeat attempt is approved, the grades for both attempts will count in the cumulative GPA, but only the most recent attempt will count toward the degree. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

All requirements for the Ph.D. must be completed within seven years from the first term of enrollment in the Ph.D. program, excluding periods of approved leave and military service. For a student enrolled in a master's program in the College of Arts & Sciences who subsequently advances to candidacy in the doctoral program in the same field, the terms of enrollment in the master's program will count towards the seven-year limit for the doctoral degree unless otherwise stated in the letter of admission.

### Description of Courses

Many of the courses for Applied Science are described in Chemistry, Computer Science, Mathematics, and Physics sections of this catalog. Wherever a William & Mary course is specified as a prerequisite or corequisite, it is understood that an equivalent course, taken at another institution, may be substituted. Typically, Readings in Applied Science differs from Topics in Applied Science in that a topic implies regular meetings in a course/lecture format.

Unless otherwise noted, all courses are graded using standard grading [A, B, C, D, F] scheme (See Grading and Academic Progress in the section entitled Graduate Regulations) and may not be repeated for credit (See Repeated Courses requirements in the section entitled Graduate Regulations). For a list of Applied Science (APSC prefix) courses, see Course Descriptions.

## Biology Department

### Biology Faculty

CHAIR
**John P. Swaddle** Professor (Ph.D., University of Bristol).

GRADUATE DIRECTORS
**Diane C. Shakes** Professor (Ph.D., Johns Hopkins University), and **Patty Zwollo** Professor (Ph.D., University of Utrecht).

PROFESSORS
**Lizabeth A. Allison** (Ph.D., University of Washington), **Eric Bradley** (Ph.D., University of California - Santa Barbara), **Randolph M. Chambers** (Ph.D., University of Virginia) (on leave 2019-2020), **Daniel A. Cristol** (Ph.D., University of Indiana - Bloomington), **Mark H. Forsyth** (Ph.D., University of Connecticut), **Paul D. Heideman** (Ph.D., University of Michigan), **Margaret S. Saha** (Ph.D., University of Virginia) (on leave 2019-2020), and **S. Laurie Sanderson** (Ph.D., Harvard University).

ASSOCIATE PROFESSORS
**Jonathan D. Allen** (Ph.D., University of North Carolina - Chapel Hill), **Martha A. Case** (Ph.D., Michigan State University), **Harmony J. Dalgleish** (Ph.D., Kansas State University), **Shantá D. Hinton** (Ph.D., Howard University), **Oliver Kerscher** (Ph.D., Johns Hopkins University) (on leave 2019-

2020), **Michael Drew LaMar** (Ph.D., University of Texas - Austin), **Matthias Leu** (Ph.D., University of Washington), **Matthew Wawersik** (Ph.D., Johns Hopkins University), and **Kurt E. Williamson** (Ph.D., University of Delaware).

ASSISTANT PROFESSORS
**Jennifer Bestman** (Ph.D., Cornell University), **Helen A. Murphy** (Ph.D., University of Pennsylvania), **Joshua R. Puzey** (Ph.D., Harvard University), and **William Soto** (Ph.D., New Mexico State University).

RESEARCH PROFESSOR
**Bryan D. Watts** (Ph.D., University of Georgia).

**INSTRUCTORS**
**Jennifer Rahn** (Ph.D., University of Miami), and **Bill D. Saunders** (M.A., William & Mary).

LECTURERS
**Orissa Moulton** (Ph.D., University of Chicago), and **Patricia Habersham** (Ph.D., Carnegie Mellon University).

EMERITUS PROFESSORS
**Robert E.L. Black** (Ph.D., University of Washington), **Garnett R. Brooks, Jr.** (Ph.D., University of Florida), **Mitchell A. Byrd** (Ph.D., Virginia Polytechnic Institute and State University), **Norman J. Fashing** (Ph.D., University of Kansas), **George W. Gilchrist** (Ph.D., University of Washington), **Bruce S. Grant** (Ph.D., North Carolina State University), **Gustav Hall** (Ph.D., University of Indiana), **Stanton F. Hoegerman** (Ph.D., North Carolina State University), **Martin C. Mathes** (Ph.D., University of Maryland), **Joseph L. Scott** (Ph.D., University of California - Irvine), **C. Richard Terman** (Ph.D., Michigan State), **Stewart A. Ware** (Ph.D., Vanderbilt University), and **Lawrence L. Wiseman** (Ph.D., Princeton University).

EMERITUS RESEARCH ASSOCIATE PROFESSOR
**Donna M.E. Ware** (Ph.D., Vanderbilt University).

## The Biology Program

### General Description

The Department of Biology at William & Mary offers a two-year, research-intensive master's program where students are supported by teaching assistantships and full tuition waivers. Graduate research opportunities exist in four broad areas: behavioral biology, developmental biology, ecology and evolutionary biology, and molecular and cell biology. With a low student to faculty ratio (approximately 8-10 new students each year with 25 full-time faculty), we offer an intimate and highly personalized research and education experience rarely attainable at larger universities. Also, our graduate students often work closely with and mentor undergraduates, providing numerous informal teaching and personal development opportunities. Specific information about our graduate students and faculty can be found here.

## Admission

The department requires the General Graduate Record Examination and requests the Biology GRE for nontraditional applicants (e.g. students with a bachelor's degree in something other than Biology).

## Programs

- Biology, M.S.

- Biology, M.A.

## Biology, M.S.

In addition to Biology graduate requirements stated here, students must also satisfy all other Arts & Sciences Graduate Requirements in order to earn the M.S. degree.

Each student must have a thesis committee consisting of a major advisor and at least two other faculty members from the department. This committee will be responsible for supervising the student's research, advising the student regarding coursework and other aspects of the program, and administering a final oral exam at the time of the thesis defense.

### Course Requirements
M.S. students must complete 30 credit hours of courses numbered in the 500s or 600s.

### Required Courses
BIOL 601 - Introduction to Graduate Studies (3 credits, completed in the first year)
BIOL 682 - Research Seminar (at least 1 credit, with no more than 3 credits toward the 30 credit hours)
BIOL 695 - Graduate Research (at least 9 credits, with no more than 9 credits toward the 30 credit hours)
BIOL 700 - Thesis (6 credits, generally taken in the fourth semester)

With the approval of the thesis committee, an M.S. student may take courses in other departments or schools at William & Mary, but the credit hours may not total more than 6 of the 15 elective course credits required.

In addition, students must have at least one semester of organic chemistry and complete a balanced program of study consistent with the requirements we have established for W&M undergraduate biology majors. Most of our students fulfill this requirement as part of their undergraduate degree, but a graduate student may be required to take one or more undergraduate courses to fill in any gaps. Credits taken to fulfill this requirement cannot be applied toward credit hours of graduate courses required for the master's degree.

### Thesis Requirement
M.S. students must successfully complete and defend a thesis. Successful completion of a thesis will normally involve a two-year effort resulting in the production of a piece of original research that is of publishable quality and acceptable to the thesis committee. Each student must present this work in a seminar open to all members of the department; the seminar is followed by an oral examination administered by the committee.

### Comprehensive Exam Requirement
Each student must pass a Graduate Student Comprehensive Examination covering basic and advanced principles of biology. The exam is given in the student's second semester and must be passed or passed conditionally no later than May 30 of the first year of residency. Details of the examination and other procedures are provided in the Biology Department Graduate Handbook.

### Foreign Language Requirement
There is no foreign language requirement.

### Residence Requirement
A minimum residency period of one year is required.

### Satisfactory Progress

Each student must achieve a cumulative grade point average of 3.0 or better on a 4.0 scale in all courses undertaken for graduate credit at William and Mary after admission to the graduate program. A student who receives a grade of C+ (2.3) or lower in a course may repeat that course one time for credit, upon approval of both the instructor of the course and the graduate director for the student's program. When such a repeat attempt is approved, the grades for both attempts will count in the cumulative GPA, but only the most recent attempt will count toward the degree. No credit toward a degree will be allowed for a course in which a student receives a grade below a C (grade point=2.0).

Regular students who drop below a 3.0 average will be given a one-semester probationary period to bring up their average. Failure to attain a 3.0 cumulative average, with a course load of at least 6 credits, by the end of the following semester will result in dismissal from the program.

To ensure timely completion of the M.S. degree, students matriculating in the fall must have their research advisor selected by Nov. 1 and a thesis committee selection form submitted to the Biology Office by November 15. The first committee meeting must be held no later than the first week of the spring semester. A comprehensive exam must be passed or passed conditionally no later than May 30 within the first year of residency. It is recommended that the comprehensive exam be scheduled before April 1. Petitions to deviate from the above schedule must be approved by the Graduate Program Director and research advisor or the student risks being withdrawn from the program.

For students matriculating in a spring semester, a schedule for research advisor and thesis committee selection, committee meetings, and comprehensive exam dates must be developed by the student in consultation with her or his likely research advisor and approved by the Graduate Program Director.

For additional information regarding requirements, consult the Department of Biology Graduate Handbook.

## Biology, M.A.

In addition to Biology graduate requirements stated here, students must also satisfy all other Arts & Sciences Graduate Requirements in order to earn the M.A. degree.

### Course Requirements

M.A. students must complete 32 semester hours of courses at least 20 of which must be numbered in the 600s.

Required Courses

- BIOL 601 - Introduction to Graduate Studies (3 credits, taken in the first year)
- BIOL 682 - Research Seminar (at least 1 credit, but up to 3)

M.A. students may take up to 3 credits of research, as BIOL 690 - Problems in Biology, toward their M.A. degree.

M.A. students may seek permission from the Graduate Committee to take a limited number of courses in other departments for up to a maximum of 12 semester hours.

In addition, students must have at least one semester of organic chemistry and complete a balanced program of study consistent with the requirements we have established for W&M undergraduate biology

majors. Most of our students fulfill this requirement as part of their undergraduate degree, but a graduate student may be required to take one or more undergraduate courses to fill in any gaps. Credits taken to fulfill this requirement cannot be applied toward credit hours of graduate courses required for the master's degree.

### Thesis Requirement
There is no thesis requirement for the M.A. in Biology.

### Comprehensive Exam Requirement
Each student must pass a Graduate Student Comprehensive Examination covering basic and advanced principles of biology. The exam is given in the student's second semester, and must be passed or passed conditionally before the beginning of the third semester. Details of the examination and other procedures are provided in the Biology Department Graduate Handbook.

### Foreign Language Requirement
There is no foreign language requirement.

### Residence Requirement
A minimum residency period of one year is required.

### Satisfactory Progress
Each student must achieve a cumulative grade point average of 3.0 or better on a 4.0 scale in all courses undertaken for graduate credit at William and Mary after admission to the graduate program. A student who receives a grade of C+ (2.3) or lower in a course may repeat that course one time for credit, upon approval of both the instructor of the course and the graduate director for the student's program.When such a repeat attempt is approved, the grades for both attempts will count in the cumulative GPA, but only the most recent attempt will count toward the degree. No credit toward a degree will be allowed for a course in which a student receives a grade below a C (grade point=2.0).

Regular students who drop below a 3.0 average will be given a one-semester probationary period to bring up their average. Failure to attain a 3.0 cumulative average, with a course load of at least 6 credits, by the end of the following semester will result in dismissal from the program.

For additional information regarding requirements, consult the Department of Biology Graduate Handbook.

### Description of Courses
Unless otherwise noted, all courses are graded using standard grading [A, B, C, D, F] scheme (See Grading and Academic Progress in the section entitled Graduate Regulations) and may not be repeated for credit (See Repeated Courses requirements in the section entitled Graduate Regulations). For a list of Biology (BIOL prefix) courses, see Course Descriptions.

## Chemistry Department

### Chemistry Faculty

CHAIR
**Robert J. Hinkle** Professor (Ph.D., Utah).

GRADUATE DIRECTOR

**Robert D. Pike** Professor (Ph.D., Brown).

PROFESSORS
**Christopher J. Abelt** Chancellor Professor (Ph.D., University of California - Los Angeles), **Deborah C. Bebout** (Ph.D., Cornell), **Randolph A. Coleman** (Ph.D., Purdue), **Elizabeth J. Harbron** Floyd Dewey Gottwald, Sr., Professor (Ph.D., University of North Carolina - Chapel Hill), **Lisa M. Landino** (Ph.D., Virginia), and **John C. Poutsma** Garrett-Robb-Guy Professor (Ph.D., Purdue) (on leave 2019-2020).

ASSOCIATE PROFESSORS
**William R. McNamara** (Ph.D., Yale), **Jonathan R. Scheerer** (Ph.D., Harvard), **Kristin L. Wustholz** Class of 1964 Distinguished Associate Professor (Ph.D, Washington), and **Douglas D. Young** (Ph.D., North Carolina State).

ASSISTANT PROFESSORS
**Nathan M. Kidwell** (Ph.D., Purdue), **Tyler K. Meldrum** (Ph.D., University of California - Berkeley), and **Rachel O'Brien** (Ph.D., University of California - Berkeley).

VISITING ASSISTANT PROFESSOR
**Amanda L. Thorsen** (Ph.D., Washington).

SENIOR LECTURERS
**Dana Lashley** (Ph.D., Auburn), and **Beverly T. Sher** (Ph.D., California Institute of Technology).

LECTURER
**Jordan T. Walk** (Ph.D., Michigan).

EMERITUS PROFESSORS
**Gary C. DeFotis** (Ph.D., Chicago), **Richard L. Kiefer** (Ph.D., University of California - Berkeley), **Stephen K. Knudson** (Ph.D., Massachusetts Institute of Technology), **David E. Kranbuehl** (Ph.D., Wisconsin), **Gary W. Rice** (Ph.D., Iowa State), **William H. Starnes, Jr.** (Ph.D., Georgia Institute of Technology), and **David W. Thompson** (Ph.D., Northwestern).

## The Chemistry Program

The Chemistry Department offers graduate study and research leading to a Master's degree. The programs are designed to give students a great deal of flexibility in crafting a curriculum that meets their professional goals. Thesis-based options include an M.S. involving research in any of the traditional areas (Organic, Physical, Polymer, Inorganic, Analytical, and Biochemistry) and an M.S. that concentrates on Environmental Chemistry. Non-thesis options include a program that prepares students to apply to the Ph.D. program in Applied Science and a M.A. degree program.

## Admission

All applicants must submit scores for the aptitude portions of the Graduate Record Exam taken within the past five years, transcripts, and three letters of recommendation. The subject portion (Chemistry) is recommended but not required.

The Graduate Admissions Committee of the Chemistry Department considers admission to the Chemistry Master's degree programs. Applicants interested in earning a Ph.D. in Applied Science based on research with one of the Chemistry faculty have the options of applying directly to the Ph.D. program in Applied Science or of applying to the Chemistry M.S. degree program with the intent of later applying for admission to the Ph.D. program in Applied Science.

## Programs



## Chemistry, M.S.

*(See general College requirements in 'Graduate Regulations'.)*

### Course Requirements

- At least 30 credit hours of coursework selected under the guidance of a research supervisor or other departmental advisor must be taken for graduate credit. Courses are selected from Chemistry or related fields, especially Biology, Applied Science, Physics, and Marine Science, to complement research and professional interests.
- Undergraduate courses may have to be taken or repeated in areas where adequate preparation appears to be lacking.
- At least twelve semester credits in 600 or higher level courses are required, not including CHEM 700.
- CHEM 650 and CHEM 651 must be taken.
- A minimum of six credits must be taken in Chemistry, not including CHEM 700.
- A minimum of fifteen credits of regular lecture courses approved for graduate credit are required.
- A maximum of three credits for CHEM 693 may be applied towards minimum degree requirements.
- A maximum of six credits for CHEM 695 may be applied towards minimum degree requirements.
- A minimum of six credits for CHEM 700 are required.
- Must receive training in the responsible and ethical conduct of research, including a discussion of fabrication, falsification, and plagiarism, through CHEM 650 /CHEM 651 or an approved alternative.

### Thesis Requirement

M.S. students must successfully complete and defend a thesis under the guidance of a faculty member.

### Comprehensive Exam Requirement

All students must pass a comprehensive examination covering basic and advanced principles of chemistry. This examination is administered in the context of CHEM 651 and is usually taken in the student's second semester in residence.

### Residence Requirement

There is no residence requirement.

### Language Requirement

There is no foreign language requirement.

### Satisfactory Progress

To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree

program.  No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

All requirements for the master's degree must be completed within six years from the first term of enrollment in the master's program, excluding periods of approved leave and military service. Requests for extension beyond the six-year limit must be filed following the procedures outlined in Time Limits for Degrees and Extensions .

Each student will be evaluated at the end of every academic semester for satisfactory progress towards degree by the Director of Graduate Studies in consultation with the student's research advisor. Students with questionable progress towards degree will be referred to the department's Graduate Committee for formal review of continuing financial aid eligibility and other sanctions. All fees must be paid in accordance with university guidelines to maintain active status in the program.

## Chemistry, M.S. combined with Ph.D. in Applied Science

*(See general College requirements in 'Graduate Regulations'.)*

A candidate for the combined degrees of M.S. in Chemistry and Ph.D. in Applied Science must satisfy the course requirements specified by the Applied Science Ph.D. program and all other requirements for both degrees with the following modifications:

- The comprehensive exam for the Applied Science Ph.D. will satisfy the comprehensive exam for the Chemistry M.S. degree.
- No Thesis is required.
- No credits for CHEM 700 can be used to satisfy requirements for either degree.

Chemistry M.S. degree candidates interested in transferring to the Applied Science Ph.D. program should apply for admission during their first year after discussing the opportunity with their research advisors.

See the Chemistry Department website for a typical plan of study.

## Chemistry, M.S., Environmental

(See general College requirements in 'Graduate Regulations'.)

The requirements for the M.S. in Environmental Chemistry are identical to the requirements for the M.S. in Chemistry with the addition of the following specific courses:

- CHEM 504 - Advanced Analytical Chemistry (3)
- MSCI 563 - Environmental Chemistry (3)

## Chemistry, Non-thesis M.A.

(See general College requirements in 'Graduate Regulations'.)

A candidate for the degree of Master of Arts in Chemistry must acquire 32 credits, including 20 credit hours in courses numbered 600 and above, which must include CHEM 650 and CHEM 651 , and are otherwise selected under the guidance of a departmental advisor. All of the requirements for the Chemistry M.S. degree must be satisfied except for the Thesis and associated credits for CHEM 695 -

Directed Thesis Master's Research and CHEM 700 - Thesis, none of which can be applied to the M.A. degree.

**Description of Courses**
Unless otherwise noted, all courses are graded using standard grading [A, B, C, D, F] scheme (See Grading and Academic Progress in the section entitled Graduate Regulations) and may not be repeated for credit (See Repeated Courses requirements in the section entitled Graduate Regulations). For a list of Chemistry (CHEM prefix) courses, see Course Descriptions.

# Computer Science Department

## Computer Science Faculty

Chair
**Robert Michael Lewis** Associate Professor (Ph.D., Rice).

Graduate Director
**Pieter Peers** Associate Professor (Ph.D., Katholieke Universiteit Leuven).

Professors
**Peggy Agouris** (Ph.D., Ohio State), **Qun Li** (Ph.D., Dartmouth), **Weizhen Mao** (Ph.D., Princeton), **Evgenia Smirni** Professor (Ph.D., Vanderbilt) (on leave Spring 2020), **Andreas Stathopoulos** (Ph.D., Vanderbilt) (on leave Spring 2020), **Anthony Stefanidis** (Ph.D., Ohio State), **Virginia Torczon** Chancellor Professor (Ph.D., Rice), and **Gang Zhou** (Ph.D., Virginia).

Associate Professors
**Peter Kemper** (Ph.D., Dortmund), and **Denys Poshyvanyk** (Ph.D., Wayne State).

Assistant Professors
**Oscar Chaparro** (Ph.D., Texas - Dallas), **Dmitry Evtyushkin** (Ph.D., SUNY Binghamton), **Tianran Hu** (Ph.D., Rochester), **Adwait Jog** (Ph.D., Pennsylvania State), **Pradeep Kumar** (Ph.D., George Washington), **Xu Liu** (Ph.D., Rice), **Zhenming Liu** (Ph.D., Harvard), **Adwait Nadkarni** (Ph.D., North Carolina State), and **Bin Ren** (Ph.D., Ohio State).

Senior Lecturer
**James Deverick** (M.S., William & Mary).

Lecturers
**Tim Davis** (Ph.D., North Carolina State), **Shuyin Jiao** (Ph.D., Houston), and **Dana Willner** (Ph.D., San Diego State).

Adjunct Professors
**Philip deCamp** (Ph.D., Georgia Tech), **Rex K. Kincaid** (Ph.D., Purdue) (on leave Fall 2019), **Lawrence M. Leemis** (Ph.D., Purdue) (on leave Spring 2020), **Ahn Ninh** (Ph.D., Rutgers), **Xipeng Shen** (Ph.D., Rochester), **Chris Shenefiel** (M.S., Illinois Urbana-Champaign), **Anke van Zuijlen** (Ph.D., Cornell), and **Haining Wang** (Ph.D., Michigan).

Emerita Professor
**Deborah S. Noonan** (M.S., William & Mary).

Emeritus Professors
**William L. Bynum** (Ph.D., North Carolina - Chapel Hill), **Stefan Feyock** (Ph.D., Wisconsin), **Phil Kearns** (Ph.D., Virginia), **Richard H. Prosl** (Ph.D., Rensselaer), and **Paul K. Stockmeyer** (Ph.D., Michigan).

## The Computer Science Program

### General Description

The Computer Science Department offers a Master of Science (M.S.) and a Doctor of Philosophy (Ph.D.) in computer science. In conjunction with faculty from the Mathematics Department, the department also offers a M.S. with a specialization in computational operations research. In addition, the department offers a M.S. and a Ph.D. with a specialization in computational science. The Department provides a strong research program with faculty actively engaged in research in the following areas: algorithms, computer systems and networking, high performance computing, modeling and simulation, programming languages and compilers, software verification, software engineering, graphics, and scientific computing.

## Admission

William & Mary uses an online application system. Application materials consist of GRE scores taken within the past five years, transcripts, and three letters of recommendation. Applicants are encouraged (but not required) to submit results from a suitable subject area. If English is not your first language, your Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores are required and must be sent directly to William & Mary by the Educational Testing Service or IELTS.

### Admission requirements for the M.S. and Ph.D. in computer science

Students seeking the M.S. or Ph.D. degrees in computer science are expected to have a background that includes the following:

- Mathematics: two calculus courses and one linear algebra course.
- Computer Science: two introductory programming courses (CS1 and CS2 in the standard computer science curriculum) and one course in each of discrete mathematics, data structures, algorithms, and computer organization.

Applicants lacking this background may be admitted provisionally into the M.S. program. In that case, the department will establish a suitable set of qualifying courses at the time of admission. To achieve regular status, provisionally accepted students must earn at least a B in each qualifying course. There is no provisional admission into the Ph.D. program.

### Admission requirements for the M.S. with a specialization in Computational Operations Research

Students seeking the M.S. degree with a specialization in computational operations research are expected to have a background in mathematics, science or engineering and the ability to program in a high-level language. Students with insufficient background in computer science may be required to enroll in CSCI 241 and CSCI 303. Applicants lacking an appropriate background may be admitted provisionally.

### Admission requirements for the M.S. with a specialization in Computational Science

Students seeking the M.S. degree with a specialization in computational science are expected to have a background in mathematics, science or engineering that includes the following:

- Mathematics: two calculus courses and one linear algebra course
- Computer Science: two introductory programming courses (CS1 and CS2 in the standard computer science curriculum).

Students with insufficient background in data structures, algorithms, computer organization, and systems programming may be required to enroll in CSCI 241, CSCI 303, CSCI 304, and CSCI 415.

### Programs

- Computer Science, M.S.
- Computer Science, Ph.D.
- Computer Science, Specialization in Computational Operations Research, M.S.
- Computer Science, Specialization in Computational Science, M.S.
- Computer Science, Specialization in Computational Science, Ph.D.

## Computer Science, M.S.

Students must submit a 2-year plan of study at the beginning of their first semester in the M.S. program, which must be endorsed by their faculty advisors and then approved by the Graduate Admission Committee.

Students who opt to complete a thesis must complete 24 credits, and those who choose not to complete a thesis must complete 32 credits.

### Course Requirements

- CSCI 653 - Analysis of Algorithms
- At least two additional 600-level courses
- A student cannot use the following courses to satisfy degree requirements without prior written approval of the student's advisor and the Graduate Admissions Committee:
    - Courses taken in another department
    - CSCI 666 - Directed Studies
    - CSCI 685 - Colloquium
    - CSCI 690 - Readings in Computer Science
    - CSCI courses designated as Computational Operations Research courses (last digit in the course number is an 8)
    - Not more than 12 credits from courses numbered below 600 may be counted towards the degree.
    - CSCI 700 - Thesis

### Thesis Requirement

Students may choose to write a thesis or not.

Students who choose the thesis option must complete CSCI 700 - Thesis, in addition to 24 credit hours, and defend their thesis at an oral examination, open to the faculty and to whomever else the department may invite. CSCI 710 - Research Project cannot be applied to the 24 credits.

Students who do not choose the thesis option must include CSCI 710 - Research Project as part of their 32 credit hours.

### Comprehensive Exam Requirement

See the Graduate Regulations.

### Foreign Language Requirement
There is no foreign language requirement.

### Satisfactory Progress
To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program.  Students with less than a 3.0 average may appeal in writing to the department's Committee on Admission, Retention, and Financial Aid to remain in the graduate program. The committee normally rejects appeals from students with less than a 2.75 grade point average. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

All requirements for the master's degree must be completed within six years from the first term of enrollment in the master's program, excluding periods of approved leave and military service. Requests for extension beyond the six-year limit must be filed following the procedures outlined in Time Limits for Degrees and Extensions .

## Computer Science, Ph.D.

### Course Requirements
Students seeking the Ph.D. in computer science must complete eight courses taken in the Computer Science Department at William & Mary.

Six courses must be chosen from 600 level courses, excluding CSCI 685 - Colloquium, CSCI 690 - Readings in Computer Science, CSCI 666 - Directed Studies, and all courses with numbers 6x8. The remaining two courses must be chosen from 700 level courses, excluding CSCI 700 - Thesis, CSCI 708 - Research Project in Computational Operations Research, CSCI 710 - Research Project, CSCI 766 - Directed Studies, CSCI 785 - Colloquium, and CSCI 790 - Readings in Computer Science.

A student may not use courses taken in another department nor CSCI courses designated as Computational Operations Research courses (last digit in the course number is an 8), to satisfy degree requirements without prior written approval of the student's advisor and the Graduate Admissions Committee.

### Qualifying Exam Requirement
In addition to required course work, doctoral students will identify a principal research advisor, form a doctoral advisory committee, and petition the department for acceptance into candidacy for the Ph.D. degree. After acceptance into candidacy, students must pass the thesis proposal exam. This examination is oral, is conducted by the candidate's committee, and is open to the faculty and to whomever else the department may invite.

### Dissertation Requirement
Candidates must submit and satisfactorily complete a pre-defense to a committee of four faculty from the department. Only after successfully completing the pre-defense, a candidate may defend a dissertation to a committee of at least five members, with at least one member from outside the department. The dissertation is based on original research and should contribute to the discipline's body of knowledge. The defense is oral and is open to the faculty and to whomever else the department may invite.

### Foreign Language Requirement
There is no foreign language requirement.

### Satisfactory Progress
All courses must be completed with at least a 3.7 grade point average in seven of the eight courses, and with no individual grade lower than B-. To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

Each year, the faculty will review how well doctoral students have progressed toward completion of their Ph.D. degree. The department provides written guidance to help students judge their own progress.

All requirements for the Ph.D. must be completed within seven years from the first term of enrollment in the Ph.D. program, excluding periods of approved leave and military service. For a student enrolled in a master's program in the College of Arts & Sciences who subsequently advances to candidacy in the doctoral program in the same field, the terms of enrollment in the master's program will count towards the seven-year limit for the doctoral degree unless otherwise stated in the letter of admission.

In Computer Science with a specialization in Computational Operations Research, students receiving admission to the M.S. program in Computational Operations Research must apply to the Ph.D. program in Computer Science after completing the M.S. degree requirements. Such students would have (7) seven years from the time of this second admission to complete the Ph.D. requirements.

In addition, the department provides more specific regulations than those conveyed in this catalog. Students are solely responsible for familiarizing themselves with all guidelines and regulations of the department.

## Computer Science, Specialization in Computational Operations Research, M.S.

### Course Requirements
Students must complete 32 graduate credits, including one of the following:

- CSCI 698 - Simulation and Modeling Project in Computational Operations Research 3
- CSCI 708 - Research Project in Computational Operations Research (2,2)
- CSCI 710 - Research Project 2,2
  In addition, students must satisfactorily complete at least seven courses from the following list of courses in the computational operations research area.

- CSCI 608 - Decision Theory 3
- CSCI 618 - Models and Applications in Operations Research 3
- CSCI 628 - Linear Programming 3
- CSCI 638 - Nonlinear Programming 3
- CSCI 648 - Network Optimization 3
- CSCI 658 - Discrete Optimization 3
- CSCI 668 - Reliability 3
- CSCI 678 - Statistical Analysis of Simulation Models 3
- CSCI 688 - Topics in Computational Operations Research 3

- CSCI 698 - Simulation and Modeling Project in Computational Operations Research
- CSCI 708 - Research Project in Computational Operations Research

The following Mathematics courses may count towards the 32 credit hours and do not require the graduate credit permission form for a course taken outside of their program of study.

MATH 524, MATH 551, and/or MATH 552

Any Computer Science (CSCI) course not designated as a Computational Operations Research course (last digit in the course number is an 8), may not be used to satisfy degree requirements without prior written approval of the Director of Graduate Studies for Computational Operations Research.

### Thesis Requirement
There is no thesis option for this specialization.

### Comprehensive Exam Requirement
See the Graduate Regulations.

**Foreign Language Requirement**
There is no foreign language requirement.

### Satisfactory Progress
To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to the M.S. degree program specialization in Computational Operations Research. Students with less than a 3.0 average may appeal in writing to the department's Committee on Admission, Retention, and Financial Aid to remain in the graduate program. The committee normally rejects appeals from students with less than a 2.75 grade point average. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

All requirements for the master's degree must be completed within six years from the first term of enrollment in the master's program, excluding periods of approved leave and military service. Requests for extension beyond the six-year limit must be filed following the procedures outlined in Time Limits for Degrees and Extensions.

## Computer Science, Specialization in Computational Science, M.S.

### Course Requirements
Students who opt to complete a thesis must complete 24 credits, and those who choose not to complete a thesis must complete 32 credits.

- CSCI 649 - Computational Methods 3
- CSCI 653 - Analysis of Algorithms 3
- At least one additional 600-level course
- Students must satisfactorily complete at least one graduate course from outside the Computer Science Department

  A student cannot use the following courses to satisfy degree requirements:

- CSCI 666 - Directed Studies (1-12) (Hours and credits to be arranged)
- CSCI 685 - Colloquium (0-2)
- CSCI 690 - Readings in Computer Science (1, 2, or 3 credits, depending on the material covered)
- CSCI courses designated as Computational Operations Research courses (last digit in the course number is an 8)
- More than one course taken outside the Computer Science Department
- Not more than 12 credits from courses numbered below 600 may be counted toward the degree.

### Thesis Requirement
Students may choose to write a thesis or not.

Students who choose the thesis option must complete CSCI 700, M.S. Thesis, in addition to 24 credit hours, and defend their thesis at an oral examination, open to the faculty and to whomever else the department may invite.

Students who do not choose the thesis option must include CSCI 710, Research Project, as part of their 32 credit hours.

### Comprehensive Exam Requirement
See the Graduate Regulations.

### Foreign Language Requirement
There is no foreign language requirement.

### Residence Requirement
See the Graduate Regulations.

### Computational Science Cluster Certification
Each student will have a two-person computational science advisory committee within the department to advise the student about what is needed to meet the certification requirements of the Computational Science Cluster.

### Satisfactory Progress
To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. Students who have taken twelve or more credits in courses leading to a graduate degree must maintain a minimum grade point average of 3.0. Students with less than a 3.0 average may appeal in writing to the department's Committee on Admission, Retention, and Financial Aid to remain in the graduate program. The committee normally rejects appeals from students with less than a 2.75 grade point average. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

## Computer Science, Specialization in Computational Science, Ph.D.

A candidate for the Ph.D in Computer Science with a specialization in Computational Science must satisfy the requirements specified by the Computer Science, Ph.D. with the following modifications:

### Course Requirements

Students seeking the Ph.D. in computer science with a specialization in Computational Science must complete eight courses taken at William & Mary. CSCI 649 - Computational Methods is required, as is at least one graduate course from outside the department.

If two or more graduate courses outside the department are taken, only one of them can be used to satisfy the department's eight-course requirement. In all cases, the grade point average will be based on the seven courses taken inside the department.

### Computational Science Advisory Committee

Each computational science student will have a three-person computational science advisory committee within the department to advise the student about what is needed to meet the certification requirements of the Computational Science Cluster.

The committee will also approve the graduate course(s) from outside the department, and ensure that the dissertation topic incorporates computation in a creative way, either by developing an enabling computational technology or by using such technologies to obtain a significant scientific result.

### Description of Courses

Wherever a William & Mary course is specified as a prerequisite, it is understood that appropriate experience or an equivalent course, taken at another institution, may be substituted for the specified prerequisite. Each such substitution must be approved by the instructor of the course for which a substitution is appropriate. Generally, graduate students should also consult with their advisors to verify that they meet all course prerequisites.

Note that 500-level courses are cross-listed as 400-level courses in the undergraduate catalog and will thus be open to undergraduates. In these cross-listed courses, there will be higher expectations and additional requirements for graduate students. Students should consult with the instructor of such a course for further information.

Unless otherwise noted, all courses are graded using standard grading [A, B, C, D, F] scheme (See Grading and Academic Progress in the section entitled Graduate Regulations) and may not be repeated for credit (See Repeated Courses). For a list of Computer Science (CSCI prefix) courses, see Course Descriptions.

## History Department

### History Faculty

CHAIR
**Frederick Corney** Professor (Ph.D., Columbia).

GRADUATE DIRECTOR
**Paul Mapp** William E. Pullen Associate Professor (Ph.D., Harvard).

PROFESSORS
**Philip Daileader** (Ph.D., Harvard), **Melvin Ely** William R. Kenan, Jr., Professor of Humanities (Ph.D., Princeton), **Christopher Grasso** (Ph.D., Yale), **Lu Ann Homza** (Ph.D., Chicago), **Leisa Meyer** William & Mary Community Studies Professor of American Studies, History, and Gender, Sexuality, and Women's Studies (Ph.D., Wisconsin-Madison), **Joshua Piker** (Ph.D., Cornell), **Ronald**

**Schechter** (Ph.D., Harvard), **Carol Sheriff** (Ph.D., Yale), **Trent Vinson** Frances L. and Edwin L. Cummings Professor (Ph.D., Howard), **James Whittenburg** (Ph.D., Georgia) (on leave Spring 2020), **Karin Wulf** (Ph.D., Johns Hopkins), and **Chitralekha Zutshi** (Ph.D., Tufts).

ASSOCIATE PROFESSORS
**Kveta Benes** James Pinckney Harrison Professor (Ph.D., Washington - Seattle), **Chandos Brown** (Ph.D., Harvard) (on leave Fall 2019), **Gérard Chouin** (Ph.D., Syracuse) (on leave 2019-2020), **Andrew Fisher** (Ph.D., Arizona State), **Eric Han** (Ph.D., Columbia), **Ayfer Karakaya-Stump** (Ph.D., Harvard) (on leave 2019-2020), **Hiroshi Kitamura** (Ph.D., Wisconsin - Madison), **Laurie Koloski** (Ph.D., Stanford), **Betsy Konefal** (Ph.D., Pittsburgh), **Kathrin Levitan** Associate Professor (Ph.D., Chicago) (on leave 2019-2020), **Charles McGovern** (Ph.D., Harvard), **Simon Middleton** (Ph.D., CUNY Graduate Centre) (on leave Spring 2020), **Adrienne Petty** (Ph.D., Columbia), **Jeremy Pope** (Ph.D., Harvard), **Nicholas Popper** Kohlhagen Associate Professor (Ph.D., Princeton), **Fabricio Prado** (Ph.D., Emory), **Hannah Rosen** (Ph.D., Chicago), and **Richard Turits** (Ph.D., Chicago) (on leave 2019-2020).

ASSISTANT PROFESSORS
**Jody Allen** (Ph.D., William & Mary), **Maria Galmarini-Kabala** (Ph.D., Illinois at Urbana-Champaign), **Joshua Hubbard** (Ph.D., Michigan), and **Chinua Thelwell** (Ph.D., New York University).

COURTESY PROFESSORS
**Cindy Hahamovitch** (Ph.D., North Carolina - Chapel Hill), and **Scott Nelson** (Ph.D., North Carolina - Chapel Hill).

COURTESY ASSOCIATE PROFESSOR
**Brett Rushforth** (Ph.D., California - Davis).

ADJUNCT ASSOCIATE PROFESSORS
**Susan Kern** (Ph.D., William & Mary), and **Carl Lounsbury** (Ph.D., George Washington).

ADJUNCT ASSISTANT PROFESSORS
**Michael Butler** (Ph.D., Virginia), and **Amy Limoncelli** (Ph.D., Boston College).

VISITING ASSISTANT PROFESSOR
**Jerry Watkins, III** (Ph.D., King's College).

LECTURERS
**Marley Brown, III** (Ph.D., Brown), **Cary Carson** (Ph.D., Harvard), **Nicole Dressler** (Ph.D., Northern Illinois), **Charles F. Hobson** (Ph.D., Emory), **James Horn** (Ph.D., Sussex), **Julie Richter** (Ph.D., William & Mary), **Abby Schreiber** (Ph.D., Ohio State), and **Nadine Zimmerli** (Ph.D., Wisconsin-Madison)

## The History Program

The History Department offers a Doctoral program and a Master's program.

The Doctoral program is for students wishing to earn both an M.A. and Ph.D. at William & Mary. Students will receive instruction in teaching techniques and have opportunities to serve as Teaching Assistants and to teach their own courses under the supervision of faculty. Ph.D. students receive full funding (tuition, fees, and stipend) for six years.

The Master's program is a small and intensive program where students earn their M.A. in one year. Applicants to the M.A. program may apply for apprenticeships in archives and manuscript collections,

editing scholarly books and William and Mary Quarterly articles, and humanities computing. Students chosen to serve as apprentices receive a small stipend.

### Admission

William & Mary uses an online application system. Applicants must submit official transcripts, three letters of recommendation, and GRE scores taken within the past five years. A writing sample is required. If English is not your first language, your Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores are required and must be sent directly to William & Mary by the Educational Testing Service or IELTS. The TOEFL/IELTS requirement can be waived for applicants who will have received a degree from a college or university in which English is the primary language of instruction. A transcript is required as evidence of successful instruction in English as a primary language. For full consideration, completed applications must be submitted by December 5, 2018 for Fall 2019 admissions for the M.A. and Ph.D. programs. Applications submitted after the program's deadline may be evaluated if space is available. Minimum requirements for admission include an overall academic average of 3.0 on a 4.0 scale and the completion of 24 semester hours of work in history. Additional hours in history and course work in a foreign or classical language are highly recommended.

Part-time students are not eligible for financial support.

## Programs

- History, M.A.
- History, Ph.D.

## History, M.A.

Students will take two semesters of coursework and will prepare a research portfolio. Most full-time students will complete the requirements within one year. The History Department's Graduate Regulations contain details on how to fulfill the following requirements.

### Course Requirements

All M.A. students must complete 24 credit hours of coursework, not including credits for HIST 700 - Thesis . These 24 credit hours will include:

- HIST 695 - Directed Thesis Master's Research (variable 3-9) (Total of 6 credits)
- HIST 700 - Thesis (variable 1-12) (Course required but not for credit)
- HIST 701 - Historian's Craft (3)
- HIST 712 - Research Seminars (3) (Select two for a total of 6 credits)
- HIST 715 - Readings Seminars (3) (Select three for a total of 9 credits)

### Thesis Requirement

Students will prepare a research portfolio consisting of two major research papers approved by a committee.

### Exam Requirement

See the History Department Graduate Regulations at:
https://www.wm.edu/as/history/gradprogram/currentgrad/graduateregulations/index.php

### Foreign Language Requirement

Candidates must demonstrate by departmental examination a reading knowledge of a foreign or classical language in which there is a significant historical literature.

### Residence Requirement
Full-time M.A. students must be in residence for at least two semesters.

### Satisfactory Progress
Full-time M.A. students must complete all degree requirements by March 31 of the year following matriculation. Those admitted as part-time students must complete all degree requirements within three years of starting the program.

To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program.  A student who receives a grade of C+ (2.3) or lower in a course may repeat that course one time for credit, upon approval of both the instructor of the course and the graduate director for the student's program.When such a repeat attempt is approved, the grades for both attempts will count in the cumulative GPA, but on the most recent attempt will count toward the degree. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

All requirements for the master's degree must be completed within six years from the first term of enrollment in the master's program, excluding periods of approved leave and military service. Requests for extension beyond the six-year limit must be filed following the procedures outlined in Time Limits for Degrees and Extensions in the Graduate Arts & Sciences Catalog.

## History, Ph.D.

Students in the Ph.D. program will earn both the M.A. and Ph.D. degrees. The History Department's Graduate Regulations contain details on how to fulfill the following requirements.

### Course Requirements
Two years of coursework are required for the Ph.D. degree. Ph.D. students must complete all course requirements for the M.A. degree, including:

- HIST 695 - Directed Thesis Master's Research (variable 3-9)
- HIST 701 - Historian's Craft (3)
- HIST 712 - Research Seminars (3) (Select two for a total of 6 credits)
- HIST 715 - Readings Seminars (3) (Select three for a total of 9 credits)
- HIST 800 - Dissertation (1-12)
- In addition, candidates for the Ph.D. degree must complete at least 28 hours of graduate coursework in History (not including HIST 800 - Dissertation ) beyond the Master's level.

### Research Portfolio Requirement
Students will prepare a research portfolio consisting of two major research papers.

### Qualifying Exam Requirement
In the fall semester of their third year, Ph.D. students take a written and oral comprehensive qualifying examination in four fields. To qualify to take the comprehensive examinations, students must have completed any outstanding requirements by the end of the previous semester.

### Dissertation Requirement
See the History Department’s Graduate Regulations at:

https://www.wm.edu/as/history/gradprogram/currentgrad/graduateregulations/index.php

### Foreign Language Requirement
Candidates must demonstrate by departmental examination a reading knowledge of a foreign or classical language in which there is a significant historical literature.

### Residence Requirement
See the History Department's Graduate Regulations at:
https://www.wm.edu/as/history/gradprogram/currentgrad/graduateregulations/index.php

### Satisfactory Progress
Ph.D. students must complete all requirements for the M.A. degree by March 15 of their second year in residence.

To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. A student who receives a grade of C+ (2.3) or lower in a course may repeat that course one time for credit, upon approval of both the instructor of the course and the graduate director for the student's program.When such a repeat attempt is approved, the grades for both attempts will count in the cumulative GPA, but only the most recent attempt will count toward the degree. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

All requirements for the Ph.D. must be completed within seven years from the first term of enrollment in the Ph.D. program, excluding periods of approved leave and military service. For a student enrolled in a master's program in the College of Arts & Sciences who subsequently advances to candidacy in the doctoral program in the same field, the terms of enrollment in the master's program will count towards the seven-year limit for the doctoral degree unless otherwise stated in the letter of admission.

### Description of Courses
Courses listed in this catalog are not offered every academic year.

Unless otherwise noted, all courses are graded using standard grading [A, B, C, D, F] scheme (See Grading and Academic Progress in the section entitled Graduate Regulations) and may not be repeated for credit (See Repeated Courses). For a list of History (HIST prefix) courses, see Course Descriptions.

## Physics Department

### Physics Faculty

Chair
**Christopher D. Carone** Professor (Ph.D., Harvard).

Graduate Director
**Jeffrey K. Nelson** Professor (Ph.D., Minnesota).

Professors

**David S. Armstrong** Chancellor Professor (Ph.D., British Columbia), **Todd D. Averett** (Ph.D., Virginia) (on leave 2019-2020), **Carl E. Carlson** Class of 1962 Professor (Ph.D., Columbia), **William E. Cooke** (Ph.D., MIT), **Joshua Erlich** (Ph.D., MIT), **Keith A. Griffioen** (Ph.D., Stanford), **Gina L. Hoatson** (Ph.D., East Anglia), **Michael A. Kordosky** (Ph.D., Texas - Austin), **Henry Krakauer** (Ph.D., Brandeis), **Dennis M. Manos** CSX Professor of Physics and Applied Science (Ph.D., Ohio State), **Robert D. McKeown** Governor's Distinguished CEBAF Professor (Ph.D., Princeton), **Irina Novikova** (Ph.D., Texas A&M) (on leave 2019-2020), **Konstantinos N. Orginos** (Ph.D., Brown), **Jianwei Qiu** Governor's Distinguished CEBAF Professor (Ph.D., Columbia), **Marc T. Sher** (Ph.D., Colorado), **Eugene R. Tracy** Chancellor Professor and Alfred Ritter Term Professor, and Fellow with the Center for the Liberal Art (Ph.D., Maryland), **George M. Vahala** (Ph.D., Iowa), **Patricia L. Vahle** (Ph.D., Texas - Austin), and **Shiwei Zhang** (Ph.D., Cornell) (on leave 2019-2020).

Associate Professors
**Seth A. M. Aubin** (Ph.D., SUNY - Stony Brook), **Jozef J. Dudek** (D.Phil., Oxford), **Eugeniy Mikhailov** (Ph.D., Texas A&M), **M. Mumtaz Qazilbash** (Ph.D., Maryland - College Park), and **Enrico Rossi** (Ph.D., Texas - Austin).

Assistant Professors
**Christopher J. Monahan** (Ph.D. Cambridge), **Saskia Mordijck** (Ph.D., University of California - San Diego), and **Justin R. Stevens** (Ph.D., Indiana).

Adjunct Professors
**Peter E. Bosted** (Ph.D., MIT), **Warren Buck** (Ph.D., William & Mary), **John B. Delos** (Ph.D., MIT), **Wally Melnitchouk** (Ph.D., Adelaide), **David Richards** (Ph.D., Cambridge), **Malathy Devi Venkataraman** (Ph.D., Kerala), **Andre Walker-Loud** (Ph.D., Washington), and **Bogdan Wojtsekhowski** (Ph.D., Novosibirsk).
**Director of Teaching Labs**
**Hani Dulli** (Ph.D., Tennessee).

Professors Emeriti
**Roy L. Champion** Chancellor Professor (Ph.D., Florida), **Morton Eckhause** (Ph.D., Carnegie-Mellon), **Franz L. Gross** (Ph.D., Princeton), **William J. Kossler** (Ph.D., Princeton), **R. Alejandra Lukaszew** (Ph.D., Wayne State), **John L. McKnight** (Ph.D., Yale), **Charles F. Perdrisat** (D.Sc. ETH, Zurich), **Kenneth G. Petzinger** (Ph.D., Pennsylvania), **Harlan E. Schone** (Ph.D., California - Berkeley), **Hans C. von Baeyer** Chancellor Professor (Ph.D., Vanderbilt), **J. Dirk Walecka** Governor's Distinguished CEBAF Professor (Ph.D., MIT), and **Robert E. Welsh** Chancellor Professor (Ph.D., Pennsylvania State).

## The Physics Program

The mission of the Physics Department at William & Mary is the creation and dissemination of knowledge of the physical world through teaching, research, and public service. The Physics Department offers graduate study and research that leads to the Ph.D. degree.

Students applying with an undergraduate degree must satisfactorily complete the M.S. requirements before working towards the PhD. We do not admit students who are seeking a terminal Master's degree, though one may be awarded if a student must leave the program after completing all requirements for the M.S.

Our research mission is to understand the fundamental origin and the mathematical description of physical phenomena. Currently, the Department of Physics conducts active research in the following areas:

- Atomic, Molecular, and Optical Physics
- Condensed Matter Experiment
- Condensed Matter Theory
- Nuclear and Hadronic Experiment
- Nuclear and Hadronic Theory
- High Energy Experiment
- High Energy Theory
- Plasma and Nonlinear Physics

In addition, we have affiliated efforts in accelerator physics (in cooperation with Jefferson Lab) and materials characterization (in cooperation with NASA-Langley Research Center). The Physics Department maintains strong links with William & Mary's Applied Science Department and students can work on projects there as well.

## Program Structure

The graduate program in physics at William & Mary rests on three pillars: coursework, teaching, and research.

**Coursework:** All candidates for graduate degrees must successfully complete a program of core plus elective courses that is approved by the department.

**Teaching**: Teaching is an integral part of the educational process for those who seek an advanced degree. Degree candidates will be assigned teaching duties for at least two semesters.

**Research:** The Department carries out experimental and theoretical research in many subfields, and the results are communicated in refereed journals, in conferences and seminars, and in books. Graduate students learn to conduct original scientific research in physics.

Graduate students are also expected to participate in the Department's public service efforts.

## Admission Requirements

Students are admitted directly to the Ph.D. program. Students who have recently completed their undergraduate degree as well as students who have completed a Masters are considered for admission. The department will endeavor to provide financial support to Ph. D. students who are making satisfactory progress in their course work and research.

William & Mary uses an online application system. Application materials consist of GRE scores taken within the past five years including both the GRE General Test and the GRE subject test (Physics), transcripts, and three letters of recommendation. Supplemental application questions are also required. If English is not your first language, your Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores are required and must be sent directly to William & Mary by the Educational Testing Service or IELTS.

Although exceptions are made, it is recommended that graduate students begin their course work in the fall semester. New students who will be supported during the academic year may receive research assistantships for the summer before they begin their formal course work if funds are available.

## Programs

- Physics, M.S.

- Physics, Ph.D.

## Physics, M.S.

### Course Requirements
The candidate must accumulate a total of 32 credit hours by completing a program of courses approved by the Department. This program depends on the candidate's preparation and special interests, but will normally include:

- PHYS 601 - Classical Mechanics
- PHYS 603 - Mathematical Physics
- PHYS 610 - Classical Electricity and Magnetism-I
- PHYS 621 - Quantum Mechanics - I
- PHYS 622 - Quantum Mechanics - II
- PHYS 630 - Statistical Physics and Thermodynamics
- PHYS 685 - Colloquium
- PHYS 651 - Teaching Physics

### Thesis Requirement
There is no thesis requirement.

### Comprehensive Exam Requirement
The candidate must take the Ph.D. qualifying exam. This exam deals with the undergraduate material, the content of the first-year graduate courses and colloquia. There are two possible outcomes of the qualifying exam: pass or not pass at the Ph.D. level. Passing at the Ph.D. level satisfies the exam requirement for an M.S. degree. Otherwise, the Physics faculty will consider the qualifying exam score, along with academic performance in course work and research performance (if any), in order to determine whether the standards for a Master of Science degree are met. A student is granted two attempts to pass the qualifying examination; further attempts may be allowed by the Departmental Graduate Studies Committee on the basis of a petition by the candidate.

### Language Requirement
All graduate students who were required to take the TOEFL exam for admission will also be required to take courses on written or spoken English (listed as GRAD in the Graduate Course Catalog) as recommended by the Graduate Center. A student and his/her adviser can jointly petition the Graduate Studies Committee to waive this requirement.

There is no foreign language requirement for native English-speakers.

### Satisfactory Progress
To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0). Before taking the qualifying exam, satisfactory progress consists of achieving at least a B (3.0/4.0) average in course work and satisfactory teaching (or, if appropriate, research) evaluations.

## Physics, Ph.D.

## Course Requirements
The candidate must complete an individual program of courses approved by the Department. This program depends on the candidate's preparation and special interests, but, assuming proficiency in the master's level courses, will include:

- PHYS 611 - Classical Electricity and Magnetism-II
- PHYS 721 - Quantum Field Theory - I
- An additional semester of PHYS 685 - Colloquium
- And either Teaching or Research

## Dissertation Requirement
The candidate must perform research, which is an original and substantial contribution. The dissertation must be approved by a faculty committee and successfully defended in a public oral examination.

## Qualifying Exam Requirement
The candidate must take the Ph.D. qualifying exam. This exam deals with the undergraduate material, the content of the first-year graduate courses and colloquia. There are two possible outcomes of the qualifying exam: pass or not pass at the Ph.D. level. A student is granted two attempts to pass the qualifying examination; further attempts may be allowed by the Departmental Graduate Studies Committee on the basis of a petition by the candidate.

## Language Requirement
All graduate students who were required to take the TOEFL exam for admission will also be required to take courses on written or spoken English (listed as GRAD in the Graduate Course Catalog) as recommended by the Graduate Center. A student and his/her adviser can jointly petition the Graduate Studies Committee to waive this requirement.

There is no foreign language requirement for native English-speakers.

## Teaching Requirement
Teaching is an integral part of the educational process for those who seek an advanced degree, and therefore degree candidates will be assigned teaching duties for at least two semesters and are expected to register for at least two semesters of PHYS 651 Teaching Physics in conjunction with their teaching assignment. There will be an evaluation upon completion of the assignment, and the grade for this course is based on their performance of their teaching duties.

## Satisfactory Progress
Satisfactory progress is measured in different ways depending on the student's standing in the program.

For students who have not passed the qualifying examination, satisfactory progress consists of achieving at least a B (3.0/4.0) average in course work and satisfactory teaching (or, if appropriate, research) evaluations.

Starting from the second year of graduate study, the student is required to have an annual review every academic year. The review committee will consist of the advisor and at least two other physics faculty members. This review will normally consist of a presentation of recent progress by the student followed by discussion with the committee.

To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree

program. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

### Description of Courses

Unless otherwise noted, all courses are graded using standard grading [A, B, C, D, F] scheme (See Grading and Academic Progress in the section entitled Graduate Regulations) and may not be repeated for credit (See Repeated Courses). For a list of Physics (PHYS prefix) courses, see Course Descriptions.

## Psychological Sciences Department

### Psychological Sciences Faculty

Chair
**Joshua A. Burk** Professor (Ph.D., New Hampshire).

Graduate Director
**Danielle H. Dallaire** Professor (Ph.D., Temple).

Professors
**Pamela S. Hunt** (Ph.D., SUNY-Binghamton), **Lee A. Kirkpatrick** (Ph.D., Denver), **Harvey J. Langholtz** (Ph.D., Oklahoma), **Michael P. Nichols** (Ph.D., Rochester), **Todd M. Thrash** (Ph.D., Rochester), and **Janice L. Zeman** (Ph.D., Vanderbilt).

Associate Professors
**Christopher T. Ball** (Ph.D., Flinders University), **Robert C. Barnet** (Ph.D., SUNY-Binghamton), **Cheryl L. Dickter** (Ph.D., North Carolina-Chapel Hill), **Catherine A. Forestell** (Ph.D., Dalhousie University), **Matthew R. Hilimire** (Ph.D., Georgia Institute of Technology), **Paul D. Kieffaber** (Ph.D., Indiana University), **Constance J. Pilkington** (Ph.D., Georgia), **Joanna Schug** (Ph.D., Hokkaido University) (on leave 2019-2020), **Jennifer A. Stevens** (Ph.D., Emory), and **Peter M. Vishton** (Ph.D., Cornell) (on leave 2019-2020).

Assistant Professors
**Adrian Bravo** (Ph.D., Old Dominion University), and **Xiaowen Takkala** (Ph.D., University of Toronto).

Visiting Assistant Professors
**Frederick Ernst** (Ph.D., Ohio State University), and **Jaclyn Moloney** (Ph.D., Virginia Commonwealth University).

Senior Lecturers
**Meghan Miller** (Ph.D., Pennsylvania State University), and **M. Christine Porter** (Ph.D., New Hampshire).

Lecturers
**Brian Rabinovitz** (Ph.D., American University), and **Kaityln Harrigan** (Ph.D., University of Maryland).

Professors Emeriti
**Joseph Galano** (Ph.D., Bowling Green State), **John B. Nezlek** (Ph.D., Rochester), **Glenn D. Shean** (Ph.D., Arizona), and **W. Larry Ventis** (Ph.D., Tennessee).

### The Psychological Sciences Program

The Master's Program in Psychological Sciences is research-oriented and designed to prepare students for admission to Ph.D. programs in all areas of psychology. Established in 1953, the program is a selective one, admitting approximately 8 applicants per year. The program's small size allows for close interaction among students and faculty and, therefore, superior training for the students in the program.

There is an immediate and continuing emphasis on research. Faculty support student interests in a wide range of research areas, including neuroscience, social, cognitive, clinical, and developmental psychology.

### Program Structure

Our students are expected to complete the full-time program of course work and research in two years. Students complete a Master's thesis in their second year. In addition to pro-seminars on various topics in psychology, students take a professional development course devoted to the training of students in becoming professional research psychologists.

### Admission Requirements

William & Mary uses an online application system. Application materials consist of GRE scores taken within the past five years, transcripts, and three letters of recommendation. If English is not your first language, your Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores are required and must be sent directly to William & Mary by the Educational Testing Service or IELTS. For full consideration, applications and all supporting materials must be received by February 1. Applications submitted after the program deadline may be evaluated if space is available.

Applicants must have successfully completed courses in experimental/research methods and psychology statistics.

## Program

## Psychological Sciences, M.S.

### Degree Requirements

Required Courses

- PSYC 618 - Professional Development Seminar (2)
- PSYC 619 - Professional Development Seminar (2)
- PSYC 631 - Advanced Statistics I (3)
- PSYC 632 - Research Methods (3)
- PSYC 633 - Advanced Statistics II (3)
- PSYC 685 - Colloquium (variable 0-2)
- PSYC 693 - Introduction to Graduate Research (3 or 6)
- PSYC 700 - Thesis (variable 1-12)
- In addition, students must take four electives from courses numbered 660-674, with at least two numbering 660-668.

### Thesis Requirement

M.S. students must successfully complete and defend a thesis. Successful completion of a thesis will normally involve a two-year effort resulting in the production of a piece of original research that is of publishable quality and acceptable to the thesis committee. Each student must present this work in a

seminar open to all members of the department; the seminar is followed by an oral examination administered by the committee.

### Comprehensive Exam Requirement
Oral defense of the thesis satisfies the exam requirement.

### Language Requirement
There is no foreign language requirement for an M.S. in Psychology.

### Residence Requirement
Students shall be in residence for four semesters.

### Satisfactory Progress
In order to continue in the program and be eligible for an assistantship a student must earn a 3.0 (B) average over all courses taken. Professional behavior, as described in the Ethical Standards of the American Psychological Association, will also be considered in making decisions concerning retention and eligibility for an assistantship. In addition, to remain in good standing and consistent with Arts & Sciences guidelines, all students must make satisfactory progress in their research. Progress in research will be evaluated each semester. Please refer to the Graduate Arts and Sciences Catalog for more information.

To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

### Description of Courses
Unless otherwise noted, all courses are graded using standard grading [A, B, C, D, F] scheme (See Grading and Academic Progress in the section entitled Graduate Regulations) and may not be repeated for credit (See Repeated Courses). For a list of Psychological Sciences (PSYC prefix) courses, see Course Descriptions.

## Public Policy Program

### Public Policy Faculty

Program Director
**John B. Gilmour** Professor of Government and Public Policy (Ph.D., University of California-Berkeley).

Graduate Director
**Elaine S. McBeth** Associate Director and Adjunct Professor of Economics and Public Policy (M.A., Virginia).

Professors
**Berhanu Abegaz** (Economics) (Ph.D., Pennsylvania), **David P. Aday, Jr.** (Sociology) (Ph.D., Kansas), **Lynda L. Butler** (Law) (J.D., Virginia), **Donald E. Campbell** (CSX Professor of Economics and Public Policy) (Ph.D., Princeton), **Neal E. Devins** (Law) (J.D., Vanderbilt), **Davison M. Douglas** (Law) (LL.B. and Ph.D., Yale), **Pamela L. Eddy** (Education) (Ph.D., Michigan State), **C. Lawrence Evans** (Government) (Ph.D., Rochester), **David H. Feldman** (Economics) (Ph.D.,

Duke), **William J. Hausman** (Economics) (Ph.D., Illinois), **James S. Heller** (Law) (J.D., San Diego), **Carl H. Hershner** (Marine Science) (Ph.D., Virginia), **Robert L. Hicks** (Economics) (Ph.D., Maryland) (on leave Spring 2020), **Christopher D. Howard** (Harriman Professor of Government and Public Policy) (Ph.D., Massachusetts Institute of Technology) (on leave 2019-2020), **Eric Kades** (Law) (J.D.,Yale), **Linda A. Malone** (Marshall-Wythe Foundation Professor of Law) (J.D., Duke), **Paul Manna** (Government) (Ph.D., Wisconsin), **John J. McGlennon** (Government) (Ph.D., Johns Hopkins), **Alan J. Meese** (Law) (J.D., Chicago), **Jennifer M. Mellor** (Economics and Director, Schroeder Center for Health Policy ) (Ph.D., Maryland), **Carlisle E. Moody, Jr.** (Economics) (Ph.D., Connecticut), **Roy L. Pearson** (Chancellor Professor of Business Administration) (Ph.D., Virginia), **Alfredo M. Pereira** (Economics) (Ph.D., Stanford), **Ronald H. Rosenberg** (Law) (J.D., University of North Carolina - Chapel Hill), **Martin Schmidt** (Economics) (Ph.D., Colorado State), **Sarah L. Stafford** (Economics, Public Policy and Law) (Ph.D., Johns Hopkins), **Dennis L. Taylor** (A. Marshall Acuff, Jr. Professor of Marine Science) (Ph.D., Wales), and **Michael J. Tierney** (George and Mary Hylton Professor of International Relations) (Ph.D., University of California-San Diego).

Associate Professors
**Dorothy E. Finnegan** (Education) (Ph.D., Pennsylvania State), **John Lopresti** (Economics) (Ph.D., Purdue) (on leave Fall 2019), **Peter McHenry** (Economics) (Ph.D., Yale), **John Parman** (Verkuil Professor of Economics and Public Policy) (Ph.D., Northwestern), and **Ariel Ben-Yishay** (Economics) (Ph.D., University of Maryland).

Assistant Professors
**Brian Beach** (Economics) (University of Pittsburgh), **Christopher Freiman** (Philosophy)(Ph.D., University of Arizona), **Zhao Han** (Economics) (Ph.D., Indiana), **Priya Mukherjee** (Economics) (Ph.D., Cornell University), and **Petr Savelyev** (Economics) (Ph.D., Chicago).

Adjunct Professors
**Christopher Able** (Law) (J.D., William & Mary), and **Christopher Byrne** (Head of Law Research and Instructional Services) (J.D., Harvard).

**Research Professors**
**Carrie Dolan** (Schroeder Health Policy Center) (M.P.H., Tulane), **Harriet O. Duleep** (Center for Public Policy Research) (Ph.D., Massachusetts Institute of Technology), **Troy W. Hartley** (Virginia Sea Grant) (Ph.D., University of Michigan), **Ingo Keilitz** (Center for Public Policy Research) (Ph.D. Kansas State University), and **Louis F. Rossiter** (Center for Public Policy Research) (Ph.D., University of North Carolina - Chapel Hill).

Lecturer
**Alexandra Josse** (Ph.D., Arizona).
Emeritus Professor
**David H. Finifter** (Ph.D., Pittsburgh).

## Public Policy Program

The Public Policy program offers the Master of Public Policy (M.P.P.) degree. The M.P.P. program is a two-year, full-time program with a required internship in the summer between the two academic years. The program prepares students for careers in public service by combining training in quantitative techniques and economic analysis with instruction in the political, legal, and organizational environments in which policy is made and implemented. We also offer several combined degrees (with Law, Business, Education, Marine Science, and Computational Operations Research).

## Admission

For full consideration for admission and financial assistance, applications and all supporting materials, including transcrtips, three letters of recommendation and GRE scores taken within the past five years, must be received by January 15. Applications submitted after the program's deadline may be evaluated if space is available.

To be admitted to the program, a student must demonstrate potential for success through his or her undergraduate record, GRE scores and letters of recommendation. No single undergraduate major is required, but students will be expected to have completed coursework in the principles of economics. In addition, intermediate microeconomics and introductory statistics are strongly recommended. Students whose preparation is deficient may be required to take advanced undergraduate courses before matriculating.

If English is not your first language, your Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores are required and must be sent directly to William & Mary by the Educational Testing Service or IELTS. The TOEFL/IELTS requirement can be waived for applicants who will have received a degree from a college or university in which English is the primary language of instruction.  A transcript required as evidence of successful instruction in English as a primary language.

## Programs

### Masters Degree Programs

- Master of Public Policy, M.P.P.

### Accelerated Degree

- Combined B.A./B.S. and M.P.P.

### Combined Degree

- Business and Public Policy, M.P.P./M.B.A.
- Computational Operations Research, M.S./M.P.P.
- Law and Public Policy, J.D./M.P.P.
- Marine Science and Public Policy, M.S./M.P.P.
- Marine Science and Public Policy, Ph.D./M.P.P.

## Master of Public Policy, M.P.P.

The master of public policy (M.P.P.) degree program is a two-year, full-time, residential program requiring forty-nine hours of course credit.

### Concentrations

In coordination with their advisor, Public Policy graduate students choose one of the following fields to be listed on the final transcript as their concentration area:

- Public Policy Analysis
- International Development and Policy

## Course Requirements

- PUBP 500 - Mathematics for Public Policy Analysis 1
- PUBP 590 - Policy in Practice 1

- PUBP 601 - The Political Environment 3
- PUBP 602 - Quantitative Methods I 3
- PUBP 603 - Quantitative Methods II 3
- PUBP 604 - Microeconomics of Public Policy 3
- PUBP 606 - Benefit-Cost Analysis 3
- or PUBP 605 Macroeconomics for Public Policy and PUBP 651 International Development and Policy
- PUBP 607 - Law and Public Policy 3
- PUBP 609 - Ethics and Public Policy 3
- PUBP 610 - Policy Research Seminar 3
- PUBP 612 - Public Management and Organizational Behavior 3

In addition to the core courses, students in the M.P.P. degree program must take at least one 3-credit or two 2-credit, program-approved, School of Law course(s). Additional elective courses may be taken to fulfill the 49 hour credit requirement. Students choose elective credits based around their chosen area of interest or develop an alternative set of courses developed with the consent of the Director. Areas of emphasis include education policy, environmental policy, health care policy, international trade, regulatory policy, and state and local policy.

## Additional Requirements

**Internship Requirement**
Students are required to complete an internship (at least 10 weeks of full-time employment) in the summer after their first year of the program.

**Thesis Requirement**
There is no thesis requirement for the M.P.P. Instead, all M.P.P. students register for the Policy Research Seminar. In this course, students work in small teams for real-world clients. Like a more traditional thesis, the work done by students is original and demonstrates substantial mastery of the subject in a real-world setting.

**Comprehensive Exam Requirement**
There is no comprehensive exam requirement for the M.P.P.

**Residence Requirement**
Students are required to be in residence for the duration of the program, except during the summer internship.

**Foreign Language Requirement**
There is no foreign language requirement for the M.P.P.

## Academic Status

**Continuance in Program**
After each semester, the student must meet minimum levels of academic progress. The minimum requirements for continuance are as follows:

| After Semester | Cumulative Graduate Degree Credits | Cumulative Q.P.A. |
|---|---|---|
| 1 | 13 | 2.5 |
| 2 | 25 | 2.75 |

| | | |
|---|---|---|
| 3 | 37 | 3.0 |

A student who does not achieve the minimum level of academic progress for continuance or receives a grade below C (quality points = 2.0) in any one of the required core courses will be required to withdraw immediately from the program.

### Satisfactory Progress

To be eligible to graduate, all students must achieve a cumulative grade point average of 3.0 on a 4.0 scale in all courses undertaken for graduate credit at William & Mary after admission to a degree program. No credit toward a degree will be allowed for a course in which a student receives a grade below C (grade point = 2.0).

To continue in the program, a student must make satisfactory progress toward the degree requirements. Satisfactory progress is defined as achieving and maintaining at least a 3.0 Q.P.A. for each semester of graduate study. Students with a Q.P.A. below 3.0 in any semester will automatically be placed on academic probation for the following semester. Students permitted to continue in the program on academic probation must earn a minimum of 12 academic credits and a minimum Q.P.A. of 3.0 during the probationary semester. A student who fails to meet the probationary standard will be required to withdraw from the program.

## Combined B.A./B.S. and M.P.P.

W&M undergraduate students are able to earn both a bachelor's degree and a Master of Public Policy in five years. Candidates interested in this combined degree path must apply to and gain acceptance to the Public Policy Program in their junior year. Acceptance into the combined degree path includes the intention that the graduate committee will recommend regular admission to the graduate program when the baccalaureate degree has been conferred.

With advance written permission from the program's graduate committee, up to nine graduate credits with a grade of C or higher taken by students in the B.A./B.S./M.P.P. combined degree path may be used to satisfy both graduate and undergraduate degree requirements. Students in the combined degree path will take additional graduate public policy classes during their fourth year; these classes will count exclusively toward the M.P.P. degree requirements.

Students may also earn up to 9 graduate credits through demonstrating competency in the following first-year M.P.P. classes: PUBP 601 - The Political Environment, PUBP 602 - Quantitative Methods I, and PUBP 603 - Quantitative Methods II. Competency will be demonstrated by passing the final exam of these courses with a grade of B or higher. Students who successfully demonstrate competency in these courses will receive course credit and a grade of P.

### M.P.P. Degree Requirements

The Master of Public Policy degree program is a two-year, full-time, residential program requiring forty-nine hours of course credit.

The following core courses are required:

**Course Requirements**

- PUBP 500 - Mathematics for Public Policy Analysis 1
- PUBP 590 - Policy in Practice 1
- PUBP 601 - The Political Environment 3

- PUBP 602 - Quantitative Methods I 3
- PUBP 603 - Quantitative Methods II 3
- PUBP 604 - Microeconomics of Public Policy 3
- PUBP 606 - Benefit-Cost Analysis 3
- or PUBP 605 Macroeconomics for Public Policy and PUBP 651 International Development and Policy
- PUBP 607 - Law and Public Policy 3
- PUBP 609 - Ethics and Public Policy 3
- PUBP 610 - Policy Research Seminar 3
- PUBP 612 - Public Management and Organizational Behavior 3

In addition to the core courses, students in the M.P.P. degree program are required to take at least one 3-credit or two 2-credit, program-approved, School of Law course(s). Additional elective courses must be taken to fulfill the 49 hour credit requirement. Students choose elective credits based around their chosen area of interest or develop an alternative set of courses developed with the consent of the Director. Areas of emphasis include education policy, environmental policy, health care policy, international trade, regulatory policy, and state and local policy.

## Business and Public Policy, M.P.P./M.B.A.

A combined program is available in which the student may obtain both a Master of Business Administration degree and a Master of Public Policy degree in three years, instead of the four years that would be required if each were pursued separately.

Candidates interested in this combined degree program must apply to and gain acceptance by both the Mason School of Business and the Public Policy Program, and fulfill the requirements of both.

See the Raymond A. Mason School of Business Catalog section for the M.B.A. requirements.

### M.P.P. Degree Requirements

Students accepted for the M.B.A./M.P.P. degree program are required to have thirty-seven hours of M.P.P. course credit.

The following core courses are required:

### Course Requirements

- PUBP 500 - Mathematics for Public Policy Analysis 1
- PUBP 590 - Policy in Practice 1
- PUBP 601 - The Political Environment 3
- PUBP 602 - Quantitative Methods I 3
- PUBP 603 - Quantitative Methods II 3
- PUBP 604 - Microeconomics of Public Policy 3
- PUBP 606 - Benefit-Cost Analysis 3
- or PUBP 605 Macroeconomics for Public Policy and PUBP 651 International Development and Policy
- PUBP 607 - Law and Public Policy 3
- PUBP 609 - Ethics and Public Policy 3
- PUBP 610 - Policy Research Seminar 3
- PUBP 612 - Public Management and Organizational Behavior 3

In addition to the core courses, students in the M.B.A./M.P.P. degree program are required to take at least one 3-credit or two 2-credit Program approved, School of Law course(s). Students choose elective credits based around their chosen area of emphasis or develop an alternative set of courses developed with the consent of the Director.

Students who have completed the first year of the M.B.A. curriculum prior to starting the M.P.P. coursework, will be exempt from PUBP 500, PUBP 602 and PUBP 604, but will still be required to complete a total of 37 credit hours of approved Public Policy courses.

## Additional Requirements

**Internship Requirement**
Students are required to complete an internship (at least 10 weeks of full-time employment) in the summer after their first year of the program.

**Thesis Requirement**
There is no thesis requirement for the M.P.P. Instead, all M.P.P. students register for the Policy Research Seminar. In this course, students work in small teams for real-world clients. Like a more traditional thesis, the work done by students is original and demonstrates substantial mastery of the subject in a real-world setting.

**Comprehensive Exam Requirement**
There is no comprehensive exam requirement for the M.P.P.

**Residence Requirement**
Students are required to be in residence for the duration of the program, except during the summer internship.

**Foreign Language Requirement**
There is no foreign language requirement for the M.P.P.

## Academic Status

**Continuance in Program**
After each semester, the student must meet minimum levels of academic progress. The minimum requirements for continuance are as follows:

| After Semester | Cumulative Graduate Degree Credits | Cumulative Q.P.A. |
|---|---|---|
| 1 | 13 | 2.5 |
| 2 | 25 | 2.75 |
| 3 | 37 | 3.0 |

A student who does not achieve the minimum level of academic progress for continuance or receives a grade below C (quality points = 2.0) in any one of the required core courses will be required to withdraw immediately from the program.

## Satisfactory Progress

In order to graduate, M.P.P. students must have completed all coursework in the program with a quality point average (Q.P.A.) of 3.0. To continue in the program, a student must make satisfactory progress

toward the degree requirements. Satisfactory progress is defined as achieving and maintaining at least a 3.0 Q.P.A. for each semester of graduate study. Students with a Q.P.A. below 3.0 in any semester will automatically be placed on academic probation for the following semester. Students permitted to continue in the program on academic probation must earn a minimum of 12 academic credits and a minimum Q.P.A. of 3.0 during the probationary semester. A student who fails to meet the probationary standard will be required to withdraw from the program.

## Computational Operations Research, M.S./M.P.P.

A combined Master's in Computer Science with a specialization in Computational Operations Research and Master's in Public Policy Program is available. Following this track, the student may obtain both degrees in three years, instead of the four that would be required if each degree were pursued separately.

Candidates interested in this combined degree program must apply to and gain acceptance by both the Department of Computer Science and the Public Policy Program and fulfill the requirements of both. See the Computer Science catalog listing for the M.S. requirements.

### Degree Requirements

Students accepted for the M.S./M.P.P. degree program are required to have thirty-seven hours of M.P.P. course credit.

The following core courses are required:

### Course Requirements

- PUBP 500 - Mathematics for Public Policy Analysis 1
- PUBP 590 - Policy in Practice 1
- PUBP 601 - The Political Environment 3
- PUBP 602 - Quantitative Methods I 3
- PUBP 603 - Quantitative Methods II 3
- PUBP 604 - Microeconomics of Public Policy 3
- PUBP 606 - Benefit-Cost Analysis 3
- or PUBP 605 Macroeconomics for Public Policy and PUBP 651 International Development and Policy
- PUBP 607 - Law and Public Policy 3
- PUBP 609 - Ethics and Public Policy 3
- PUBP 610 - Policy Research Seminar 3
- PUBP 612 - Public Management and Organizational Behavior 3

In addition to the core courses, students in the M.S./M.P.P. degree program are required to take at least one 3-credit or two 2-credit Program approved, School of Law course(s). Students choose elective credits based around their chosen area of emphasis or develop an alternative set of courses developed with the consent of the Director.

Students who have completed the first year of the COR curriculum prior to starting the M.P.P. coursework, will be exempt from PUBP 500, and PUBP 602, but will still be required to complete a total of 37 credit hours of approved Public Policy courses.

### Additional Requirements

**Internship Requirement**

Students are required to complete an internship (at least 10 weeks of full-time employment) in the summer after their first year of the program.

**Thesis Requirement**
There is no thesis requirement for the M.P.P. Instead, all M.P.P. students register for the Policy Research Seminar. In this course, students work in small teams for real-world clients. Like a more traditional thesis, the work done by students is original and demonstrates substantial mastery of the subject in a real-world setting.

**Comprehensive Exam Requirement**
There is no comprehensive exam requirement for the M.P.P.

**Residence Requirement**
Students are required to be in residence for the duration of the program, except during the summer internship.

**Foreign Language Requirement**
There is no foreign language requirement for the M.P.P.

## Academic Status

**Continuance in Program**
After each semester, the student must meet minimum levels of academic progress. The minimum requirements for continuance are as follows:

| After Semester | Cumulative Graduate Degree Credits | Cumulative Q.P.A. |
|---|---|---|
| 1 | 13 | 2.5 |
| 2 | 25 | 2.75 |
| 3 | 37 | 3.0 |

A student who does not achieve the minimum level of academic progress for continuance or receives a grade below C (quality points = 2.0) in any one of the required core courses will be required to withdraw immediately from the program.

### Satisfactory Progress
In order to graduate, M.P.P. students must have completed all coursework in the program with a quality point average (Q.P.A.) of 3.0. To continue in the program, a student must make satisfactory progress toward the degree requirements. Satisfactory progress is defined as achieving and maintaining at least a 3.0 Q.P.A. for each semester of graduate study. Students with a Q.P.A. below 3.0 in any semester will automatically be placed on academic probation for the following semester. Students permitted to continue in the program on academic probation must earn a minimum of 12 academic credits and a minimum Q.P.A. of 3.0 during the probationary semester. A student who fails to meet the probationary standard will be required to withdraw from the program.

## Law and Public Policy, J.D./M.P.P.

A combined law and public policy program is available in which the student may obtain both a J.D. degree and a master's degree (M.P.P.) in four years, instead of the five years that would be required if each degree were pursued separately.

Candidates interested in this combined degree program must apply to and gain acceptance by both the School of Law and the Public Policy Program and must fulfill the requirements of both programs. See the School of Law's Catalog entry for a description of the Juris Doctor, JD.

## M.P.P. Degree Requirements

Students accepted for the J.D./M.P.P. degree program are required to have thirty-seven hours of M.P.P. course credit.

The following core courses are required:

## Course Requirements

- PUBP 500 - Mathematics for Public Policy Analysis 1
- PUBP 590 - Policy in Practice 1
- PUBP 601 - The Political Environment 3
- PUBP 602 - Quantitative Methods I 3
- PUBP 603 - Quantitative Methods II 3
- PUBP 604 - Microeconomics of Public Policy 3
- PUBP 606 - Benefit-Cost Analysis 3
- or PUBP 605 Macroeconomics for Public Policy and PUBP 651 International Development and Policy
- PUBP 607 - Law and Public Policy 3
- PUBP 609 - Ethics and Public Policy 3
- PUBP 610 - Policy Research Seminar 3
- PUBP 612 - Public Management and Organizational Behavior 3

In addition to the core courses, students in the J.D./M.P.P. degree program are required to take at least one 3-credit or two 2-credit Program approved, School of Law course(s). Additional electives must be taken to fulfill the 37 hour credit requirement. Students choose elective credits based around their chosen area of emphasis or develop an alternative set of courses developed with the consent of the Director.

Students who have completed the first year of the J.D. curriculum prior to starting the M.P.P. coursework, will be exempt from PUBP 607, but will still be required to complete a total of 37 credit hours of approved Public Policy courses.

## Additional Requirements

### Internship Requirement

Students are required to complete an internship (at least 10 weeks of full-time employment) in the summer after their first year of the program.

### Thesis Requirement

There is no thesis requirement for the M.P.P. Instead, all M.P.P. students register for the Policy Research Seminar. In this course, students work in small teams for real-world clients. Like a more traditional thesis, the work done by students is original and demonstrates substantial mastery of the subject in a real-world setting.

**Comprehensive Exam Requirement**
There is no comprehensive exam requirement for the M.P.P.

**Residence Requirement**
Students are required to be in residence for the duration of the program, except during the summer internship.

**Foreign Language Requirement**
There is no foreign language requirement for the M.P.P.

### Academic Status

**Continuance in Program**
After each semester, the student must meet minimum levels of academic progress. The minimum requirements for continuance are as follows:

| After Semester | Cumulative Graduate Degree Credits | Cumulative Q.P.A. |
|---|---|---|
| 1 | 13 | 2.5 |
| 2 | 25 | 2.75 |
| 3 | 37 | 3.0 |

A student who does not achieve the minimum level of academic progress for continuance or receives a grade below C (quality points = 2.0) in any one of the required core courses will be required to withdraw immediately from the program.

### Satisfactory Progress
In order to graduate, M.P.P. students must have completed all coursework in the program with a quality point average (Q.P.A.) of 3.0. To continue in the program, a student must make satisfactory progress toward the degree requirements. Satisfactory progress is defined as achieving and maintaining at least a 3.0 Q.P.A. for each semester of graduate study. Students with a Q.P.A. below 3.0 in any semester will automatically be placed on academic probation for the following semester. Students permitted to continue in the program on academic probation must earn a minimum of 12 academic credits and a minimum Q.P.A. of 3.0 during the probationary semester. A student who fails to meet the probationary standard will be required to withdraw from the program.

## Marine Science and Public Policy, M.S./M.P.P.

A combined Marine Science and Public Policy program is available in which the student may obtain both an M.S. in Marine Science and an M.P.P. degree. The M.S. in Marine Science and the M.P.P. degree may be completed in a reduced amount of time compared to pursuing the degrees independently.

Candidates interested in these combination degree programs must apply to and gain acceptance by both the School of Marine Science and the Public Policy Program and must fulfill the requirements of both programs. Consult the School of Marine Science's Catalog listing for a description of the M.S. degree requirements.

### M.P.P. Degree Requirements

Students accepted for the M.S./M.P.P. degree program are required to have thirty-seven hours of M.P.P. course credit.

The following core courses are required:

## Course Requirements

- PUBP 500 - Mathematics for Public Policy Analysis 1
- PUBP 590 - Policy in Practice 1
- PUBP 601 - The Political Environment 3
- PUBP 602 - Quantitative Methods I 3
- PUBP 603 - Quantitative Methods II 3
- PUBP 604 - Microeconomics of Public Policy 3
- PUBP 606 - Benefit-Cost Analysis 3
- or PUBP 605 Macroeconomics for Public Policy and PUBP 651 International Development and Policy
- PUBP 607 - Law and Public Policy 3
- PUBP 609 - Ethics and Public Policy 3
- PUBP 610 - Policy Research Seminar 3
- PUBP 612 - Public Management and Organizational Behavior 3

In addition to the core courses, students in the M.S./M.P.P. degree program are required to take at least one 3-credit or two 2-credit Program approved, School of Law course(s). Students choose elective credits based around their chosen area of emphasis or develop an alternative set of courses developed with the consent of the Director.

Students who have completed the first year of the Marine Science curriculum prior to starting the MPP coursework, will be exempt from PUBP 500, and PUBP 602, but will still be required to complete a total of 37 credit hours of approved Public Policy courses.

## Additional Requirements

**Internship Requirement**
Students are required to complete an internship (at least 10 weeks of full-time employment) in the summer after their first year of the program.

**Thesis Requirement**
There is no thesis requirement for the M.P.P. Instead, all M.P.P. students register for the Policy Research Seminar. In this course, students work in small teams for real-world clients. Like a more traditional thesis, the work done by students is original and demonstrates substantial mastery of the subject in a real-world setting.

**Comprehensive Exam Requirement**
There is no comprehensive exam requirement for the M.P.P.

**Residence Requirement**
Students are required to be in residence for the duration of the program, except during the summer internship.

**Foreign Language Requirement**
There is no foreign language requirement for the M.P.P.

## Academic Status

### Continuance in Program

After each semester, the student must meet minimum levels of academic progress. The minimum requirements for continuance are as follows:

| After Semester | Cumulative Graduate Degree Credits | Cumulative Q.P.A. |
|---|---|---|
| 1 | 13 | 2.5 |
| 2 | 25 | 2.75 |
| 3 | 37 | 3.0 |

A student who does not achieve the minimum level of academic progress for continuance or receives a grade below C (quality points = 2.0) in any one of the required core courses will be required to withdraw immediately from the program.

### Satisfactory Progress

In order to graduate, M.P.P. students must have completed all coursework in the program with a quality point average (Q.P.A.) of 3.0. To continue in the program, a student must make satisfactory progress toward the degree requirements. Satisfactory progress is defined as achieving and maintaining at least a 3.0 Q.P.A. for each semester of graduate study. Students with a Q.P.A. below 3.0 in any semester will automatically be placed on academic probation for the following semester. Students permitted to continue in the program on academic probation must earn a minimum of 12 academic credits and a minimum Q.P.A. of 3.0 during the probationary semester. A student who fails to meet the probationary standard will be required to withdraw from the program.

## Marine Science and Public Policy, Ph.D./M.P.P.

A combined Marine Science and Public Policy program is available in which the student may obtain both a Ph.D. in Marine Science and an M.P.P degree.

Candidates interested in these combination degree programs must apply to and gain acceptance by both the School of Marine Science and the Public Policy Program and fulfill the requirements of both programs. See the School of Marine Science's Catalog Entry for the description of the Ph.D. requirements.

### M.P.P. Degree Requirements

Students accepted for the Ph.D./M.P.P. degree program are required to have thirty-seven hours of M.P.P. course credit.

The following core courses are required:

### Course Requirements

- PUBP 500 - Mathematics for Public Policy Analysis 1
- PUBP 590 - Policy in Practice 1
- PUBP 601 - The Political Environment 3
- PUBP 602 - Quantitative Methods I 3
- PUBP 603 - Quantitative Methods II 3

- PUBP 604 - Microeconomics of Public Policy 3
- PUBP 606 - Benefit-Cost Analysis 3
- or PUBP 605 Macroeconomics for Public Policy and PUBP 651 International Development and Policy
- PUBP 607 - Law and Public Policy 3
- PUBP 609 - Ethics and Public Policy 3
- PUBP 610 - Policy Research Seminar 3
- PUBP 612 - Public Management and Organizational Behavior 3

In addition to the core courses, students in the Ph.D./M.P.P. degree program are required to take at least one 3-credit or two 2-credit Program approved, School of Law course(s). Students choose elective credits based around their chosen area of emphasis or develop an alternative set of courses developed with the consent of the Director.

Students who have completed the first year of the Marine Science curriculum prior to starting the MPP coursework, will be exempt from PUBP 500, and PUBP 602, but will still be required to complete a total of 37 credit hours of approved Public Policy courses.

## Additional Requirements

**Internship Requirement**
Students are required to complete an internship (at least 10 weeks of full-time employment) in the summer after their first year of the program.

**Thesis Requirement**
There is no thesis requirement for the M.P.P. Instead, all M.P.P. students register for the Policy Research Seminar. In this course, students work in small teams for real-world clients. Like a more traditional thesis, the work done by students is original and demonstrates substantial mastery of the subject in a real-world setting.

**Comprehensive Exam Requirement**
There is no comprehensive exam requirement for the M.P.P.

**Residence Requirement**
Students are required to be in residence for the duration of the program, except during the summer internship.

**Foreign Language Requirement**
There is no foreign language requirement for the M.P.P.

## Academic Status

**Continuance in Program**
After each semester, the student must meet minimum levels of academic progress. The minimum requirements for continuance are as follows:

| After Semester | Cumulative Graduate Degree Credits | Cumulative Q.P.A. |
|---|---|---|
| 1 | 13 | 2.5 |
| 2 | 25 | 2.75 |
| 3 | 37 | 3.0 |

A student who does not achieve the minimum level of academic progress for continuance or receives a grade below C (quality points = 2.0) in any one of the required core courses will be required to withdraw immediately from the program.

### Satisfactory Progress

In order to graduate, M.P.P. students must have completed all coursework in the program with a quality point average (Q.P.A.) of 3.0. To continue in the program, a student must make satisfactory progress toward the degree requirements. Satisfactory progress is defined as achieving and maintaining at least a 3.0 Q.P.A. for each semester of graduate study. Students with a Q.P.A. below 3.0 in any semester will automatically be placed on academic probation for the following semester. Students permitted to continue in the program on academic probation must earn a minimum of 12 academic credits and a minimum Q.P.A. of 3.0 during the probationary semester. A student who fails to meet the probationary standard will be required to withdraw from the program.

### Description of Courses

Unless otherwise noted, all courses are graded using standard grading [A, B, C, D, F] scheme (See Grading and Academic Progress in the section entitled Graduate Regulations) and may not be repeated for credit (See Repeated Courses). For a list of Public Policy (**PUBP** prefix) courses, see Course Descriptions.

## GIS Certificate

The Certificate in Geographic Information Science provides students with a post-baccalaureate level academic credential in geospatial technologies including geographic information systems, remote sensing, global positioning systems, and more. This program is designed for individuals who wish to enhance current knowledge and skills they may be using professionally, or want to pursue a fuller understanding of professional practice applying geospatial technologies to increase their competitiveness, or may not yet be ready to commit to a full graduate program.

The Certificate can be completed in one year full-time, but may be completed on a full-time or part-time basis. This certificate is not available to current William & Mary undergraduate students. The Certificate in Geographic Information Science program requires a minimum of 15 credit hours of specified coursework.

Individuals seeking admission into the GIS Certificate Program must have completed a Bachelor's degree prior to their first semester enrolled as a Certificate program student. The Certificate program is administered through the Center for Geospatial Analysis, the intellectual nexus for geospatial education and research at William & Mary.

The requirements and restrictions unique to the GIS Certificate are spelled out here; otherwise, GIS Certificate students have access to the services and are governed by the policies spelled out in the Arts & Sciences Section of this Catalog.

### Admission

The Post-Baccalaureate GIS Certificate Program has rolling admissions. The Center for Geospatial Analysis welcomes applications for admissions in the following semester with decision deadlines of October 1 for Spring course enrollments, April 1 for summer course enrollments, and July 1 for fall

course enrollments. You will be notified of the decision about one month after we have received your application.

Individuals who wish to apply to the program should submit the following materials to the GIS Certificate Coordinator:

- **Application.** A completed application for the GIS Certificate Program.
- **Transcripts.** Official transcripts from all colleges or universities you have attended, with date of actual or expected degree(s) clearly indicated. This should be sent to the GIS Certificate Coordinator at the address found in the application.
- **Application to Determine Physical Residency and In-State Tuition.** All appplicants must complete and submit the Application to Determine Physical Residency and In-State Tuition form.
- **Letter of Recommendation.** A minimum of one letter of recommendation from an employer or professor. This must be sent directly to the GIS Certificate Coordinator at the address found in the application.
- **A Resume or CV (curriculum vitae) and Personal Statement.** A resume or CV must be provided stating relevant work experience. If the applicant has no geospatial work experience, then the applicant must include a personal statement, not more than one single-spaced page, explaining their interest in, or prior experience with GIS and other geospatial technologies, and how this certificate program will meet their personal or professional goals.
- **Application Fee.** See application for submission address and fee amount.

International applicants needing F-1 student visa sponsorship will not be enrolled in the program until the university has received approval from the Department of Homeland Security for inclusion of the program on its I-17.

Applicants whose first language is not English must be able to demonstrate English language proficiency through one of the following ways:

- A test of English as a Foreign Language (TOEFL) minimum composite score of 100 for the Internet Based Test (IBT) or 600 for the paper-based score; or an International English Language Testing System (IELTS) score minimum of 6.5 on the academic exam.
    - In cases where a test score is within 5% of the above scores, a student may be admitted pending a successful oral interview with the GIS Certificate Coordinator.
- Successful completion of undergraduate or graduate study in a school where English is the language of instruction.

## Program of Study

The courses for the GIS Certificate Program are as follows (all courses are 3 credit hours, unless otherwise noted) :

**Fundamentals and Foundations of Geospatial Technology**

- GIS 501: Fundamentals of Geographic Information Science and Analysis (required)
- GIS 505: Geovisualization & Cartographic Design Techniques (required)
- GIS 510: Introduction to Remote Sensed Imagery and Analysis (required)

**Advanced Geospatial Topics/Discipline Uses of Geospatial Technology**

- GIS 520: Advanced GIS Analysis and Programming (required)

- GIS 550: Independent Research in GIS (1-3 credits variable) (optional)
- GIS 590: Topics: Geospatial Technologies GIS (1-4 credits) (optional)

Courses of interest related to the professional work or career interest of the student at the 400/500-level in departments across campus, may be submitted for review with the GIS Certificate Coordinator. For example, a wildlife biologist enrolled in the Certificate program may wish to take a 400-level course in Biology such as Ornithology. This request would be reviewed for its relevancy to the work of the individual and the applicability to the Certificate program.

Students who wish to substitute a different 400/500 level GIS course for one of those listed below must consult with the GIS Certificate Coordinator in advance; otherwise the course will not count towards the Certificate. No transfer credit is allowed for courses taken outside of William & Mary.

Students who have taken INTR 204/GIS 201 as an undergraduate at W&M cannot transfer those hours into the Certificate but may be able to place out of the GIS 501 through a skills and knowledge demonstration and substitute another course to meet the credit hour requirement. Students in this situation should consult with the GIS Certificate Coordinator.

**Enrollment Expectations**

GIS Certificate Students are expected to enroll in at least 1 course per regular semester; otherwise, they will not be considered as making satisfactory progress in their certificate program.

**Continuance Requirement**

To continue as a student in the GIS certificate program, you will need to meet these minimal requirements:

| *Cumulative Course Credits* | *Cumulative G.P.A.* |
|---|---|
| 1 - 6 | 2.50 |
| 7 – 12 | 2.75 |
| 13 – 18 | 3.00 |

## Tuition and Fees

This post-baccalaureate GIS certificate program charges students at a tuition rate based on enrollment in this program. The Tuition and Fees do not include room & board, books, travel, and incidentals. The per-credit hour rate for the GIS Certificate applies to all students who enroll in the GIS Certificate program, regardless of residency status. Tuition and fees are due and payable by the due date as established by the Bursar's Office. The cost of the program will be based on number of certificate courses taken per semester and is calculated as a fee. After the Add/Drop period tuition and fees will be non-refundable.

The 2019-2020 per-credit hour rate for the GIS Certificate is $560.00. A majority of the courses will be three credit hours and the program may be completed with a minimum of 15 -credit hours.

Financial Aid is not available for GIS Certificate Program students.

There are a number of William & Mary services available for students enrolling in the GIS Certificate program:

- Swem Library
- Dean of Students Office

- Student Accessibility Services
- Parking & Transportation (requires a purchase of permit)
- Writing Resources Center
- Cohen Career Center

There are William & Mary services not covered in the GIS Certificate Program fees if you are not also a full-time student (paying full tuition and fees); these include:

- Free admission to Athletic Events; you are welcome to attend but there will be a minimal cost.
- Campus Recreation Center; certificate students can purchase a membership for regular access.
- University Sponsored Events; many events are open to the public or may be available at a minimal cost.
- Student clubs and organizations.

**GIS Courses and Course Descriptions**

- GIS 501 - Fundamentals of GIS (3)
- GIS 505 - Geovisualization & Cartographic Design Techniques (3)
- GIS 510 - Introduction to Remote Sensed Imagery and Analysis (3)
- GIS 520 - Advanced GIS Analysis and Programming (3)
- GIS 550 - Independent Research in GIS (1-3)
- GIS 590 - Topics: Geospatial Technologies GIS (1-4)

## Graduate Center Programs

The mission of the Arts & Sciences Graduate Center is to support and promote the culture of advanced study at William & Mary. Through workshops, seminars, and short courses, the Graduate Center provides students with opportunities to develop the professional skills needed to take charge of their own careers. Student participation in Graduate Center programs is voluntary.

The topics and times of workshops and seminars vary each semester. An updated list of workshops and seminars can be found at https://www.wm.edu/as/graduate/graduate-center/index.php. The Graduate Center's short courses typically meet for 1-2 hours of instruction each week in the late afternoon or early evening to avoid scheduling conflicts with students' traditional disciplinary courses. These graduate courses (GRAD) are zero credit, and are offered at no cost to the student or home department in Graduate Arts and Sciences. The Graduate Center's course descriptions are listed below. Please search the Dynamic Schedule for current course offerings. All GRAD courses may be repeated.

**GRAD Courses and Course Descriptions**

- GRAD 501 - English Conversation and Pronunciation (0 credit)
- GRAD 502 - Effective Conversation (0 credit)
- GRAD 503 - Extended Discussion and Active Listening Skills (0 credit)
- GRAD 505 - Academic Public Speaking (0 credit)
- GRAD 510 - Science Writing Retreat (0 credit)
- GRAD 512 - Computing for the Humanities (0 credit)
- GRAD 514 - Tools for Engaged Humanists (0 credit)
- GRAD 520 - Academic Writing (0 credit)
- GRAD 522 - Practicum in Mentoring Academic Writing (0 credit)
- GRAD 529 - Provost Dissertation Writing Workshop (0 credit)

- GRAD 530 - Dissertation Writing (0 credit)
- GRAD 540 - Special Topics in Professional Development (0 credit)
- GRAD 550 - College Teaching (0 credit)

## Additional Graduate Courses

Some departments at William & Mary offer courses for graduate students even though these departments do not themselves offer a graduate degree. These courses are listed in this section.

**Courses and Course Descriptions**

- MATH 508 - Advanced Linear Algebra 3
- MATH 510 - Special Topics in Mathematics 1-3
- MATH 513 - Introduction to Numerical Analysis I 3
- MATH 514 - Introduction to Numerical Analysis II 3
- MATH 524 - Operations Research: Stochastic Models 3
- MATH 551 - Probability 3
- MATH 552 - Mathematical Statistics 3
- MATH 559 - Topics in Statistics 1-3

# School of Education



## Accreditation

Professional education programs in the School of Education are accredited by the Council for the Accreditation of Educator Preparation and the Virginia Department of Education. The Ed.S. School Psychology program at William & Mary is accredited by the National Association of School Psychologists (NASP). The Counseling and Counselor Education programs are accredited by CACREP, The Council for Accreditation of Counseling and Related Educational Programs.

## Academic Departments

The programs of study for each program can be found on the corresponding department page.

**Curriculum & Instruction (C&I)**

C&I offers M.A.Ed. programs in Curriculum and Instruction that include concentrations in Elementary Education, Secondary Education; Special Education, and English as a Second Language (ESL) Bilingual Education.

**Educational Policy, Planning & Leadership (EPPL)**

EPPL offers M.Ed. programs in Educational Leadership -PK-12 Administration and Higher Education Administration; doctoral programs with concentrations in K-12 Leadership, Higher Education Administration, Curriculum & Learning Design, Executive K-12 Administration, Executive Gifted Education, Executive Higher Education, and Executive School Psychology.

**School Psychology & Counselor Education (SPACE)**

SPACE offers M.Ed. programs in Counseling (School, Couples, Marriage & Family, Clinical Mental Health, and Clinical Mental Health and Addictions); School Psychology with M.Ed. and Ed.S. options; and a Ph.D. program in Counselor Education. In addition, graduate students can pursue an online M.Ed. in Clinical Mental Health Counseling, School Counseling or Military and Veteran's counseling.

## Degrees Offered

### Master's Degree Programs

Master's degree programs in the School of Education are designed for students who wish to pursue systematic professional study in education beyond the bachelor's degree. Both a Master of Arts in Education degree and a Master of Education degree are awarded.

The Master of Education degree is awarded upon successful completion of programs in Counseling, Educational Leadership and School Psychology.

The Master of Arts in Education degree is awarded upon successful completion of programs in Teacher Education.

The following academic policies apply to all master's degree programs in the School of Education.

- Each master's degree program includes a specialized culminating activity that is appropriate to the content of the program.
- Students whose programs include Thesis, Project, Seminar in Education, or Master's Degree Project as the culminating activity may not register for this final three-hour course in their programs unless they have a grade-point average of 3.0 (B) or higher.
- Students have 6 years after matriculation to complete the degree.

### Educational Specialist Program

The Educational Specialist degree is the entry-level credential in school psychology. To be recommended for licensure to the Virginia Department of Education, students must complete all program requirements. The total program must be completed within four years after admission. The Ed.S. program involves an additional thirty-nine hours of coursework, including a full-time year-long internship for twelve semester hours.

### Doctoral Degree Programs

Programs in the School of Education that lead to the degree of Doctor of Education (Ed.D.) or a Doctor of Philosophy (Ph.D.) are Counselor Education and Educational Policy, Planning and Leadership (EPPL). Students who desire licensure while pursuing the doctorate should contact the Department Chair upon enrollment. Students have seven (7) years to complete their degree program after matriculation.

#### Doctor of Education Degree

The purpose of the Doctor of Education degree program is to provide educators, scholars, and professionals in other human service fields with a broad and systematic understanding of the structure and process of education. Graduates of the Ed.D. program should possess in-depth knowledge of relevant educational theory and scholarship and the skills necessary to conduct research and evaluation and to apply research findings in an informed and critical manner. The ultimate goal of the Doctor of Education degree program is to prepare professionals with the commitment and competence necessary to enhance educational policy and practice in a variety of settings ranging from the individual classroom to administrative offices and government agencies.

#### Doctor of Philosophy Degree

The purpose of the Doctor of Philosophy degree program is to develop scholars to conduct original research and interpret and communicate the results of such research to various constituencies concerned about education and other human services. The Ph.D. degree program prepares scholars for service as college and university professors, educational administrators, government or foundation officials, or independent researchers and practitioners.

## About the SOE

- History
- Vision & Mission
- Administration and Faculty

## History

Excellent teaching is at the historic heart of William & Mary. The original charter of 1693 called for creation of a "certain place of study" for the youth of Virginia to be "educated in good letters and manners." To fulfill this mission in the colonial era, William & Mary provided a flourishing grammar school along with its undergraduate and advanced courses of study. Teaching and learning at all levels were interdependent, as the first Master of the Grammar School also served as Professor of Humanities. Similarly, Hugh Jones, legendary professor of mathematics and philosophy, gained fame for pioneering instructional methods for teaching English grammar. And in the 1690s William & Mary rolls included a teacher from Maryland who sought assistance to improve his professional skills. This was the first example of "student teaching" in America.

William & Mary's involvement in teaching from primary through advanced studies is well illustrated by the education of Thomas Jefferson. His first school master, James Maury, was a William & Mary alumnus; later, as an undergraduate, Jefferson worked closely with mathematics professor William Small, of whose teaching he fondly recalled as, "It was my great good fortune and what probably fixed the destinies of my life. ..." Finally, Jefferson's memoirs attest to the inspired, influential teaching of Professor George Wythe, with whom he read law.

William & Mary enhanced its formal role in the preparation of future educators starting in 1888 when the Virginia General Assembly appropriated substantial annual grants for the express purpose of funding William & Mary to combine liberal education with certification of teachers for the Commonwealth's emerging public school system. This support was reaffirmed in 1906 when the Commonwealth stated that one of its primary objectives in assuming responsibility for William & Mary as a state institution was to insure a source of well-educated and trained public school teachers throughout Virginia. In subsequent decades, William & Mary's claim to excellence in professional education escalated due to innovations in two areas: its programs for educating school principals and superintendents; and the founding of the Matthew Whaley School, one of the most influential laboratory schools in the nation.

The School of Education was created as a distinct entity within the academic structure in 1961. During ensuing years, the traditional commitment to undergraduate education for teachers has been supplemented by a wide range of graduate degree programs, including conferral of the first doctoral degree in Education in 1972. In the past decade the School of Education has become an institutional leader in advanced studies, as it has accounted for nearly a third of the master's degrees and over half of the doctoral degrees awarded at William & Mary each year. Today, the School of Education continues to take pride in its fusion of liberal education and professional studies at both the undergraduate and graduate levels.

## Vision & Mission

### Our Vision

To be a model of excellence for solving complex educational problems through innovative and participatory teaching, scholarship, and community engagement.

### Our Mission

We transform students, schools, and communities through professional preparation, collaborative partnerships, and the translation of research into action.

### We Value

**Innovative Teaching and Learning**

Providing innovative and rigorous curricula through outstanding instruction and clinical supervision-

We will:

- Cultivate transformative leaders
- Model teaching excellence and innovation
- Demonstrate content area expertise
- Address local and global challenges in education through offering traditional and non-traditional learning experiences
- Incorporate multiple perspectives in curricular materials

## Influential Research

Engaging in rigorous, ongoing, and actionable research that impacts educational practice and policy-

We will:

- Publish actionable research consistently
- Showcase faculty research in School of Education communications
- Develop school, community, and university research partnerships, locally and globally
- Pursue high impact grant and contract opportunities
- Disseminate research through conferences and outreach opportunities

**Community Engagement**

Fostering collaborative educational partnerships through research, professional development, and outreach services-

We will:

- Collaborate with community partners to identify educational needs
- Draw on research and practice to develop and implement innovative solutions
- Empower the School of Education community to design and deliver responsive professional development
- Provide an excellent facility and responsive support for our outreach efforts
- Leverage School of Education expertise for William & Mary and larger community for discussing, challenging, and influencing educational policies and programs

**Cultural Competence and Diversity**

Preparing culturally responsive, ethical, reflective, and collaborative leaders to transform schools and communities-

We will:

- Respect ourselves and others
- Be open-minded, collaborative, and inclusive
- Promote and model cultural competencies
- Treat everyone with dignity
- Strengthen and expand our diversity

**Positive Climate**

Supporting a safe, caring, and thriving community-

We will:

- Demonstrate caring, open, and honest communication
- Treat others with civility and respect
- Foster faculty and staff enrichment and learning

- Behave ethically
- Confront bullying, harassment, and intimidating and threatening behaviors

**Clear and Supportive Organizational Structures**
Creating and maintaining administrative, organizational, and governance structures that support our vision, mission, and values-

We will:
- Use our vision, mission, and values to set priorities
- Challenge behavior inconsistent with our vision, mission, and values
- Monitor the implementation of the strategic plan
- Advocate vigorously for the School of Education
- Engage in continuous improvement

*Approved by the faculty on March 18, 2015*

## SOE: Administration & Faculty



### Administrative Staff

Spencer G. Niles (2013), Dean and Professor-B.S., Bloomsburg University; M.Ed., Lehigh University; Ph.D., The Pennsylvania State University.

Leslie W. Grant (2012), Dorman Family Term Distinguished Associate Professor and Senior Associate Dean for Academic Programs-B.A., James Madison University; M.S., Old Dominion University; Ed.S., George Washington University; Ph.D., The College of William and Mary.

Rebecca Beasley (2007), Director, Learning Resources Center-B.A., University of Southern California; M.S., Florida State University.

Erica Carter (2017), Advancement and Communications Specialist-B.A., Christopher Newport University; M.A., Johns Hopkins University.

Elizabeth Cavallari (2019), Manager of Recruitment and Admissions-B.A., Bucknell University.

Kelley Clark (2018), Clinical Placements and Licensure Manager-B.A., Grove City College; M.A Ed., The College of William & Mary.

Tracy L. Coates (2015), Executive Assistant to the Dean.

Amy Colley (2016), Executive Director, School-University Research Network (SURN)-B.A., Christopher Newport University; M.A., MEd., and Ed.D., The College of William and Mary.

Brandon Corbett (2010), Technology Support Engineer.

Mark Eaton (1998), Sr. Technology Support Engineer- B.A., Rutgers University; M.S. Radford University.

Renea Eubanks (2007), Faculty Secretary.

Tammy Gainer (2017), Registrar-B.S. Christopher Newport University.

Elizabeth Kiewiet (2010), Director, Professional Development Center-B.A., George Mason University; M.Ed., The College of William and Mary.

April Lawrence (2011), Associate Director of eLearning- SoE- B.A., Virginia Tech; M.A., University of East Anglia; Ph.D., The College of William and Mary.

Peggy Phelps (2014), Director of Finance & Administration-B.A., Carleton College; M.P.A., Western Michigan University.

Patty Purish O'Neill (2007), Director of Development -B.A., University of Central Florida; M.S., Florida State University; Ph.D., The College of William and Mary.

Dorothy S. Osborne (2006), Assistant Dean for Academic Programs & Student Services- B.A., North Carolina State University., M.Ed., University of Oklahoma.
Sarah K. Taylor (2015), Fiscal Coordinator-B.A., Indiana University, B.M., Indiana University, M.P.A., University of Georgia.

## Faculty

Virginia M. Ambler (2009), Executive Assistant Professor-B.A. and Ph.D., The College of William and Mary; M.A., Ohio State University.

James P. Barber (2010), Clark G. and Elizabeth H. Diamond Term Distinguished Associate Professor-B.A., Grand Valley State University; M.A., Bowling Green State University; Ph.D., University of Michigan.

Katherine Barko-Alva (2016), Assistant Professor-M.Ed. and Ph.D., University of Florida

Stephanie Blackmom (2015), Associate Professor- B.A., Samford University; M.A. University of Alabama at Birmingham; PhD., University of Alabama.

Lori Bland (2019), Clinical Associate Professor-B.A., George Washington University; M.Ed. and Ph.D., University of Virginia

Brian W. Blouet (1989), Fred Huby Professor of Geology and International Education-B.A. and Ph.D., University of Hull.

Bruce Bracken (2000), Professor-B.S., College of Charleston; M.A. and Ph.D., University of Georgia.

Johnston M. Brendel (2006), Clinical Associate Professor-B.A., Virginia Tech; M.Ed., Virginia Commonwealth University; Ed.S. and Ed.D., The College of William and Mary.

Ashley Carpenter (2019), Clinical Assistant Professor-B.S., Eckerd College; M.A.T., University of South Florida; Ph.D., University of Connecticut

Jason Chen (2012), Dorman Family Term Distinguished Associate Professor-B.S., M.A.T., and Ph.D., Emory University.

Eddie R. Cole (2013), Associate Professor-B.S., Tennessee State University; M.S. and Ph.D., Indiana University.

Kristin Conradi Smith (2015), Associate Professor-B.A., College of William and Mary; M.Ed., and Ph.D., University of Virginia.

Margaret E. Constantino (2013), Executive Associate Professor-B.L.S., Mary Washington College; M.Ed., Virginia Polytechnic Institute and State University; Ph.D., University of Southern Mississippi.

Jennifer Riedl Cross (2011), Research Assistant Professor-B.S., Tusculum College; M.A. and Ph.D., Ball State University.

Tracy Cross (2009), Jody and Layton Smith Professor of Psychology and Gifted Education-B.S., M.S., Ed.S., and Ph.D., University of Tennessee, Knoxville.

Sharon H. deFur (1998), Professor-A.B., The College of William and Mary; M.Ed., Loyola College; Ed.D., George Washington University. Emerita.

Michael F. DiPaola (1998), Professor-A.B., The College of William and Mary; M.Ed., William Paterson College; M.A., Montclair State College; Ed.D., Rutgers, The State University.

Jamel K. Donnor (2010), William & Martha Clairborne Stephens Term Distinguished Associate Professor- B.A., Washington State University; M.A., Ohio State University; Ph.D., University of Wisconsin-Madison.

Pamela L. Eddy (2008), Professor- B.S., Allegheny College; M.S., Cornell University; Ph.D., Michigan State University.

Victoria A. Foster (1992), Professor-B.A. and M.A., University of Alabama at Tuscaloosa; Ed.D., North Carolina State University.

Christopher R. Gareis (2002), Professor -B.A., Washington and Lee University; M.A. Ed., Ed.S., and Ed.D., The College of William and Mary.

W. Fanchon Glover (2010), Executive Assistant Professor-B.S., Presbyterian College; M.Ed. and Ed.D., The College of William and Mary.

Charles F. Gressard (1993), Chancellor Professor-B.A., Wittenberg University; M.Ed., Kent State University; Ph.D., University of Iowa.

Daniel Gutierrez (2017), Assistant Professor- B.A., M.A., and PhD., University of Central Florida.

Judith B. Harris (2002), Robert D. & Patricia Lee Pavey Chair in Educational Technology, Professor-B.A., University of Pennsylvania; M.Ed., Beaver College; Ph.D., University of Virginia.

Natoya Hill Haskins (2016), Associate Professor-B.S., James Madison University; M.Ed., Virginia Commonwealth University; M.Div., Virginia Union University; Ph.D., College of William and Mary.

Mark Hofer (2005), Professor -B.A., Notre Dame University; M.S., Butler University; Ph.D., University of Virginia.

Heartley B. Huber (2016), Assistant Professor-B.S., M.Ed., and Ph.D., Vanderbilt University.

C. Denise Johnson (2005), Professor and Associate Dean for Teacher Education and Community Engagement-B.S., Kansas State University; M.Ed., University of Texas at Tyler; Ed.D., University of Memphis.

Melinda L. Johnson, (2014), Assistant Professor- B.A. Brigham Young University ; M. Ed., University of Massachusetts; Ph.D., University of Georgia Athens.
Meredith Kier (2015), Associate Professor- B.S. and M.A.T. James Madison University; PhD. North Carolina State University

Kyung H. Kim (2008), Professor-B.S., Kyungpook National University; M.S. and Ph.D., Korea University; Ph.D., University of Georgia.

Mihyeon Kim (2011), Clinical Assistant Professor-B.A., SungKyunKwan University; M.L.S., Indiana University; Ph.D., Florida State University; Ed.D., The College of William and Mary.

Lori A. Korinek (1985), Professor-B.S., University of Wisconsin at Madison; M.A.Ed., The College of William and Mary; Ph.D., University of Florida. Emerita.

Gladys Krause (2018), Assistant Professor-B.A., Universidad Santo Tomas; M.A., Pontificia Universidad Javeriana; Ph.D., University of Texas at Austin.

Marguerite M. Mason (1997), Professor-B.A., Knox College; M.S., Western Illinois University; Ph.D., University of Iowa.

Juanita Jo Matkins (2004), Associate Professor-B.S., Towson State University; M.Ed. and Ed.D., University of Virginia. Emerita.

Charles R. McAdams (1997), Professor-B.S., M.Ed., and Ed.D., North Carolina State University.

Gail A. McEachron (1987), Professor-B.A. and M.A., Arizona State University; Ph.D., University of Texas at Austin.

Ryan J. McGill (2015), Assistant Professor-B.A., Westmont College; M.A., Point Loma Nazarene University; Ph.D., Chapman University.

Virginia K. McLaughlin (1985), Chancellor Professor-A.B., The College of William and Mary; M.A., Vanderbilt University; Ed.D., Memphis State University.

Patrick R. Mullen (2015), Assistant Professor-B.A., Florida International University; M.A. and Ph.D., University of Central Florida.

Janise Parker (2017), Assistant Professor-B.S., Florida State University; M.Ed. and Ph.D., University of Florida.

Leandra Parris (2019), Assistant Professor-B.S., Wofford College; M.Ed. and Ph.D., Georgia State University

Patricia A. Popp (2005), Clinical Associate Professor-B.A., Boston University; M.Ed., Virginia Commonwealth University; Ph.D., The College of William and Mary.

Deborah L. Ramer (2008), Instructor-B.A., James Madison University; M.Ed. and Ed.S., University of Virginia.

Gene A. Roche (2002), A.B., Hamilton College; M.S. and Ed.D., Syracuse University.

Noelle St. Germain-Sehr (2019), Clinical Assistant Professor-B.M., Loyola University; M.Ed., University of New Orleans; Ph.D., St. Mary's University

Steven R. Staples (2008), Executive Professor-A.B. and M.Ed., The College of William and Mary; Ed.D., Virginia Polytechnic Institute and State University.

Drew Stelljes (2011), Executive Assistant Professor-B.S. and M.Ed., James Madison University; Ph.D., The College of William and Mary.

James H. Stronge (1989), Heritage Professor-B.S. and M.A, University of Alabama at Birmingham; Ph.D., University of Alabama at Tuscaloosa.

Elizabeth Talbott (2019), Professor-B.A., Virginia Polytechnic Institute and State University; M.Ed. and Ph.D., University of Virginia

Megan Tschannen-Moran (2000), Professor-B.S., Northwestern University; M.Ed. and Ph.D., The Ohio State University.

Carol Tieso (2005), Professor -B.A., University of California, Berkeley; M.A., California State University, Stanislaus; Ph.D., University of Connecticut.

Thomas J. Ward (1989), Professor-B.A., LaSalle College; M.S. and Ph.D., The Pennsylvania State University.

## SOE: Financial Information



*William & Mary reserves the right to make changes in its charges for any and all programs at any time, after approval by the Board of Visitors.*

### Tuition and General Fees (per semester)

A graduate student registered for 9 hours or more will be charged the full-time rate. Tuition for summer sessions will be charged at the per credit hour rate. In addition, a one-time registration fee of $25.00 and a

one-time comprehensive fee of $55.00 will be charged for summer sessions. Students auditing courses are subject to the same tuition and fees that apply to those courses taken for credit.

| **Tuition & Fees (2019-2020)** | **Per Credit Hour (Part-time students)** | **Per Semester (Full-time students)** | **Year (Fall/Spring) (Full-time students)** |
|---|---|---|---|
| **In-State Resident** | $585 | $8,220 | $16,440 |
| **Out-of-State Resident** | $1,383 | $17,400 | $34,800 |

Part-time students are charged per credit hour.

**NOTE:** There is an additional, one-time LiveText Fee of $115 (not included in the tuition and fees listed above)

***LiveText*** is a web-based document creation and storage system that provides School of Education students the ability to store, maintain, and publish a professional career portfolio that can be accessed for up to five years after graduation.

**Program Exceptions**

- The Executive EdD program charges a per credit hour rate of $950 for in-state and out of state students.
- The Online Counseling program charges a per credit hour rate of $665 for in-state and out of state students.

More information regarding the annual cost of attendance can be found on the Financial Aid website.

For more information on tuition and fees, billing and payment options, visit eServices.

## Late Payment Policy

Students whose payments are received after the due date will be assessed a late payment fee of up to 10% of the outstanding balance (not to exceed $100) as prescribed in 2.2-4805 of the Code of Virginia . Failure to receive a bill does not waive the requirement for payment when due and will not prevent the application of the late fee.

## Credit for Scholarships

Students who have been awarded financial aid are required to pay any amount not covered by the award by the established semester payment due date to avoid being charged a late payment fee. The Office of Student Accounts must receive written notification of any outside scholarship from the organization before the credit can be given towards tuition and fees.

## College-Wide Financial Assistance

Student Loans are available to students whether or not they have demonstrated financial need. Students interested in applying for a loan must first complete the Free Application for Federal Student Aid (FAFSA) by April 1. Once the Financial Aid Office has received the FAFSA data, they will package the student. The package will indicate whether or not the student is eligible for loans and all pertinent loan instructions will be enclosed.

In addition to the FAFSA, a Summer School Information Sheet must be completed with a copy of the summer registration schedule attached. Students must register for ALL summer session courses before

submitting the Summer Information Sheet. Graduate students must register for at least three credit hours in order to be eligible for federal aid programs during the summer. The summer financial aid processing period is a very tight one. It is absolutely essential that the submission deadline dates are met and all requested information is submitted immediately.

Additional assistance is available in the form of alternative loans. Individual eligibility will vary according to cost, need, other aid that is received and the credit worthiness of the borrower. A list of recommended, alternative loan programs can be obtained by contacting the Financial Aid Office at (757) 221-2420.

## SOE: Policies

- Academic Policies
- Doctoral Student Policies
- Admission to the Graduate Program

## SOE: Academic Policies

- Academic Continuance & Standards
- Academic Dismissal
- Academic Holds
- Add/Drop and Withdrawal
- Advisement
- Candidacy for Graduation
- Definition of Graduate Credit/Courses
- Doctoral Student Policies
- Evaluation System
- Grade Appeal
- Independent Study
- Leave of Absence
- Requests for Exceptions to Academic Policies
- Transfer Credit, Course Substitution, and Course Exemption
- Transfers Between Departments and Within Departments

Students in the School of Education are subject to the academic policies of the School and of the individual programs in which they enroll as well as the rules and regulations of William & Mary.

Policies for individual programs are included in the description for that program. In accordance with William & Mary's academic policies, it is the student's responsibility to know and meet the academic requirements of the program.

### Academic Continuance & Standards

A degree is awarded only when a student has completed a program of studies with a grade-point average of at least a B (3.0 on a 4.0 scale).

Degree credit is granted only for coursework in which the student earns a grade of C- or above. A graduate student may repeat one course in which a grade of C- or lower is received.

The grade earned initially remains a part of the student's record and is included in computations of quality-point requirements. Any student receiving more than one D or F in an approved program of studies will not be permitted to continue in that program. All papers/projects/dissertations/thesis submitted must be original to each course unless the student has explicit prior permission from the instructor(s) involved.

### Academic Dismissal

A student will be dismissed from a program if the student:

1. Receives two or more grades of "D" or "F" in any course in an approved program of studies;
2. Fails to achieve a cumulative GPA of at least a 3.0 upon completion of 30 credit hours;
3. Fails to pass the EPPL doctoral written comprehensive examination two times;
4. Fails to pass any section of the Counselor Education doctoral comprehensive examination (exam, paper, and oral) two times.

Under extraordinary circumstances, a dismissed student may be reinstated upon appeal to the Academic Affairs Committee. All appeals must but be submitted in writing to the School of Education Registrar no later than 7-calendar days after receipt of the notification.

## Academic Holds

The institution reserves the right to place an administrative hold on a student's record when students have not provided requested paperwork, or have not complied with the rules and regulations of the institution. Such holds typically prevent registration and/or receipt of grades or transcripts. Questions regarding the Dean of Education hold should be referred to the Office of Academic Programs.

## Add/Drop and Withdrawal

Regulations regarding dropping of courses and withdrawal from William & Mary apply to both unclassified post-baccalaureate students and graduate students who have been formally admitted to a program in the School of Education. Failure to complete official procedures for withdrawal will result in a grade of "F."

## Advisement

Each student is assigned a program faculty advisor upon admission to the School of Education. Students are responsible for planning a course of study with their advisors. Each graduate student and his or her advisor should work closely together to develop a program of studies that is consistent with the student's personal and professional goals; that builds effectively on previous educational experiences; that fulfills degree requirements in foundational, specialty, and emphasis areas; and that satisfies relevant requirements for certification or licensure.

## Candidacy for Graduation

Students who have completed a planned program of studies and satisfied all of the academic standards of the School of Education are eligible to receive their degrees at the next regularly scheduled commencement exercise of William & Mary. Exercises are scheduled only in May following the spring semester, but degrees are also awarded in August and December. Students completing degrees in summer sessions or in the fall semester may participate in the exercises the following May. Graduate students anticipating completion of the requirements for the master's, educational specialist, or doctorate degree must "Apply to Graduate" (by completing an on-line form found on the University Registrar's Office website), and follow the established deadlines (announced on the School of Education's web site calendar.)

## Definition of Graduate Credit/Courses

Only those courses numbered in the 500's and above in the School of Education are acceptable for credit toward a graduate degree; however some courses at the master's level have alphabetic characters rather than 5's in the hundreds place. When courses are cross-listed at the 400/500 levels, graduate students are expected to enroll at the master's level courses. Courses offered by other graduate schools and departments of William & Mary are acceptable for graduate credit upon the approval of a student's program advisor.

## Evaluation System

The Faculty of the School of Education uses the following grading system including plus and minus designations as appropriate to evaluate student performance in graduate courses:

**A** Performance considerably above the level expected for a student in a given program

**B** Performance equal to expectation for acceptable performance at the student's level of study

**C** Performance below expectation but of sufficient quality to justify degree credit

**D** Performance unacceptable for graduate degree credit but sufficient to warrant a "passing" grade for non-degree purposes (such as teacher certification renewal)

**F** Unacceptable level of performance for any purpose

**P** Passing level of performance (used for selected courses and practica)

**W** Notation used when a student withdraws after the add/drop period ends

**WM** Notation used on all courses for a verified medical withdrawal from William & Mary

**I** Used at the discretion of the professor when a student has not completed all requirements due to illness or extenuating circumstances. An 'I' grade automatically converts to an 'F' if the work is not completed by the end of the regular semester following the course, or at the end of an additional semester if an extension is granted.

**G** Deferred grade only used for dissertation credit

Students graded A receive 4 quality points; A-, 3.7; B+, 3.3; B, 3.0; B-, 2.7; C+, 2.3; C, 2.0; C-, 1.7; D+, 1.3; D, 1.0; D-, .7; and an F carries no credit and no quality points.

## Grade Appeal

Students have the right to appeal a final course grade. All appeals must be submitted to the Associate Dean for Academic Programs within three weeks after the start of the next regular academic semester.

### Grade Appeal Procedure

1. The student shall meet first with the instructor to discuss the grade. Upon request, the student should be informed of the evaluative criteria used in determining the grade.

2. If the dispute is not resolved by meeting with the instructor, the student may present a written statement of appeal, with available documentation to support the complaint, to the Associate Dean for Academic Programs. This statement must be presented no later than three weeks after the beginning of the next regular academic semester.

3. The Associate Dean shall then appoint a member of the faculty other than him or herself, agreed upon by both parties, who shall seek to mediate the dispute.

4. If the dispute is not settled by mediation within two weeks of the presentation of this statement to the Associate Dean, the student may request in writing that the Associate Dean appoint a committee of the School (typically three members) to review and resolve the case. (If the Associate Dean is the

instructor involved, the student's request shall be directed to the Dean, who will appoint the review committee.)

5. The disputed evaluation shall stand or be modified in accord with the committee's decision, which shall be delivered in writing to the instructor, to the student, and to the Associate Dean (or to the Dean, if the Associate Dean is the instructor involved).

6. The purpose of alteration is to redress the appeal. The committee may substitute another grade or, if it lacks a basis for doing so, it may substitute a Pass, with a waiver of use of the course in any computation which would require a quality grade and a corresponding readjustment of the standard involved (e.g., the requirement of a 3.0 quality point average for all courses in the field of concentration for which the student receives an official grade).

7. The decision of the committee shall be final, except that, upon receipt of a written appeal about procedure from either party within two weeks of notice of the committee's decision, the Associate Dean may ask the committee to review its action.

## Independent Study

The main purpose of an independent study course is to give the student the opportunity to learn information not taught in regular courses. Independent study must follow departmental processes for approval.

## Leave of Absence

The Associate Dean of Academic Programs may grant leaves of absence to graduate students in the School of Education. Leaves of absence shall be granted for a specific period of time. A student who requests an extension of a current leave of absence shall have the request considered as a new request. Students approved for a leave of absence will have their time limit for degree completion requirement stopped for the duration of the approved leave period. Upon return from approved leave, the student's time limit to degree completion count will resume. To request a leave of absence, students are required to complete and submit the School of Education Application for Leave of Absence Form to the Associate Dean of Academic Programs at least 30 days prior to the leave request date.

## Requests for Exceptions to Academic Policies

To request exceptions to academic policies, students should direct their appeals to the School of Education Academic Affairs Committee through the Associate Dean for Academic Programs of the School of Education. Petition forms for this purpose are available on the School of Education web site.

## Transfer Credit, Course Substitution, and Course Exemption

Students who wish to request credit for graduate work taken at another institution of higher education, a course substitution in an approved program of study for a course taken at William & Mary, or a program course exemption should consult with their program advisor and obtain approval. If approval is given, the advisor will complete an approved Transfer of Graduate Credit, Course Substitution, and Course Exemption Form and forward the request to the Office of Academic Programs for approval by the Associate Dean for Academic Programs on behalf of the Academic Affairs Committee. If the request involves a course that is part of a licensure or endorsement program, approval from the Office of Teacher Education and Community Engagement is required.

### Transfer Credit

Prior graduate coursework can be considered for transfer credit only if it was completed within four years of the date of admission to the student's current graduate program. Also, in order for a course to

be considered for transfer credit from another institution, the student must have received a grade of B or better. Only courses which were not part of an earned graduate degree may be eligible for transfer (providing the maximum number of transfer hours and the course age requirements are met). Request for transfer can be considered formally only following admission to graduate study and upon receipt of an official transcript from the institution where the work was completed.

A maximum of 12 hours of credit earned at other accredited institutions of higher education and/or credit for coursework completed at William & Mary prior to admission may be applied to a master's degree or Ed.D. A maximum of 15 credit hours can be applied toward the Ed.S. or Ph.D.

Ed.D. students must earn a minimum of 36 hours and Ph.D. students must earn a minimum of 45 hours beyond the master's level at William & Mary. Courses taken prior to matriculation will be counted as transfer credit.

**Course Substitution**

Graduate students who wish to substitute a course in an approved program of studies may request a course substitution via the Transfer of Graduate Credit, Course Substitution, and Course Exemption Form. The advisor will assess the appropriateness of the course substitution. An independent study cannot be substituted for a required course unless the student petitions the Academic Affairs Committee and receives approval prior to registering for the course.

**Course Exemption**

Graduate students who believe they have previously met the objectives of a graduate course offered by the School of Education may request a program course exemption via the Transfer of Graduate Credit, Course Substitution, and Course Exemption Form. The advisor will assess the previous course(s) for objective coverage and, when necessary, make the arrangements for an oral and/or written assessment. Semester hours of credit are not awarded for exempted courses, and the total number of required hours in an EPPL or SPACE degree program will not be reduced.

Students enrolled in Master of Arts in Education (M.A.Ed.) programs in Curriculum & Instruction who have previously met the objectives of a graduate course offered by the School of Education may request a course exemption from their programs. Although semester hours of credit will not be awarded for exempted courses, the total number of required credit hours in the degree program will be reduced by the number of credit hours exempted. Students who exempt one or more courses must complete a minimum of 30 graduate credit hours to be eligible for the M.A.Ed. Students must earn a minimum of 24 graduate credit hours at William & Mary post admission to their current graduate program.

## Transfer Between Departments and Within Departments

The three departments are defined as (1) Curriculum and Instruction, (2) Educational Policy, Planning and Leadership and (3) School Psychology and Counselor Education.

**Transferring Between Departments**

Matriculated students who wish to transfer between departments to a program at the same degree level will be required to complete an abbreviated re-application process. The student will be considered and treated as a new applicant. The following information should be provided:

a. A new or revised application form to include a new essay that explains the reason for change;
b. updated transcripts, if applicable;
c. updated test scores, if applicable;
d. updated letters of recommendation, if applicant chooses to do so; and
e. any additional materials or documentation required by specific programs.

After a student submits the new application, the review process will follow regular admission procedures. Students who wish to change degree level must apply through the regular admissions cycle. Changing from EdD to PhD will require a new application.

**Changing Concentrations**
For students who wish to change a concentration within a department, the student must receive the approval of the current faculty advisor, the new advisor (if applicable), the program coordinator, and department chair. Forms for a change of concentration are available on the School of Education's website at education.wm.edu.

## SOE: Doctoral Policies



### Doctoral Residency

**Ph.D. Residency**

To satisfy the residency requirement, Ph.D. students should enroll in a minimum of nine academic credit hours for two consecutive semesters (excluding summers), excluding internships and dissertation credits. No more than three credits per semester may be taken as independent study during the residency. Students may earn internship or dissertation credit during their residency period by enrolling for more than the minimum nine course credit hours. Internships and dissertation credits do not count toward residency. Students in the residency phase of the Ph.D. program are full-time students, and as such are expected to participate in a variety of professional socialization experiences, such as conference proposal preparation, making presentations during seminars and symposia, and writing for publication.

**Optional Ph.D. Residency (EPPL students only)**

To satisfy the residency requirement, EPPL Ph.D. students may choose to enroll in a minimum of six academic credit hours for two consecutive semesters (excluding summers), excluding internships and dissertation credits, and in addition are required to submit a proposal to a professional conference or submit a scholarly journal article as part of their scholarly preparation. Independent study courses do not count toward fulfilling the credits for residency. Students may earn independent study, internship, or dissertation credit during their residency period by enrolling for more than the minimum six course credit hours. Internship, independent study, and dissertation credits do not count toward residency. Students in the residency phase of the Ph.D. program are expected to participate in a variety of professional socialization experiences.

### Doctoral Committees

Doctoral committee make up is different by department. See Educational Policy, Planning & Leadership (EPPL) or School Psychology & Counselor Education (SPACE) for committee details.

### Comprehensive Exams

The purpose of the comprehensive examination process is threefold. The first emphasis is placed on the student's ability to produce an independent integration and synthesis across the graduate course work and

topic areas in the program of study. The second emphasis is to assess the student's ability to interrelate theory, research and practice in the program of study. Third, the comprehensive exam is an opportunity to assess the readiness of the student to continue the doctoral program to completion, with an emphasis on appropriate knowledge, scholarly writing and organizational skills. The Office of Academic Programs schedules the comprehensive examination. The comprehensive exam process is different by department.

Comprehensive exams are required for elevation to doctoral candidacy. For department specific information regarding comprehensive exams, see Educational Policy, Planning & Leadership (EPPL) or School Psychology & Counselor Education (SPACE).

## Doctoral Candidacy

In order to achieve the status of "Doctoral Candidate," doctoral students must complete three requirements:

1. Satisfy the Residency requirement of the degree program
2. Pass Comprehensive Exam
3. Successfully complete all required program coursework except for EDUC 800/EPPL801

## Continuous Enrollment

Upon successful defense of a dissertation proposal, students must enroll in dissertation credit hours (EDUC 800 Dissertation or EPPL 801 Dissertation Study depending on degree program) during each fall and spring semester until graduation. If students expect to work with their chairs or other committee members during a summer semester, they should enroll in EDUC 800/EPPL 801 as appropriate during the summer semester, after securing the approval of their chair. Although students may have taken the minimum number of dissertation credits required for their program, continuous enrollment in EDUC 800 or EPPL 801 must be maintained once the dissertation proposal has been approved until they have successfully completed and defended their dissertation.

Students may may formally request a leave of absence from the program by following the appropriate School of Education protocol. Failure to maintain continuous enrollment will result in withdrawal from a program and require a petition to request reinstatement.

## Dissertation

The dissertation requirement is intended to prepare graduates to design, conduct, and interpret research on significant educational issues and problems. All doctoral level research should enhance understanding of the educational process and/or inform educational policy and practice.

Dissertation research for the Ed.D. degree must build upon prior scholarship and theory and apply research findings in a manner that will illuminate and enhance educational policy and practice.

Dissertation research for the Ph.D. degree should advance scholarship in the field of education by making an original contribution to educational knowledge and theory in a manner that has the potential to impact educational practice. It is anticipated that Ph.D. dissertations will lead to publications in relevant journals or other publication outlets.

All dissertations will be judged on their overall contribution to knowledge including the study's clarity, application of theory and prior and/or related research, and relevance to educational policy and practice.

### Proposal

The dissertation proposal must be a substantive, carefully crafted scholarly document. The proposal will contain a statement of the problem to be investigated, a conceptual framework, a review of related literature, and a description of the study's methodology. Some research methodologies employ different proposal formats and require different emphases among the areas included in the proposal. In all cases, a dissertation proposal should provide a clear, systematic, and conceptually sound overview of the proposed study that explains in detail why and how the study will be conducted.

**Proposal Defense**
The purpose of the proposal defense is to assess the merits of the proposed research and the ability of the doctoral candidate to conduct this research in a scholarly manner. The proposal must be defended in a formal meeting to be attended by all members of the Committee. A unanimous vote of committee members at the time of the proposal defense is required for approval of the proposal. If unanimous approval is not given at this defense, the Chair will make recommendations to remedy any deficiencies. A second proposal defense will be scheduled by the Chair and the student.

**Defense**
The purpose of the dissertation defense is to assess the merits of the doctoral research and the ability of the doctoral candidate to interpret the scholarship within the context of the educational system and the larger society. The dissertation must be defended in a public forum. All members of the Comprehensive/Doctoral Committee must attend the defense and the defense should be open to all members of the university community and invited guests. A unanimous vote of committee members is required for approval of the dissertation at the defense. If unanimous approval is not given at this defense, the Chair will make recommendations to remedy any deficiencies. A second dissertation defense will be scheduled by the Chair and the student. The Comprehensive/Doctoral Committee chair will notify the educational community of the time, date, and location of the scheduled defense at least ten days prior to the event.

## SOE: Admission to the Graduate Program



### Application
The following items must be submitted to the Office of Academic Programs before an application for admission will be processed:

- Online graduate application form (Online application can be found on the School of Education website)
- Transcripts from all previous undergraduate and graduate work. Applicants may provide unofficial transcripts for initial review, but official transcripts will be required if admitted.
- Admission Tests - Not all programs require the same admissions test. Please see the School of Education website for admission test specifics.
- Letters of recommendation (completed online) from 3 persons qualified to evaluate the applicant's professional, ethical, and academic qualifications for graduate study. It is suggested that the applicant present a combination of professional, and academic references. The written references will be used exclusively for purposes of admission to the School of Education.
- A $50.00 non-refundable application fee
- Essay(s) with focus on personal and professional goals

- Résumé
- Research Paper - EPPL Doctoral applicants only
- Interview - required by the School Psychology program and the PhD in Counselor Education
- Any additional materials or documentation required by specific programs

## International Student Admission

International students are encouraged to apply for graduate study in the William & Mary School of Education. The admission process of foreign students considers English language proficiency and academic qualifications.

### English Language Proficiency

Applicants whose native language is not English must submit the results of the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) scores to the Office of Academic Programs. Although a minimum score for admission has not been issued, international students who are typically admitted score at least 100 on the internet version of the TOEFL exam (or comparable score on other versions of the exam) or at least a 7 on the IELTS. Scores more than 2 years old cannot be reported or verified by the testing center.

### Required Academic Qualifications

International students that have been awarded the baccalaureate degree (or its equivalent) from any institution other than a U.S. regionally accredited institution of higher education, must submit official copies of all transcripts from every college or university attended and certified literal translations where needed. These transcripts must show courses, grades received, annual mark sheets, examination sheets, and completion certificates as they apply in the student's home country. Official copies must bear the seal of the issuing institution and the actual signature of the college or university registrar. Applicants pursuing a licensure program should submit an evaluation of foreign credits from an evaluator, such as World Education Services (WES).

## Applying to Multiple Programs

An individual may apply to more than one program, but may only enroll in one program at a time. A student may take second-program courses, but cannot officially start the next program until the first program is completed, or the student withdraws from the first program. Courses taken toward the second program while still in the first program must adhere to the policies pertaining to transfer credit.

## Admission Review

Faculty in each department will review applications and recommend applicants for admission, wait list, deferred admission, or denial of admission. In general, students are selected on the basis of their academic preparation [quality of their undergraduate institution, undergraduate GPA and graduate GPA if applicable, and test scores], letters of recommendation, scholastic ability, professional work or volunteer experience, and commitment toward a career in education.

Admissions requirements do not state a minimum grade point average or standardized entrance examination score cutoff to be considered for admission. Instead, the program faculty will holistically review all completed applications to select the students with the most competitive characteristics on the admissions criteria.

### Review of Off-Cycle Admissions

The Associate Dean for Academic Programs can recommend to the faculty a review of candidates for off-cycle admission only upon the presentation of a compelling need for such a review. Off-cycle review of applications will be considered only when warranted by extenuating circumstances.

Students seeking an off-cycle review must provide evidence that postponing the review until the next admissions cycle would create a severe hardship. Program faculty seeking an off-cycle review of a student must provide documentation in support of the review.

### Admission Decisions

All applicants will receive official notification of admission decisions from the Office of Academic Programs immediately following action by the program faculty.

#### Accepting the Admission Offer

Students must submit the enrollment deposit in order to accept the admission offer. Students are assigned an advisor upon admission and are advised to contact the advisor as soon as possible following notice of admission.

*Note: Students who accept an offer of admission but who fail to matriculate within two semesters after the formal date of entry will be withdrawn from the respective degree program. If a student wishes to pursue a graduate education degree at a later time, the student will need to reapply through the standard application and admission review process.*

#### Deferring Admission Offer for One Year

Students interested in deferring admission for one year must make the admission deposit in order to hold the space, and must notify the Office of Academic Programs of the intention to defer. A student can defer admission for no more than one year, after which time the admission to the School of Education will be withdrawn.

#### Deferred Admission Decisions

In cases where an admission decision has been deferred by the faculty, applicants will be required to furnish additional evidence of their aptitude for graduate study or other additional, pertinent information. After receipt of the requested additional information, the application will be reconsideration by the program faculty,

### Appeal Procedures

#### Appeal of Admission Policy

An applicant may request an exception to application policies and procedures by addressing an appeal to the Associate Dean for Academic Programs.

#### Appeal of Admission Decision

If an applicant is denied admission, the applicant may request reconsideration by addressing an appeal to the Associate Dean for Academic Programs. The appeal should include all available evidence and/or documentation that might indicate that the application decision may not have represented an accurate evaluation of demonstrated ability.

## SOE: Departments and Degree Programs

- Curriculum & Instruction (C&I)
- Educational Policy, Planning & Leadership (EPPL)
- School Psychology & Counselor Education (SPACE)

## Curriculum & Instruction (C&I)

The M.A.Ed. Programs in Curriculum & Instruction are initial licensure programs with concentrations in Elementary Education, Secondary Education, Special Education, English as a Second Language (ESL) Bilingual Education.

## The M.A.Ed. Program

During the summer, students take foundational courses. During the fall and spring semesters, students complete courses specific to their intended endorsement area. In the spring semester, elementary, secondary and ESL & Bilingual Education program students complete full-time, supervised student teaching experiences. Students in the special education program complete student teaching experiences in both the fall and the spring.

The conceptual focus of the teacher preparation program is on developing "reflective practitioners" who carefully collect information about students and student learning to make informed teaching decisions. Eight important strands are articulated throughout the M.A.Ed. Program:

- Development of content area expertise, including both general studies and pedagogical content knowledge;
- Focus on instructional design principles, including a common unit planning and lesson plan format;
- Emphasis on classroom management strategies and techniques;
- Attention to student diversity issues;
- Acquisition of knowledge and skills in instructional technology;
- Attention to issues in working with families and collaborating with school personnel;
- Examination of student assessment strategies, especially in curriculum-based assessment that informs classroom teaching;
- Maintenance of a portfolio documenting acquisition of professional competencies.

Additional policies and procedures that govern students in the teacher preparation programs during field experiences are included in the Handbook for Practica and Student Teaching Experiences available on the Office of Teacher Education and Community Engagement website.

## Field Experiences & Continuation Policy

To be eligible to student teach, students must meet the Praxis Core Academic Skills for Educators requirement and successfully complete all education program courses with passing grades. Earning an F or I in any of these courses will prevent students from participating in student teaching.

Additional policies and procedures that govern students in the teacher preparation programs during their field experiences are included in the *Handbook for Practica and Student Teaching Experiences*, which is available through the Office of Teacher Education and Community Engagement or on the Office of Teacher Education and Community Engagement website.

## Transportation

All field experiences take place in K-12 classroom settings. Students are placed in schools within a 60 mile radius of the School of Education. This placement could be up to a 45 minute drive from campus. Students are responsible for getting to practica and student teaching placements. Students should provide

their own transportation. Taking public transportation is an option, but not always practical, and will only work if placed in the Williamsburg-James City County School Division. Relying on others for rides is never an optimum arrangement but may be necessary.

### Licensure Testing Requirements

Students are required to achieve passing scores on assessments prescribed by the Virginia Board of Education, both for program completion and for licensure. In order to apply for licensure, the Virginia Board of Education requires that paper copies of official score reports be submitted; therefore, these reports will need to be provided to the Office of Teacher Education and Community Engagement along with other licensure paperwork. Registration information for all tests and additional information about applying for licensure are available on the Office of Teacher Education and Community Engagement website (https://education.wm.edu/academics/oteps/exams/index.php).

(Note: Virginia's mandated licensure assessments are graduation requirements.)

Students who complete the requirements for initial licensure can add an additional endorsement in the state of Virginia by passing a Praxis Subject Assessment exam. This applies for students in elementary, special, or secondary education taking a middle or high school Praxis Subject Assessment exam, but it does not apply for special or secondary education students taking the Elementary Praxis Subject Assessment exam.

### CPR AED First Aid Training

Candidates seeking initial license in Virginia are required to complete training in cardiopulmonary resuscitation, the use of an automated external defibrillator, and first aid. Training courses are available through national emergency care organizations such as the American Heart Association and the American Red Cross. Documentation of training (typically in the form of a current certification card) must be provided to the Office of Teacher Education and Community Engagement as part of the licensure application packet.

### Program Completion

To complete a program in teacher education, students must successfully complete all of the designated licensure assessments, endorsement courses and the education courses, including student teaching. The students' university supervisor and cooperating teacher are each required to verify and evaluate the students' performance during a full-time student teaching experience with pupils in a state-accredited K-12 school. After verification by the Office of Teacher Education and Community Engagement that the students have successfully completed all course and program requirements, the office will assist students in obtaining the appropriate teaching license in Virginia.

## SOE: Curriculum & Instruction (C&I) Degree and Certificate Programs

**Initial Licensure Programs**

- Elementary Education (PreK-6), MAEd
- Secondary Education English, MAEd
- Secondary Education Mathematics, MAEd
- Secondary Education Science, MAEd
- Secondary Education Social Studies, MAEd
- Special Education, MAEd
- English as a Second Language (ESL) and Bilingual Education, MAEd

**Special Programs**

- English as a Second Language (ESL) Dual Endorsement Program
- Certificate in Autism Spectrum Disorder

## Elementary Education (PreK-6), MAEd

This program must be completed on a full-time basis.

### Program of Study - Elementary Education, MAEd

**First Semester - Summer (12 credits)**
CRIN 591 Current Issues in Curriculum, Instruction, and Assessment (3)
EDUC F11 Social, Philosophical, Cultural, and Historical Foundations of Education (3) +
EDUC F12 Advanced Educational Psychology and Development (3)
EDUC F65 Research Methods in Education (3)

**Second Semester - Fall (17 credits)**
CRIN E03 Elementary Reading and Language Arts Curriculum and Instruction (5)
CRIN L03 Elementary Reading and Language Arts Curriculum and Instruction (Lab) (1)
CRIN E05 Elementary Social Studies Curriculum and Instruction (2)
CRIN L05 Elementary Social Studies Curriculum and Instruction (Practicum) (1)
CRIN E06 Elementary Science Curriculum and Instruction (2)
CRIN L06 Elementary Science Curriculum and Instruction (Practicum) (1)
CRIN E07 Elementary Mathematics Curriculum and Instruction (2)
CRIN L07 Elementary Mathematics Curriculum and Instruction (Practicum) (1)
CRIN E09 Designs for Technology-Enhanced Learning (Elementary Education) (2)

**Third Semester - Spring (16 credits)**
CRIN 550 Assessment of Learning (1)
CRIN 590 Collaborating with Families and School Personnel (3)
CRIN E08 Introduction to Classroom Organization, Management and Discipline (1)
CRIN E10 Adaptations for Exceptional Student Populations (Elementary Education) (1)
CRIN E11 Student Teaching Seminar in Elementary Education (1)
CRIN E22 Characteristics of Exceptional Student Populations (Elementary) (1)++
CRIN L10 Differentiating and Managing in Diverse Classrooms Practicum: Elementary (1)
CRIN L20 Supervised Teaching in Elementary Education (7)

### Total Credit Hours: 45

*+If exempted from EDUC F11 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Child Abuse Recognition and Reporting for Virginia licensure.*

*++If exempted from CRIN E22 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Dyslexia training for Virginia licensure.*

### Additional Graduation Requirements

Students are required to achieve passing scores on assessments prescribed by the Virginia Board of Education, both for program completion and for licensure. Virginia's mandated licensure assessments are graduation requirements.

CPR/AED/First Aid Training - Candidates seeking initial license in Virginia are required to complete training in cardiopulmonary resuscitation, the use of an automated external defibrillator, and first aid.

Training courses are available through national emergency care organizations such as the American Heart Association and the American Red Cross. Documentation of training (typically in the form of a current certification card) must be provided to the Office of Teacher Education and Community Engagement as part of the licensure application packet.

### Endorsement Courses for Elementary Education

In addition to other program requirements, candidates seeking an endorsement in elementary education PK-6 must complete **six semester hours** in each of the following disciplines:

- English
- Mathematics
- Laboratory sciences - The laboratory science courses must be from two different science disciplines.
- History and social sciences

## Secondary Education English, MAEd

This program must be completed on a full-time basis.

### Program of Study - Secondary English, MAEd

**First Semester - Summer (12 credits)**
CRIN 541 Teacher, Schools & Community (3)
EDUC F11 Social, Philosophical, Cultural, and Historical Foundations of Education (3) +
EDUC F12 Advanced Educational Psychology and Development (3)
CRIN 540 Teacher as Inquirer (3)

**Second Semester - Fall (18 credits)**
CRIN S01 Curriculum and Instructional Methods (English) (3)
CRIN S05 Reading and Writing Across the Disciplines (3)
CRIN S32 Digital Humanities (3)
CRIN S50 Introduction to the Characteristics of and Instructional Supports for Exceptional Students (3)++
CRIN S11 Clinical Experience in Secondary Schools (English) (3)
CRIN S77 Literature for Adolescents (3)

**Third Semester - Spring (14 credits)**
CRIN S38 Curriculum Planning and Assessment (English) (3)
CRIN S09 Classroom Organization, Management and Discipline (Secondary Education) (3)
CRIN L30 Internship in Supervised Teaching (English) (8)

### Total Credit Hours: 44

*+If exempted from EDUC F11 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Child Abuse Recognition and Reporting for Virginia licensure.*

*++If exempted from CRIN S50 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Dyslexia training for Virginia licensure.*

### Additional Graduation Requirements

Students are required to achieve passing scores on assessments prescribed by the Virginia Board of Education, both for program completion and for licensure. Virginia's mandated licensure assessments are graduation requirements.

CPR/AED/First Aid Training - Candidates seeking initial license in Virginia are required to complete training in cardiopulmonary resuscitation, the use of an automated external defibrillator, and first aid. Training courses are available through national emergency care organizations such as the American Heart Association and the American Red Cross. Documentation of training (typically in the form of a current certification card) must be provided to the Office of Teacher Education and Community Engagement as part of the licensure application packet.

### Endorsement Courses for Secondary English

In order to be licensed as a secondary English teacher (6-12) in Virginia, English majors shall receive a degree with a major in English or a minimum of 36 semester hours distributed in the following areas:

Literacy and reading - 12 semester hours with courses to include:

- Survey of British literature
- Survey of American literature
- World literature
- Literary theory and criticism

Language - 3 semester hours, to include the development and nature of the English language

Composition - 12 semester hours with experiences to include:

- A grammar course integrating grammar and writing
- The teaching of writing, based on current knowledge and most effective practices, including the use of technology for this purpose
- An advanced composition course emphasizing rhetorical practices of expository, persuasive, argumentative, and analytical writing
- Teaching research including ethical accessing, evaluating, organizing, crediting, and synthesizing information

Oral language - 3 semester hours, to include the teaching of public and presentation speaking, including nonverbal communication and the role of communication in small group and mass communication

Electives in English - 6 semester hours

## Secondary Education Mathematics, MAEd

This program must be completed on a full-time basis.

### Program of Study - Secondary Math, MAEd

**First Semester - Summer (12 credits)**
CRIN 541 Teacher, Schools & Community (3)
EDUC F11 Social, Philosophical, Cultural, and Historical Foundations of Education (3) +
EDUC F12 Advanced Educational Psychology and Development (3)
CRIN 540 Teacher as Inquirer (3)

**Second Semester - Fall (15 credits)**
CRIN S03 Curriculum and Instructional Methods (Mathematics) (3)
CRIN S05 Reading and Writing Across the Disciplines (3)
CRIN S31 Technology for STEM Integration (3)
CRIN S50 Introduction to the Characteristics of and Instructional Supports for Exceptional Students (3)++
CRIN S13 Clinical Experience in Secondary Schools (Mathematics) (3)

**Third Semester - Spring (14 credits)**
CRIN S39 Curriculum Planning and Assessment (Mathematics) (3)
CRIN S09 Classroom Organization, Management and Discipline (Secondary Education) (3)
CRIN L32 Internship in Supervised Teaching (Mathematics) (8)

## Total Credit Hours: 41

*+If exempted from EDUC F11 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Child Abuse Recognition and Reporting for Virginia licensure.*

*++If exempted from CRIN S50 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Dyslexia training for Virginia licensure.*

## Additional Graduation Requirements

Students are required to achieve passing scores on assessments prescribed by the Virginia Board of Education, both for program completion and for licensure. Virginia's mandated licensure assessments are graduation requirements.

CPR/AED/First Aid Training - Candidates seeking initial license in Virginia are required to complete training in cardiopulmonary resuscitation, the use of an automated external defibrillator, and first aid. Training courses are available through national emergency care organizations such as the American Heart Association and the American Red Cross. Documentation of training (typically in the form of a current certification card) must be provided to the Office of Teacher Education and Community Engagement as part of the licensure application packet.

## Endorsement Courses for Mathematics

Those students preparing to teach mathematics must fulfill the major requirements in the mathematics department. Within the major requirements, students need to complete 36 semester hours of coursework distributed in each of the following areas.

- Algebra. Experience shall include linear algebra (matrices, vectors, and linear transformations) and abstract algebra (ring, group, and field theory).
- Geometry. Experience shall include Euclidean and non-Euclidean geometries.
- Analytic geometry
- Probability and statistics
- Discrete mathematics. Experience shall include the study of mathematical properties of finite sets and systems and linear programming.
- Calculus. Experience shall include multivariable calculus.
- Mathematical modeling
- Computer science, including two programming languages

## Secondary Education Science, MAEd

This program must be completed on a full-time basis.

### Program of Study - Secondary Science, MAEd

**First Semester - Summer (12 credits)**
CRIN 541 Teacher, Schools & Community (3)
EDUC F11 Social, Philosophical, Cultural, and Historical Foundations of Education (3) +
EDUC F12 Advanced Educational Psychology and Development (3)
CRIN 540 Teacher as Inquirer (3)

**Second Semester - Fall (15 credits)**
CRIN S04 Curriculum and Instructional Methods (Science) (3)
CRIN S05 Reading and Writing Across the Disciplines (3)
CRIN S31 Technology for STEM Integration (3)
CRIN S50 Introduction to the Characteristics of and Instructional Supports for Exceptional Students (3)++
CRIN S14 Clinical Experience in Secondary Schools (Science) (3)

**Third Semester - Spring (14 credits)**
CRIN S41 Curriculum Planning and Assessment (Science) (3)
CRIN S09 Classroom Organization, Management and Discipline (Secondary Education) (3)
CRIN L33 Internship in Supervised Teaching (Science) (8)

### Total Credit Hours: 41

*+If exempted from EDUC F11 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Child Abuse Recognition and Reporting for Virginia licensure.*

*++If exempted from CRIN S50 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Dyslexia training for Virginia licensure.*

### Additional Graduation Requirements

Students are required to achieve passing scores on assessments prescribed by the Virginia Board of Education, both for program completion and for licensure. Virginia's mandated licensure assessments are graduation requirements.

CPR/AED/First Aid Training - Candidates seeking initial license in Virginia are required to complete training in cardiopulmonary resuscitation, the use of an automated external defibrillator, and first aid. Training courses are available through national emergency care organizations such as the American Heart Association and the American Red Cross. Documentation of training (typically in the form of a current certification card) must be provided to the Office of Teacher Education and Community Engagement as part of the licensure application packet.

### Endorsement Courses for Science

Biology - The teacher candidate shall have earned a baccalaureate degree and completed a major in biology or 32 semester hours in biology and at least one course in each of the following areas: genetics,

biochemistry/molecular biology, cell biology, botany, zoology, anatomy/physiology, ecology, and evolutionary biology and other preparation consistent with the competencies for the endorsement.

Chemistry - The teacher candidate shall have earned a baccalaureate degree and completed a major in chemistry or 32 semester hours in chemistry, including at least one course in each of the following areas: inorganic chemistry, organic chemistry, physical chemistry, biochemistry, and analytical chemistry and other preparation consistent with the competencies required for the endorsement.

Earth Science - The teacher candidate shall have earned a baccalaureate degree and completed a major in Earth science, geology, or environmental science with a minimum of 32 semester hours in Earth sciences, including at least one course in each of the following areas: structural geology, petrology, paleontology, oceanography, meteorology, and astronomy/space science.

Physics - The teacher candidate shall have earned a baccalaureate degree and completed a major in physics or 32 semester hours in physics, including the following coursework: mechanics, electricity and magnetism, optics, and modern physics and other preparation consistent with the competencies required for the endorsement.

## Secondary Education Social Studies, MAEd

This program must be completed on a full-time basis.

### Program of Study - Secondary Social Studies

**First Semester - Summer (12 credits)**
CRIN 541 Teacher, Schools & Community (3)
EDUC F11 Social, Philosophical, Cultural, and Historical Foundations of Education (3) +
EDUC F12 Advanced Educational Psychology and Development (3)
CRIN 540 Teacher as Inquirer (3)

**Second Semester - Fall (15 credits)**
CRIN S00 Curriculum and Instructional Methods (Social Studies) (3)
CRIN S05 Reading and Writing Across the Disciplines (3)
CRIN S32 Digital Humanities (3)
CRIN S50 Introduction to the Characteristics of and Instructional Supports for Exceptional Students (3)++
CRIN S10 Clinical Experience in Secondary Schools (Social Studies) (3)

**Third Semester - Spring (14 credits)**
CRIN S42 Curriculum Planning and Assessment (Social Studies) (3)
CRIN S09 Classroom Organization, Management and Discipline (Secondary Education) (3)
CRIN L29 Internship in Supervised Teaching (Social Studies) (8)

### Total Credit Hours: 41

*+If exempted from EDUC F11 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Child Abuse Recognition and Reporting for Virginia licensure.*

*++If exempted from CRIN S50 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Dyslexia training for Virginia licensure.*

### Additional Graduation Requirements

Students are required to achieve passing scores on assessments prescribed by the Virginia Board of Education, both for program completion and for licensure. Virginia's mandated licensure assessments are graduation requirements.

CPR/AED/First Aid Training - Candidates seeking initial license in Virginia are required to complete training in cardiopulmonary resuscitation, the use of an automated external defibrillator, and first aid. Training courses are available through national emergency care organizations such as the American Heart Association and the American Red Cross. Documentation of training (typically in the form of a current certification card) must be provided to the Office of Teacher Education and Community Engagement as part of the licensure application packet.

### Endorsement Courses for History & Social Sciences

The teacher candidate shall have earned a baccalaureate degree and completed 51 semester hours of coursework distributed in each of the following areas:

- History: a major in history or 18 semester hours in history (shall include coursework in American history, Virginia history, and world history);
- Political science: a major in political science or 18 semester hours in political science, which shall include coursework in American government (state and local government);
- Geography: 9 semester hours; and
- Economics: 6 semester hours.

## Special Education, MAEd

The M.A.Ed. Program in Curriculum & Instruction with a concentration in Special Education-General Curriculum (K-12) prepares special education teachers to work in a variety of educational settings. Graduates of this program are qualified for licensure to teach K-12 students with varying disabilities (e.g., learning disabilities, emotional disabilities, intellectual disabilities, attention deficit-hyperactivity disorders, autism spectrum disorders) whose individual education programs are based on the general curriculum of the school district.

### Program of Study - Special Education, MAEd

**Pre-requisites (12 credits)**
EDUC F11 Social, Philosophical, Cultural, and Historical Foundations of Education (3)++
EDUC F12 Advanced Educational Psychology and Development (3)
EDUC F65 Research Methods in Education (3)
CRIN X48 Current Trends and Legal Issues in Educating Special Populations (3)

**Summer ( 3 credits)**
CRIN X53 Characteristics and Accommodations for Students with Mild/Moderate Disabilities in the General Curriculum (3)

**Fall (18 credits)**
CRIN X51 Language Development and Reading Instruction for Exceptional Students (3)*++

Select one of the following:

CRIN X52 Instructional Design/Methods for Students with Disabilities in the General Curriculum (3)*
CRIN X86 Advanced Teaching Strategies for Exceptional Students with Learning Problems (3)*

CRIN X56 Classroom Management and Positive Behavioral Supports for Students with Disabilities (3)*
CRIN X54 Characteristics and Adaptations for Students with Developmental Disabilities and Autism Spectrum Disorder (3)
CRIN E07 Elementary Mathematics Curriculum and Instruction (2)
CRIN X63 Special Education Student Teaching Seminar (1)
CRIN X16 Supervised Teaching in Special Education - Elementary Students with Disabilities in the General Curriculum (3)

*Students should take the Reading for Virginia Educator's assessment after completing CRIN X51.*

**Spring (16 credits)**
CRIN R11 Reading and Writing Across the Curriculum (3)
CRIN X59 Assessment for Instructional Design (3)
CRIN X87 Collaboration for Teaching and Learning (3)
CRIN X83 Individualized Education Program Transition Planning & Services (3)
CRIN X63 Special Education Student Teaching Seminar (1)
CRIN X17 Supervised Teaching in Special Education - Secondary Students with Disabilities in the General Curriculum (3)

### Total Credit Hours: 37

**Course must be completed with grade of B- or higher*

*++If exempted from EDUC F11 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Child Abuse Recognition and Reporting for Virginia licensure.*

*++If exempted from CRIN X51 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Dyslexia training for Virginia licensure.*

### Additional Graduation Requirements

Students are required to achieve passing scores on assessments prescribed by the Virginia Board of Education, both for program completion and for licensure. Virginia's mandated licensure assessments are graduation requirements.

CPR/AED/First Aid Training - Candidates seeking initial license in Virginia are required to complete training in cardiopulmonary resuscitation, the use of an automated external defibrillator, and first aid. Training courses are available through national emergency care organizations such as the American Heart Association and the American Red Cross. Documentation of training (typically in the form of a current certification card) must be provided to the Office of Teacher Education and Community Engagement as part of the licensure application packet.

## English as a Second Language (ESL) and Bilingual Education, MAEd

## Program of Study - ESL/Bilingual Education, MAEd

**Summer (12 credits)**
EDUC F11 Social, Philosophical, Cultural, and Historical Foundations of Education (3)++
EDUC F12 Advanced Educational Psychology and Development (3)
CRIN 519 Methods in Teaching ESL, PreK-12 (3)
CRIN 522 Cross-Cultural & Cross-Linguistic Communication for Educators (3)

**Fall (15-18 credits)**
CRIN 520 Understanding Language: Second Language Acquisition, Theory, and Practice (3)
CRIN 523 Bilingual Education and Dual Language Programs (3)
CRIN 524 ESL and Bilingual Education Practicum (3)

Select one of the following options:

CRIN X51 Language Development and Reading Instruction for Exceptional Students (3) Or
CRIN E03 Elementary Reading and Language Arts Curriculum and Instruction (5) and CRIN L03 Elementary Reading and Language Arts Curriculum and Instruction (Lab) (1)

**Spring (14 credits)**
CRIN 521 ESL Curriculum Design: Teaching ELLs in the U.S. (3)
CRIN 525 ESL Testing and Evaluation (3)
CRIN 526 Internship in Supervised Teaching ESL/Bilingual Education (8)

### Total Credit Hours: 41-44

*++If exempted from EDUC F11 for any reason, the student must notify the Office of Teacher Education & Community Engagement in order to complete a required training module in Child Abuse Recognition and Reporting for Virginia licensure*

### Additional Graduation Requirements

Students are required to achieve passing scores on assessments prescribed by the Virginia Board of Education, both for program completion and for licensure. Virginia's mandated licensure assessments are graduation requirements.

CPR/AED/First Aid Training - Candidates seeking initial license in Virginia are required to complete training in cardiopulmonary resuscitation, the use of an automated external defibrillator, and first aid. Training courses are available through national emergency care organizations such as the American Heart Association and the American Red Cross. Documentation of training (typically in the form of a current certification card) must be provided to the Office of Teacher Education and Community Engagement as part of the licensure application packet.

## English as a Second Language (ESL) Dual Endorsement Program

Students enrolled in the initial licensure programs (elementary, secondary, and special education) may add the English as a Second Language (ESL) endorsement to their license while completing the initial license program. The ESL endorsement is not a stand-alone degree program, nor is it open to non-degree seeking students. To be eligible for the ESL endorsement, students must successfully complete all requirements for their program (i.e., elementary, secondary, or special education) and must also successfully complete the following coursework and experiences:

### Program of Study - Dual Endorsement ESL/Bilingual Education

CRIN 518 ESL Dual Endorsement Practicum (1)
CRIN 519 Methods in Teaching ESL, PreK-12 (3)
CRIN 520 Understanding Language: Second Language Acquisition, Theory, and Practice (3)
CRIN 521 ESL Curriculum Design: Teaching ELLs in the U.S. (3)

Secondary Education students must also select one of the following:

CRIN X51 Language Development and Reading Instruction for Exceptional Students (3)
CRIN R08 Literacy Instruction for Diverse Learners (3)

### Total Credit Hours: 10-13

Additionally:

Students enrolled in an initial licensure program who are seeking ESL licensure must complete 150 clock hours* of direct instruction with ESL students in K-12 classrooms in addition to the prescribed assignments for CRIN 519, CRIN 520, and CRIN 521. These 150 clock hours must include experiences in elementary and middle/secondary settings. This requirement may be fulfilled in the practica and student teaching experiences associated with the elementary, secondary, or special education initial licensure program or through other experiences in accredited settings. Students must coordinate their field placements through the Office of Teacher Education and Professional Services in the School of Education for the fall and spring semesters and through the ESL Director during the summer.

*Students who pass the Praxis Subject Assessment for English to Speakers of Other Languages do not have to complete the 150 clock hour requirement.

## Certificate in Autism Spectrum Disorder

The nine-credit graduate certificate in autism offers current and in-training teachers and school professionals a comprehensive understanding of the characteristics and diagnostic criteria, instructional considerations, language and communication needs, and behavioral and social supports specific to students with autism.

### Program of Study - Autism Certificate

Delivered through face-to-face instruction on the W&M campus by expert faculty, the certificate provides a foundational understanding of autism as well as advanced classroom management skills, enhancing the repertoire of skills and understanding to manage severe and persistent problem behavior in the classroom. The program also offers a focus on collaboration, providing valuable skills to establish and maintain the positive collaborative relationships involved in the wrap-around service model most effective in supporting students with autism and other disabilities.

### Required Courses

In addition to coursework listed below, students complete 15 hours of fieldwork, which may consist of practicum and/or internships. All classes are offered in the evening to accommodate working professionals.

CRIN X54 Characteristics and Adaptations for Students with Developmental Disabilities and Autism Spectrum Disorder (3)

CRIN X57 Advanced Procedures in Classroom Management and Social Intervention (3)
CRIN X87 Collaboration for Teaching and Learning (3)*

*Current students in the School Psychology program can substitute EDUC P56 for this requirement.

**Total Credit Hours: 9**

### Admission
If you are not currently a graduate student at the School of Education, please submit an online application. (Information found on our SOE Admissions website.) Currently active, degree-seeking students in the School of Education do not need to complete the online application, they should submit the Autism Certificate Election Form, also found on the SOE website.

### Completion
Students must "Apply to Graduate" through the University Registrar's Office" for the semester of expected Certificate completion.

## C&I Courses

## Educational Policy, Planning & Leadership (EPPL)

- Degree Programs in EPPL
- EPPL Courses (EDUC and EPPL)
- Concentrations for Doctoral Programs
- Dissertation Committee
- EPPL Comprehensive Exams

### Master's Degree Programs
The Master's Degree program in Educational Leadership blends elements of well-grounded theoretical perspectives with innovative practices in the preparation of educational leaders for entry-level positions in educational organizations. The program offers two majors: PK-12 Administration & Supervision and Higher Education Administration.

### Doctoral Degree Programs
For those students who already hold a master's degree, we offer two options for advanced study:

- Our **Executive Ed.D**. is designed for the working practitioner.
- Our **Ph.D. programs** are intended for students interested in scholarly practice, research and/or teaching at the university level.

The Educational Policy, Planning and Leadership **doctoral programs** have the following components:

- Program Area Core Course Requirements
- Research Methodology courses (PhD) or Research Inquiry Courses (Executive Ed.D)
- Concentration Options
- Comprehensive Examination
- Dissertation

## Concentration for Doctoral Programs

The purpose of the concentration is to enable the student to develop in-depth knowledge and understanding of principles, concepts, theories, and practices in a particular area of Educational Policy, Planning and Leadership. Each student will be required to declare a concentration during the admission process.

For the **Executive Ed.D** program, there are concentration in K-12 Administration, Higher Education, Gifted Education, and School Psychology.

For the **Ph.D**. program, there are concentrations in K-12 Leadership, Curriculum & Learning Design, or Higher Education Administration

## Dissertation Committee - EPPL

In EPPL, the Dissertation Committee includes the Chair or Co-Chairs, and one or more additional members, with a minimum of three members. The composition of the Committee must include at least one member from the student's department. The following guidelines apply in eligibility to serve on doctoral committees.

- The Committee Chair must be a faculty member within the School of Education; a minimum of two members of the Committee must be faculty in the School of Education. For Ph.D. students, the committee chair must be a full-time tenured, tenure-eligible, or non-tenure-eligible faculty member from the student's department. A minimum of one member must be a faculty member in the student's program area.
- For Ed.D. students, the committee chair may be a tenured, tenure-eligible, or non-tenure-eligible affiliated faculty member who regularly teaches full- or part-time in the Ed.D. program. Affiliated faculty members will be approved using departmental-criteria. A list of approved affiliated faculty will be maintained by the School of Education Registrar. Affiliated faculty members may serve as chair on Ed.D. dissertations after serving as co-chair with a full-time faculty member on at least two successful dissertations.
- Members outside of the School of Education must be approved by the Committee Chair as committee members.
- The academic advisor originally assigned to the student for program planning may be invited by the student to serve on or chair the Committee, but inclusion of the academic advisor is not mandatory.
- All members of the Committee must have terminal degrees and are required to participate fully in review and assessment of the proposal and dissertation.

Students should complete the Dissertation Committee Approval form and obtain the signatures of each committee member. The completed form should be submitted to the School of Education Registrar. Changes in the composition of the dissertation committee, once it has been formed, may be requested by contacting the School of Education Registrar.

## EPPL Comprehensive Exams

### Format

The EPPL Comprehensive Exam is a five-calendar-day take-home exam comprising two sections: a section that requires knowledge, synthesis, and/or application of topics addressed in the four EPPL core courses (EPPL 601, 602, 603, and 604), and an article critique that assesses knowledge of research design and methods gained in the required research or inquiry courses.

In section one, students respond to a prompt based on topics and materials from the EPPL core curriculum. The focus is on integration and application of knowledge explored in the core courses (EPPL 601, 602, 603, and 604).

In section two, students produce a methodological critique of a scholarly article chosen from a set provided by the faculty. Key to the assessment of this portion of the exam response is the sophistication of the student's critique of the selected study's design, suggestions for improvement, and explanations of all points and suggestions made. Prior knowledge of the content addressed in the selected article is not required to write a successful response to this section of the exam.

**Eligibility**
Doctoral students are eligible to take the comprehensive exam after successful completion of the required EPPL core and research/inquiry courses. The exam can be taken prior to completion of Ph.D. advanced-level research electives (e.g., EDUC 700 and EPPL 765). The student must be enrolled for at least one credit hour during the semester when the exam is taken.

**Timing**
The comprehensive exam must be taken within one year of completing the required EPPL core and research/inquiry courses. The comprehensive exam must be passed within five years from the time that the student is admitted to doctoral study.

**Evaluation**
Each comprehensive exam will be read independently by two EPPL faculty members, with a third reader assigned if there is a discrepancy between the assessments of the first two readers. Exams will be evaluated using blind review and on a pass/fail/honors basis. A unanimous vote is required for an honors designation; a majority is necessary for pass or fail evaluations. The review of exam responses will be completed within three weeks from the last day of the exam period. The designated review committee chair will notify the EPPL department chair of the evaluation results. The department chair will then inform the Office of Academic Programs, which subsequently will notify the student.

If any part of the exam receives a "fail" evaluation, the designated committee chair will provide feedback to the student's program advisor, including recommendations for addressing deficiencies. A second exam will be scheduled during the next exam period for the portion(s) of the exam that were failed. If the student fails either section of the comprehensive exam twice, the student will be withdrawn from the program.

**More information regarding policies for doctoral students can be found on the Doctoral Policies page.**

## SOE: Educational Policy, Planning & Leadership (EPPL) Degree Programs

**Masters Degree Programs**

- Educational Leadership, PK-12 Administration, MEd
- Higher Education Administration, MEd
- Combined Degree - MEd in Higher Education & MBA

**PhD Programs**

- EPPL- K-12 Leadership, PhD
- EPPL- Curriculum & Learning Design, PhD
- EPPL- Higher Education Administration, PhD
- Combined Degree- PhD in EPPL Higher Education & MBA

**Executive EdD Programs**

- EPPL-Executive Ed.D. in K-12 Administration
- EPPL-Executive Ed.D. in Gifted Administration
- EPPL-Executive Ed.D. in Higher Education Administration
- EPPL-Executive Ed.D in School Psychology

## Educational Leadership, PK-12 Administration, MEd

The M.Ed. program in Educational Leadership, PK-12 Administration is only offered to students working through their school divisions to become part of a sponsored cohort. Interested students should contact their school division. This program is offered in a hybrid format.

### Program of Study for Ed Leadership PK12 Admin

**Fall 1 (6 credits)**
EPPL 501 Educational Leadership and Organizational Dynamics (3)
EPPL 502 Educational Leadership: Concepts and Cases (3)

**Spring 2 (6 credits)**
EPPL 534 Instructional Leadership: Administering Educational Programs (3)
EPPL 535 Instructional Leadership: Assessment and Evaluation (3)

**Summer 1 (4 credits)**
EPPL 586 Internship in Administration & Supervision (PK-12) I (1-3)*
EPPL 642 Leadership for School, Family and Community Partnerships (3)
**Only one credit of internship will be taken during summer 1.*

**Fall 2 (6 credits)**
EPPL 640 Administration and Supervision of Special Education (3)
EPPL 660 Educational Law (3)

**Spring 2 (6 credits)**
EPPL 536 Instructional Leadership: Supervision and Professional Development (3)
EPPL 550 The Principalship: Managing Instructional Resources (3)

### Summer 2 (5 credits)

EPPL 643 Human Resources Administration (3)
EPPL 586 Internship in Administration & Supervision (PK-12) I (1-3)*
**2 credits of internship will be taken summer 2.*

### Total Credit Hours: 33

## Higher Education Administration, MEd

The M.Ed. Program in Higher Education Administration is designed to prepare students for leadership and service positions in colleges, universities, community colleges, government agencies, research agencies, educational associations, and other post-secondary educational settings.

### Program of Study - Higher Education, MEd

Suggested course sequence for full-time students

**Fall 1 (9)**
EPPL 628 The History of Higher Education (3)
EPPL 619 Organizational Theory & Change (3)
EPPL/EDUC Professional Focus course (3)*

**Spring 1 (9)**
EPPL 525 Assessment and Evaluation to Promote College Student Learning (3)
EPPL 620 Understanding and Facilitating Learning in Higher Education (3)
EPPL/EDUC Professional Focus course (3)*

**Fall 2 (9)**
EDUC 603 The College Student: Developmental Themes and Social Contexts (3)
EPPL 599A Educational Research for Practice (3)
EPPL/EDUC Professional Focus course (3)*

**Spring 2 (9)**
EPPL 599B Master's Project (3)
EPPL 585 Internship in Higher Education (3)
EPPL/EDUC Professional Focus course (3)*

### *Professional Focus

Students with assistance from their advisor create a professional focus by combining a minimum of twelve credits (four courses) that provide knowledge and skills as background for professional employment. Examples of professional foci include: Academic Services, Advancement in Higher Education, Multicultural Affairs, Recreational Services, Student Services, and Substance Abuse Programs and Services.

### Total Credit Hours: 36

## Combined Degree Program MEd Higher Education & MBA

The combined degree program for the M.Ed. in Higher Education Administration with the Master of Business Administration (MBA) allows students to obtain both an M.Ed. and an MBA degree in three years, instead of the four years that would be required if each were pursued separately. Candidates interested in this combined degree program must apply to and gain acceptance by both the Graduate School of Education and the Mason School of Business.

### Program of Study - Combined Program - MEd Higher Education/MBA

### MEd Core Component

**Fall 1 (9)**
EDUC 603 The College Student: Developmental Themes and Social Contexts (3)
EPPL 620 Understanding and Facilitating Learning in Higher Education (3)
EPPL 628 The History of Higher Education (3)

**Spring 1 (9)**
EPPL 525 Assessment and Evaluation to Promote College Student Learning (3)
EPPL/EDUC Professional Focus course (3)*
EPPL/EDUC Professional Focus course (3)*

### *Professional Focus (6)
Students with assistance from their advisor create a professional focus by combining a minimum of tsix credits that provide knowledge and skills as background for professional employment. Examples of professional foci include: Academic Services, Advancement in Higher Education, Multicultural Affairs, Recreational Services, Student Services, and Substance Abuse Programs and Services.

### Culminating Experiences - Year 3 (6)
EPPL 599B Master's Project (3)
EPPL 585 Internship in Higher Education (3)
EPPL 619 Organizational Theory & Change (3)

### Total MEd Credits: 24

## MBA Component

Required MBA Classes

**Fall Semester (18 credits)**
BUAD 5011 Communicating for Results (2)
BUAD 5101 Financial Accounting and Disclosure (2)
BUAD 5301 Financial Management (2)
BUAD 5401 Marketing Management (2)
BUAD 5501 Organizational Behavior & Process (2)
BUAD 5701 Data Analysis (2)
BUAD 5721 Economic Analysis & Insights (2)
BUAD 5801 Leadership Development & Ethics (LDE) (2)
BUAD 5931 Charting your MBA Career (.5)
BUAD 5951 Sprint (1)

**Spring Semester (15)**
BUAD 5111 Accounting for Decision Making (2)
BUAD 5211 IT Infrastructure and Business Transformation (2)
BUAD 5601 Operations and Supply Chain Management (2)
BUAD 5901 Global Competitive Strategy (2)
BUAD 5941 Bus, Govt, & Global Economy (2)
BUAD 5951 Sprint (1)
BUAD 6971 Independent Study (0-6) (2 credits)
BUAD 6971 Independent Study (0-6) (2 credits)

**MBA Component - Year 3 (12.5)**

BUAD 6XXX - MBA Electives (12.5)

Select electives in consultation with the advisor

**Total MBA Credits: 45.5**

## Total Credit hours for combined degree: 69.5

### Graduation
A student earning a Combined Degree must complete BOTH requirements before either degree is earned. Student must file a Notice of Candidacy for Graduation with the University Registrar's Office for the Combined Degree by the established deadlines the fall prior to graduation.

### Required Survey
EPPL degree program students will need to complete an Online Exit Survey during the final semester for which you are registered. The School of Education Assessment & Accreditation Manager will contact you about a month before you graduate with more information.

## EPPL- K-12 Leadership, PhD

### Program of Study - EPPL K-12 Leadership PhD

### Pre-requisite
EDUC F65 Research Methods in Education (3)

### Core Component (12 credits)
EPPL 601 Educational Policy: Development and Analysis (3)
EPPL 602 Educational Planning (3)
EPPL 603 Leadership in Education (3)
EPPL 604 Cross Disciplinary Perspectives in Educational Theory, Research and Practice (3)

### Research Component (15 credits)
EDUC 663 Quantitative Research Design & Methods I (3)
EDUC 665 Quantitative Research Design & Methods II (3)
EDUC 694A Qualitative Research Design & Methods, Part I (3)

EDUC 694B Qualitative Research Design & Methods, Part II (3)
Advanced Research Course (3)
*Select an additional advanced methods course in consultation with advisor.*

### Concentration (21 credits)
EPPL 635 Advanced Organizational Theory and Governance of Higher Education (3)*
EPPL 651 Designing and Developing Curriculum (3)
EPPL 690 Researching Social Processes in K-12 Schools (3)*
EPPL 733 Seminar on Legal Issues in Education (3)
EPPL 742 Seminar on Teacher and Leader Effectiveness (3)*
EPPL 753 Leadership for Social Justice, Equity & Excellence (3)
**Offered every other year*

Pick one of the Following:
EPPL 760 Independent Study in Educational Policy, Planning and Leadership (Var 1-6)
EPPL 775 Doctoral Internship in University Teaching (3)

### Cognate (12 credits)
Students will select one or more cognate areas to broaden the knowledge base and provide additional areas of specialization. Students may select 6 hours int two cognate areas, or 12 hours in one area. courses listed in more that one cognate or concentration area can be used to satisfy only one requirement. Student should discuss potential cognate areas with the faculty advisor.

### Culminating Experience (9 credits)
EPPL 790 Educational Policy, Planning and Leadership Research Seminar (3)
EDUC 800 Dissertation (1-9)*
**6 credits of Dissertation are required for the degree.*

### Total Credit Hours: 69

### Additional Graduation Requirements
Committee Approved Dissertation must be uploaded for publishing to ProQuest by the semester deadline established by the Office of Academic Programs prior to graduation.

The Survey of Earned Doctorates must be completed by the semester deadline established by the Office of Academic Programs prior to graduation.

## EPPL - Curriculum & Learning Design, PhD

### Program of Study - Curiculum & Learning Design, PhD

### Pre-requisite
EDUC F65 Research Methods in Education (3)

### Core Component (12 credits)
EPPL 601 Educational Policy: Development and Analysis (3)
EPPL 602 Educational Planning (3)
EPPL 603 Leadership in Education (3)
EPPL 604 Cross Disciplinary Perspectives in Educational Theory, Research and Practice (3)

### Research Component (15 credits)
EDUC 663 Quantitative Research Design & Methods I (3)
EDUC 665 Quantitative Research Design & Methods II (3)
EDUC 694A Qualitative Research Design & Methods, Part I (3)
EDUC 694B Qualitative Research Design & Methods, Part II (3)
Advanced Research Class (3)

*(students should discuss potential advanced methods class with the faculty advisor)*

### Concentration Required Courses (21 credits)
EPPL 651 Designing and Developing Curriculum (3)
EPPL 652 Engaging Students in Learning (3)

EPPL 653 Designing for Learning (3)
EPPL 654 Assessing Learning (3)
EPPL 655 Learning in Context (3)
EPPL 656 Leveraging Technology for Learning (3)
EPPL 657 Evaluating Curriculum and Learning Design (3)

### Cognate (9 credits)

In consultation with the advisor, each student will select and design a 9 credit hour cognate area to broaden and deepen the knowledge base and provide additional areas of specialization. Suggested cognates are listed below:

**Educational Technology**
EPPL 680 Teaching and Learning in Digital Spaces (3)
EPPL 681 Designing and Supporting Professional Learning (3)
Elective (3)

**Curriculum Leadership**
EPPL 686 Readings and Research in Curriculum (3)
EPPL 741 Critical Issues in Curriculum, Instruction, & Assessment (3)
Elective (3)

**K-12 Leadership**
EPPL 742 Seminar on Teacher and Leader Effectiveness (3)
EPPL 753 Leadership for Social Justice, Equity & Excellence (3)
Elective (3)

### Culminating Experience

EPPL 790 Educational Policy, Planning and Leadership Research Seminar (3)
EDUC 800 Dissertation (1-9)

### Total Credit Hours: 69

### Additional Graduation Requirements

Committee Approved Dissertation must be uploaded for publishing to ProQuest by the semester deadline established by the Office of Academic Programs prior to graduation.

The Survey of Earned Doctorates must be completed by the semester deadline established by the Office of Academic Programs prior to graduation.

## EPPL- Higher Education Administration, PhD

## Program of Study - Higher Education, PhD

### Pre-requisite

EDUC F65 Research Methods in Education (3)

### Core Component (12 credits)

EPPL 601 Educational Policy: Development and Analysis (3)
EPPL 602 Educational Planning (3)

EPPL 603 Leadership in Education (3)
EPPL 604 Cross Disciplinary Perspectives in Educational Theory, Research and Practice (3)

**Research Component (15 credits)**
EDUC 663 Quantitative Research Design & Methods I (3)
EDUC 665 Quantitative Research Design & Methods II (3)
EDUC 694A Qualitative Research Design & Methods, Part I (3)
EDUC 694B Qualitative Research Design & Methods, Part II (3)
Advanced Research Course (3)
*Select an additional advanced methods course in consultation with advisor.*

**Concentration (21 credits)**
Required Courses (12 credits)
EDUC 603 The College Student: Developmental Themes and Social Contexts (3)
EPPL 613 The Academic Life (3)
EPPL 628 The History of Higher Education (3)
EPPL 635 Advanced Organizational Theory and Governance of Higher Education (3)

Elective Courses (9)
*Select (9) additional credits of higher education courses in consulation with the advisor*

**Cognate (12 credits)**
Students will select one or more cognate areas to broaden the knowledge base and provide additional areas of specialization. Students may select 6 hours int two cognate areas, or 12 hours in one area. courses listed in more that one cognate or concentration area can be used to satisfy only one requirement. Student should discuss potential cognate areas with the faculty advisor.

**Culminating Experience (9 credits)**
EPPL 790 Educational Policy, Planning and Leadership Research Seminar (3)
EDUC 800 Dissertation (1-9)*
**6 credits of Dissertation are required for the degree.*

**Total Credit Hours: 69**

**Additional Graduation Requirements**
Committee Approved Dissertation must be uploaded for publishing to ProQuest by the semester deadline established by the Office of Academic Programs prior to graduation.

The Survey of Earned Doctorates must be completed by the semester deadline established by the Office of Academic Programs prior to graduation.

## Combined Degree- PhD in EPPL Higher Education & MBA

The combined program for the Ph.D. in Higher Education Administration with the- MBA allows students to obtain both a Ph.D. and a MBA degree in five years, instead of the six years that would be required if each were pursued separately. Candidates interested in this combined degree program must apply to and gain acceptance by both the Graduate School of Education and the Mason School of Business MBA program.

## Program of Study - Combined Program - PhD Higher Education/MBA

### PhD Component

**Core Component (12 credits)**
EPPL 601 Educational Policy: Development and Analysis (3)
EPPL 602 Educational Planning (3)
EPPL 603 Leadership in Education (3)
EPPL 604 Cross Disciplinary Perspectives in Educational Theory, Research and Practice (3)

**Research Component (9 credits)**
EDUC 663 Quantitative Research Design & Methods I (3)
EDUC 694A Qualitative Research Design & Methods, Part I (3)
EDUC 694B Qualitative Research Design & Methods, Part II (3)

**Concentration (15 credits)**
Required Courses (9 credits)
EDUC 603 The College Student: Developmental Themes and Social Contexts (3)
EPPL 613 The Academic Life (3)
EPPL 628 The History of Higher Education (3)

Elective Courses (6 credits)
*Select 6 additional credits of higher education courses in consultation with the advisor*

**Culminating Experience (9 credits)**
EPPL 790 Educational Policy, Planning and Leadership Research Seminar (3)
EDUC 800 Dissertation (1-9)*
**6 credits of Dissertation are required for the degree.*

**Total Credits for PhD: 45**

### MBA Component

Required MBA Classes

**Fall Semester (18 credits)**
BUAD 5011 Communicating for Results (2)
BUAD 5101 Financial Accounting and Disclosure (2)
BUAD 5301 Financial Management (2)
BUAD 5401 Marketing Management (2)
BUAD 5501 Organizational Behavior & Process (2)
BUAD 5701 Data Analysis (2)
BUAD 5721 Economic Analysis & Insights (2)
BUAD 5801 Leadership Development & Ethics (LDE) (2)
BUAD 5931 Charting your MBA Career (.5)
BUAD 5951 Sprint (1)

**Spring Semester (15)**
BUAD 5111 Accounting for Decision Making (2)
BUAD 5211 IT Infrastructure and Business Transformation (2)
BUAD 5601 Operations and Supply Chain Management (2)

BUAD 5901 Global Competitive Strategy (2)
BUAD 5941 Bus, Govt, & Global Economy (2)
BUAD 5951 Sprint (1)
BUAD 6971 Independent Study (0-6) (2 credits)
BUAD 6971 Independent Study (0-6) (2 credits)
MBA Component - Year 3 (15.5)
BUAD 6XXX - MBA Electives (15.5)
*Select electives in consultation with the advisor*

**Total MBA Credits: 48.5**

### Total Credit hours for combined degree: 93.5

### Graduation

A student earning a Combined Degree must complete BOTH requirements before either degree is earned. Student must file a Notice of Candidacy for Graduation with the University Registrar's Office for the Combined Degree by the established deadlines the fall prior to graduation.

### Additional PhD Graduation Requirements

Committee Approved Dissertation must be uploaded for publishing to ProQuest by the semester deadline established by the Office of Academic Programs prior to graduation.

The Survey of Earned Doctorates must be completed by the semester deadline established by the Office of Academic Programs prior to graduation.

## EPPL-Executive Ed.D. in K-12 Administration

The Executive Ed.D. in K-12 Administration offers an alternative to the traditional delivery model for the doctorate degree without sacrificing the quality education historically associated with William & Mary. Courses are taught in a format that better meets the needs of working practitioners and is designed for educators with Master's Degrees who are currently in administrative roles.

### Program of Study for Ex EdD in K-12 Administration

**Summer 1 (9 credits)**
EPPL 601 Educational Policy: Development and Analysis (3)
EPPL 602 Educational Planning (3)
EPPL 603 Leadership in Education (3)

**Fall 1 (6 credits)**
EDUC 651 Inquiry I: Data-Based Decision Making (3)
EDUC 653 Inquiry III: Program Evaluation (3)

**Spring 1 (6 credits)**
EDUC 652 Inquiry II: Action Research (3)
EPPL 604 Cross Disciplinary Perspectives in Educational Theory, Research and Practice (3)

**Summer 2 (9 credits)**
EPPL 622 Leading for Learning: Curriculum and Assessment (3)
EPPL 645 Executive Leadership in Organizations (3)

EPPL 734 Seminar in Human Resource Leadership in Education (3)

**Fall 2 (7 credits)**
*EPPL Comprehensive Exam should be taken during Fall 2*
EPPL 623 Leading for Learning: Teaching and Learning (3)
EPPL 633 Planning and Management in School Finance and Facilities (3)
EPPL 781 Executive Ed.D. Program Research Seminar I (1)

**Spring 2 (8 credits)**
EPPL 733 Seminar on Legal Issues in Education (3)
EPPL 753 Leadership for Social Justice, Equity & Excellence (3)
EPPL 782 Executive Ed.D. Program Research Seminar II (2)

**Summer 3 - Spring 3 (6 credits)**
EPPL 801 Dissertation Study (1-6)

### Total Credit Hours: 51

### Additional Graduation Requirement
Committee Approved Dissertation must be uploaded for publishing to ProQuest by the semester deadline established by the Office of Academic Programs prior to graduation.

## EPPL-Executive Ed.D. in Gifted Administration

The Executive Ed.D. in Gifted Administration offers an alternative to the traditional delivery model for the doctorate degree without sacrificing the quality education historically associated with William & Mary. Courses are taught in a format that better meets the needs of working practitioners and is designed for educators with Master's Degrees who are currently in administrative roles.

### Program of Study for Ex EdD in Gifted Administration

**Summer 1 (9 credits)**
EPPL 601 Educational Policy: Development and Analysis (3)
EPPL 602 Educational Planning (3)
EPPL 603 Leadership in Education (3)

**Fall 1 (6 credits)**
EDUC 651 Inquiry I: Data-Based Decision Making (3)
EDUC 653 Inquiry III: Program Evaluation (3)

**Spring 1 (6 credits)**
EDUC 652 Inquiry II: Action Research (3)
EPPL 604 Cross Disciplinary Perspectives in Educational Theory, Research and Practice (3)

**Summer 2 (9 credits)**
EPPL 612 Curriculum and Instruction for Gifted Learners (3)
EPPL 645 Executive Leadership in Organizations (3)
EPPL 670 Programs and Models in Gifted Education (3)

**Fall 2 (7 credits)**

*EPPL Comprehensive Exam should be taken during Fall 2*
EPPL 650 Developmental Perspectives in Gifted Education (3)
EPPL 712 Administration and Policy Issues in Gifted Education (3)
EPPL 781 Executive Ed.D. Program Research Seminar I (1)

**Spring 2 (8 credits)**
EPPL 733 Seminar on Legal Issues in Education (3)
EPPL 753 Leadership for Social Justice, Equity & Excellence (3)
EPPL 782 Executive Ed.D. Program Research Seminar II (2)

**Summer 3 - Spring 3 (6 credits)**
EPPL 801 Dissertation Study (1-6)

### Total Credit Hours: 51

### Additional Graduation Requirement
Committee Approved Dissertation must be uploaded for publishing to ProQuest by the semester deadline established by the Office of Academic Programs prior to graduation.

## EPPL-Executive Ed.D. in Higher Education Administration

The Executive Ed.D. in Higher Education Administration offers an alternative to the traditional delivery model for the doctorate degree without sacrificing the quality education historically associated with William & Mary. Courses are taught in a format that better meets the needs of working practitioners and is designed for educators with Master's Degrees who are currently in administrative roles.

### Program of Study for Ex EdD in Higher Education Adm

**Summer 1 (9 credits)**
EPPL 601 Educational Policy: Development and Analysis (3)
EPPL 602 Educational Planning (3)
EPPL 603 Leadership in Education (3)

**Fall 1 (6 credits)**
EDUC 651 Inquiry I: Data-Based Decision Making (3)
EDUC 653 Inquiry III: Program Evaluation (3)

**Spring 1 (6 credits)**
EDUC 652 Inquiry II: Action Research (3)
EPPL 604 Cross Disciplinary Perspectives in Educational Theory, Research and Practice (3)

**Summer 2 (9 credits)**
EPPL 615 Higher Education Operations Management (3)
EPPL 645 Executive Leadership in Organizations (3)
EPPL 676 The Financing of Higher Education (3)

**Fall 2 (7 credits)**
*EPPL Comprehensive Exam should be taken during Fall 2*
EPPL 619 Organizational Theory & Change (3)
EPPL 620 Understanding and Facilitating Learning in Higher Education (3)

EPPL 781 Executive Ed.D. Program Research Seminar I (1)

**Spring 2 (8 credits)**
EPPL 621 Intergration of Learning (3)
EPPL 753 Leadership for Social Justice, Equity & Excellence (3)
EPPL 782 Executive Ed.D. Program Research Seminar II (2)

**Summer 3 - Spring 3 (6 credits)**
EPPL 801 Dissertation Study (1-6)

### Total Credit Hours: 51

### Additional Graduation Requirement
Committee Approved Dissertation must be uploaded for publishing to ProQuest by the semester deadline established by the Office of Academic Programs prior to graduation.

## EPPL-Executive Ed.D in School Psychology

The Executive Ed.D. in School Psychology offers an alternative to the traditional delivery model for the doctorate degree without sacrificing the quality education historically associated with William & Mary. Courses are taught in a format that better meets the needs of working practitioners and is designed for educators with Master's Degrees who are currently in administrative roles.

### Program of Study for Ex EdD in School Psychology

**Summer 1 (9 credits)**
EPPL 601 Educational Policy: Development and Analysis (3)
EPPL 602 Educational Planning (3)
EPPL 603 Leadership in Education (3)

**Fall 1 (6 credits)**
EDUC 651 Inquiry I: Data-Based Decision Making (3)
EDUC 653 Inquiry III: Program Evaluation (3)

**Spring 1 (6 credits)**
EDUC 652 Inquiry II: Action Research (3)
EPPL 604 Cross Disciplinary Perspectives in Educational Theory, Research and Practice (3)

**Summer 2 (9 credits)**
EPPL 623 Leading for Learning: Teaching and Learning (3)
EPPL 640 Administration and Supervision of Special Education (3)
EPPL 720 Seminar in School Neuropsychology (3)

**Fall 2 (7 credits)**
*EPPL Comprehensive Exam should be taken during Fall 2*
EPPL 633 Planning and Management in School Finance and Facilities (3)
EPPL 721 Leading for Change: Evidence-based Intervention & Interpretation (3)
EPPL 781 Executive Ed.D. Program Research Seminar I (1)

**Spring 2 (8 credits)**

EPPL 722 Advanced Psychoeducational Assessment & Evaluation (3)
EPPL 733 Seminar on Legal Issues in Education (3)
EPPL 782 Executive Ed.D. Program Research Seminar II (2)

**Summer 3 - Spring 3 (6 credits)**
EPPL 801 Dissertation Study (1-6)

**Total Credit Hours: 51**

### Additional Graduation Requirement:

Committee Approved Dissertation must be uploaded for publishing to ProQuest by the semester deadline established by the Office of Academic Programs prior to graduation.

## EPPL Courses

## School Psychology & Counselor Education (SPACE)

- Degree Programs in SPACE
- SPACE Courses (EDUC)
- Licensure in Counseling
- The Counseling Clinics
- Comprehensive/Doctoral Committee
- Doctoral Comprehensive Examinations-SPACE

### School Psychology

The school psychology program incorporates a developmental course of study that ensures students' learning is appropriately sequenced and coordinated with relevant practical experiences. The school psychology program curriculum has been structured with three major emphases: (1) psychological and educational foundations; (2) clinical training in assessment linked to intervention, consultation & collaboration, and prevention & intervention; and (3) effective application of skills in school settings.

### CACREP Accredited Counseling Programs

The M.Ed. Program in Counseling is organized into a series of required educational and research foundation courses, basic counseling courses, and specialized courses that enable a student to concentrate in Clinical Mental Health Counseling, Clinical Mental Health & Addictions Counseling, School Counseling or Couples, Marriage & Family Counseling. In addition, graduate students can pursue an online Master of Education (M.Ed.) in Clinical Mental Health Counseling, Military and Veteran's Counseling or School Counseling. All M.Ed. programs include intensive practicum and internship experiences that provide students with substantial opportunities to develop their clinical skills under qualified supervision. The goal of the M.Ed. program is to prepare students to become competent and qualified professional counselors, leaders and advocates for those they serve in public and private schools and community mental health settings.

The Doctoral program in Counselor Education is designed to evaluate the theory and practice of counseling through quantitative and qualitative research and to prepare educators and leaders in the field of counseling. Students take doctoral seminars in selected counseling research topics, courses in statistics and research, a counseling practicum, a counselor education internship, and electives approved by their advisors. The goal of the doctoral program is to encourage students to extend their abilities in creative

didactic and experiential activities, while developing critical thinking skills and a focused research agenda.

## Licensure in Counseling

### Professional Counselor in Virginia (LPC)

At this time in Virginia, licensure as a Professional Counselor requires a master's level degree in counseling, 60 hours of graduate course work in counseling, a 3400-hour, post-master's clinical residency, and successful completion of the licensure examination. The programs of study for all of the M.Ed. degrees in Counseling at William & Mary includes all the required areas of classroom and clinical instruction needed for licensure as a Professional Counselor in Virginia and most states.

**Substance Abuse Treatment Practitioner in Virginia (LSATP)**

The program of studies for the Community & Addictions Counseling program also meets the coursework and clinical instruction requirements for licensure in Virginia as a Substance Abuse Treatment Practitioner.

**Certified Substance Abuse Counselor in Virginia (CSAC)**

The program of studies for the Community & Addictions Counseling program also meets the coursework and clinical instruction requirements for licensure in Virginia as a Substance Abuse Treatment Practitioner.

**Marriage & Family Therapist in Virginia**

The program of studies for the Family Counseling program also meets the coursework and clinical instruction requirements for licensure in Virginia as a Marriage & Family Therapist and most other states. For more information about licensing requirements by the state of Virginia: http://www.dhp.virginia.gov/counseling/.

## The Counseling Clinics

The Counseling Program features a teaching clinic offering state-of-the-art clinical training for students and providing two vital services to the William & Mary and surrounding communities. The New Horizons Family Counseling Center is the product of the collaborative efforts of New Horizons Regional Educational Center and the William & Mary School of Education. The New Leaf Clinic provides brief counseling (6-10 sessions), two session assessment and feedback sessions, and group counseling to students at William & Mary with issues related to the use of alcohol or other drugs.

## Comprehensive/Doctoral Committee - SPACE

The Comprehensive/Doctoral Committee includes the Chair or Co-Chairs, and one to two additional members, with a minimum of three members. The members of the Committee, initially selected for the Comprehensive Examination process, ideally should remain on the Doctoral Committee throughout the dissertation and final defense. The composition of the Committee should include at least one member from the student's department, and at least one member from outside the primary field of study. The Chair of the Committee must be a faculty member in the School of Education; a minimum of two members of the Committee must be faculty members in the School of Education. Members outside of the School of Education must be approved by the Committee Chair. The appointed academic advisor may be selected by the student to serve on or chair the Committee, but inclusion of the academic advisor is not mandatory. All members of the Committee must have a terminal degree and are required to participate fully in review and assessment of written and oral examinations and in the dissertation process. The Chair should ensure that current or recent supervisory and collegial relationships between Committee members and the student are avoided.

## Doctoral Comprehensive Examinations- SPACE

### Eligibility

A student is considered eligible to take the doctoral comprehensive during or immediately following the final semester of required course work, or within six hours of completion of the courses listed on the plan of study, excluding dissertation hours. Completion of EDUC 663, EDUC 664 and EDUC 665 is recommended prior to the semester in which the comprehensive examination is taken.

### Comprehensive/Doctoral Committee

The Comprehensive/Doctoral Committee includes the Chair or Co-Chairs, and one to two additional members, with a minimum of three members. The Chair of the Committee must be a faculty member in the School of Education; a minimum of two members of the Committee must be faculty members in the School of Education. Members outside of the School of Education must be approved by the Committee Chair.

In SPACE, the members of the Committee, initially selected for the Comprehensive Examination process, ideally should remain on the Doctoral Committee throughout the dissertation and final defense. (The composition of the Committee should include at least one member from the primary field, and at least one member from outside the primary field of study.)

The appointed academic advisor may be selected by the student to serve on or chair the Committee, but inclusion of the academic advisor is not mandatory. All members of the Committee must have a terminal degree and are required to participate fully in review and assessment of written and oral examinations and in the dissertation process. The Chair should ensure that current or recent supervisory and collegial relationships between Committee members and the student are avoided.

The Comprehensive Examination consists of the Standard Written Examination, the Candidacy Paper, and the Oral Examination based primarily upon the Candidacy Paper.

### The Standard Examination

The Doctoral Program faculty design essay questions representing areas of study that are central to doctoral study in the field. The questions require a demonstration of breadth of knowledge and call for description and analysis of central issues in the primary field of study and supporting fields or cognate areas as deemed appropriate by the Area faculty.

### The Candidacy Paper

The Candidacy Paper serves as the focus for the Oral Examination. The purpose of the paper is to demonstrate an in-depth critical analysis coupled with appropriate or original interpretations and applications of the topic under consideration. The student must submit an outline for the paper to the Chair within two weeks of receiving an evaluation of Pass or Honors for the Standard Written Exam. Within two weeks following submission, the Committee must accept the topical outline or may request a revised submission by the student. Upon approval, the Committee Chair will file the appropriate form with the Office of Academic Programs. Students must certify in an Honor Code statement that the paper is a substantially new product which may draw upon previous work, but represents fresh perspectives. The paper will be between fifteen and twenty narrative pages [6000 to 9000 words] in a topic area highly relevant to the primary field of study and follow standard APA style requirements. The paper must be completed within four weeks. During this period, faculty contact is limited to brief consultation on the process but not the substance of the paper. Ideally, the paper will be of publishable quality.

**The Oral Examination**
The Oral Examination will be facilitated by the Chair of the Committee, and all members of the Committee must attend. The oral examination focuses on verbal presentation of the content of the Candidacy Paper, as well as any other relevant content areas that are identified by the Committee and submitted to the student.

Note: Students who fail to pass any section of the Counselor Education Comprehensive Exam two times will be dismissed from the program.

**Honors Designation**
In order for a student to receive the Honors designation on the transcript for the comprehensive exams, all components (the standard exam, the candidacy paper, and the oral exam) must be judged at the Honors level. The Honors designation will be announced at the time of graduation during the recognition of degrees at the School of Education graduation ceremony.

**More information regarding policies for doctoral students can be found on the Doctoral Policies page.**

## SOE: School Psychology & Counselor Education (SPACE) Programs

**Counseling Programs**

- Clinical Mental Health Counseling, MEd
- Clinical Mental Health & Addictions Counseling, MEd
- School Counseling, MEd
- Couples, Marriage & Family Counseling, MEd
- Counselor Education PhD

**Online Counseling Programs**

- Online- Clinical Mental Health Counseling, MEd
- Online- School Counseling, MEd
- Online - Military Veterans Counseling, MEd

**School Psychology Programs**

- School Psychology, MEd
- School Psychology, EdS

## Clinical Mental Health Counseling, MEd

### Program of Study - Clinical Mental Health Counseling
Sequence for Full-Time Students

### Fall 1 (15 credits)
EDUC C32 Theories of Counseling and Psychotherapy (3)
EDUC C33 Techniques of Counseling (3)
EDUC C34 Group Theory and Techniques (3)
EDUC C43 Professional, Ethical and Legal Issues in Counseling (3)
Required Elective (3)

### Spring 1 (12 credits)
EDUC 627 Marriage and Family Counseling (3)
EDUC F65 Research Methods in Education (3)

EDUC C42 Supervised Practicum in Counseling (3)
EDUC 624 Theory and Practice of Multi-Cultural Counseling (3)

**Summer Year 1 (9 credits)**
EDUC C46 Contemporary Issues in Clinical Mental Health Counseling (3)
EDUC 625 Couples Counseling and Sex Therapy (3)
EDUC 645 The Counselor and Psychopathology (3)

**Fall 2 (12 credits)**
EDUC F67 Psychological and Educational Measurement (3)
EDUC C29 Substance Abuse and Society (3)
EDUC C47 Internship in Clinical Mental Health Counseling (3)
Required Elective (3)

**Spring 2 (12 credits)**
EDUC F09 Human Growth and Development: A Life-Span Perspective (3)
EDUC C47 Internship in Clinical Mental Health Counseling (3)
EDUC C31 Career Development (3)
Elective (3)

**Total Credit Hours: 60**
**Culminating Experience**
This internship experience constitutes the culminating activities for this program. To qualify for the degree, students must satisfactorily complete two semesters of EDUC C47.

**Required Survey**
Counseling students are required to complete an online exit survey during the final semester.

## Clinical Mental Health & Addictions Counseling, MEd

**Program of Study for Clinical Mental Health Addictions**
Sequence for Full-Time Students

**Fall 1 (15 credits)**
EDUC C29 Substance Abuse and Society (3)
EDUC C32 Theories of Counseling and Psychotherapy (3)

EDUC C33 Techniques of Counseling (3)
EDUC C34 Group Theory and Techniques (3)
EDUC C43 Professional, Ethical and Legal Issues in Counseling (3)

**Spring 1 (12 credits)**
EDUC C44 Addictions Counseling (3)
EDUC F65 Research Methods in Education (3)
EDUC C42 Supervised Practicum in Counseling (3)
EDUC 624 Theory and Practice of Multi-Cultural Counseling (3)

**Summer Year 1 (9 credits)**
EDUC C46 Contemporary Issues in Clinical Mental Health Counseling (3)

EDUC 636 Addictions and Family Systems (3)
EDUC 645 The Counselor and Psychopathology (3)

**Fall 2 (12 credits)**
EDUC F67 Psychological and Educational Measurement (3)
EDUC C45 Transpersonal Counseling: Theory, Research and Practice (3)
EDUC C47 Internship in Clinical Mental Health Counseling (3)
Required Elective (3)

## Spring 2 (12 credits)
EDUC F09 Human Growth and Development: A Life-Span Perspective (3)
EDUC C47 Internship in Clinical Mental Health Counseling (3)
EDUC C31 Career Development (3)
EDUC 627 Marriage and Family Counseling (3)

**Total Credit Hours: 60**

**Culminating Experience**
This internship experience constitutes the culminating activities for this program. To qualify for the degree, students must satisfactorily complete two semesters of EDUC C47.

**Required Survey**
Counseling students are required to complete an online exit survey during the final semester.

## School Counseling, MEd

Upon Completion of this program, students can seek endorsement in School Counseling. Students will also need: two years of successful full-time teaching; or two years of successful, full-time experience in guidance and counseling under a provisional license.

**Program of Study - School Counseling**
Sequence for Full-Time Students

**Fall 1 (15 credits)**
EDUC C32 Theories of Counseling and Psychotherapy (3)
EDUC C33 Techniques of Counseling (3)
EDUC C34 Group Theory and Techniques (3)
EDUC C35 Introduction to Professional School Counseling (3)
EDUC C43 Professional, Ethical and Legal Issues in Counseling (3)

**Spring 1 (12 credits)**
EDUC 624 Theory and Practice of Multi-Cultural Counseling (3)
EDUC C31 Career Development (3)
EDUC C42 Supervised Practicum in Counseling (3)
EDUC 638 Prevention and Intervention within Public Schools (3)

**Summer Year 1 (9 credits)**
EDUC F09 Human Growth and Development: A Life-Span Perspective (3)
EDUC F65 Research Methods in Education (3)

EDUC 645 The Counselor and Psychopathology (3)

**Fall 2 (12 credits)**
EDUC F67 Psychological and Educational Measurement (3)
EDUC C29 Substance Abuse and Society (3)
EDUC C49 Supervised Internship in School Counseling (3)
EDUC 675 Theories & Strategies for Counseling School-Aged Children (3)

**Spring 2 (12 credits)**
EDUC C49 Supervised Internship in School Counseling (3)
EDUC C91 Advanced Issues in Professional School Counseling (3)
EDUC 627 Marriage and Family Counseling (3)
CRIN X48 Current Trends and Legal Issues in Educating Special Populations (3)

**Total Credit Hours: 60**

**Culminating Experience**
This internship experience constitutes the culminating activities for this program. To qualify for the degree, students must satisfactorily complete two semesters of EDUC C49.

**Required Survey**
Counseling students are required to complete an online exit survey during the final semester.

## Couples, Marriage & Family Counseling, MEd

**Program of Study - Couple, Marriage, & Family Counseling**
Sequence for Full-Time Students

**Fall 1 (15 credits)**
EDUC C32 Theories of Counseling and Psychotherapy (3)
EDUC C33 Techniques of Counseling (3)
EDUC C34 Group Theory and Techniques (3)
EDUC C43 Professional, Ethical and Legal Issues in Counseling (3)
EDUC 630 Family Development and Processes (3)

**Spring 1 (12 credits)**
EDUC 627 Marriage and Family Counseling (3)
EDUC F65 Research Methods in Education (3)
EDUC C42 Supervised Practicum in Counseling (3)
EDUC 624 Theory and Practice of Multi-Cultural Counseling (3)

**Summer Year 1 (15 credits)**
EDUC C46 Contemporary Issues in Clinical Mental Health Counseling (3)
EDUC 625 Couples Counseling and Sex Therapy (3)
EDUC 645 The Counselor and Psychopathology (3)
EDUC 636 Addictions and Family Systems (3)
EDUC 646 Internship in Family Counseling (3)

**Fall 2 (12 credits)**

EDUC F67 Psychological and Educational Measurement (3)
EDUC C29 Substance Abuse and Society (3)
EDUC 646 Internship in Family Counseling (3)
EDUC 635 Advanced Family Counseling: Theories and Techniques (3)

**Spring 2 (9 credits)**
EDUC F09 Human Growth and Development: A Life-Span Perspective (3)
EDUC C31 Career Development (3)
EDUC 646 Internship in Family Counseling (3)

**Total Credit Hours: 63**

**Culminating Experience**
This internship experience constitutes the culminating activities for this program. To qualify for the degree, students must satisfactorily complete three semesters of EDUC 646.

**Required Survey**
Counseling students are required to complete an online exit survey during the final semester.

## Counselor Education PhD

The CACREP accredited doctoral program in Counselor Education is designed to evaluate the theory and practice of counseling through quantitative and qualitative research and to prepare educators and leaders in the field of counseling. The 100 clock hour Doctoral Practicum is taken at any time in the program as approved by the advisor, but is recommended to begin in the second year. The 600 clock hour Doctoral Internship includes formal supervised experiences in a singular focus or a combination of teaching, supervision and counseling. The Doctoral Internship follows the completion of the Doctoral Practicum, and may be integrated into the program as approved by the advisor.

**Program of Study - Counselor Education**
Recommended sequence for full time students

** Counselor Education will require 96-105 hours beyond the bachelor's degree.*

**Fall 1 (9 credits)**
EDUC 663 Quantitative Research Design & Methods I (3)
EDUC 632 Advanced Theories of Counseling and Psychotherapy (3)
EDUC 639 Theory and Process of Counselor Supervision (3)

**Spring 1 (9 credits)**
EDUC 664 Qualitative Research Methods (3)
EDUC 647 Internship in Counselor Supervision (3)
EDUC 629 Individual Appraisal (3) *

**Summer 1 (3 credits)**
EDUC 684 Advanced Multicultural Social Justice Theory and Practice (3)

**Fall 2 (12 credits)**
EDUC 665 Quantitative Research Design & Methods II (3)

EDUC 762 Doctoral Seminar in Counseling (3)
EDUC 763 Doctoral Practicum (3)
EDUC 601 Advanced Group Work and Theory (3)

**Spring 2 (9 credits)**
EDUC 700 Quantitative Research Design & Methods III (3)
EDUC 703 Research in Counselor Education (3)
EDUC 764 Seminar in Counselor Education (3) *

**Summer 2**
Variable

**Fall 3 (9 credits)**
EDUC 800 Dissertation (1-9)
EDUC 765 Doctoral Internship (3)

**Spring 3 (9 credits)**
EDUC 800 Dissertation (1-9)
EDUC 765 Doctoral Internship (3)

**Area of Specialization/Cognate (12 credits)**
All students are required to have curricular experiences designed to develop an area of professional expertise (e.g., a 12 hour specialization in multicultural counseling, family counseling, substance abuse counseling) and at least one year (two semesters) of full-time study.

EDUC (3)
EDUC (3)
EDUC (3)
EDUC (3)

**Total Credit Hours: 69**
** Offered in alternate Spring semesters. Both courses are required.*

**Additional Requirements for Graduation**

- Committee Approved Dissertation must be uploaded for publishing to ProQuest by the semester deadline established by the Office of Academic Programs prior to graduation.
- The Survey of Earned Doctorates must be completed by the semester deadline established by the Office of Academic Programs prior to graduation.

## Online- Clinical Mental Health Counseling, MEd

**Program of Study - Online Clinical Mental Health Counseling**
This program is completed on a part-time basis. The term "wheels" describes the program sequence that is designed to let students interact with different cohorts and peers from other counseling programs, which is aided by the fact that many of the core courses are share between programs. Students complete all courses within a wheel prior to moving to the next wheel.

**WHEEL 1(18 credits)**
EDUC C29 Substance Abuse and Society (3)

EDUC C32 Theories of Counseling and Psychotherapy (3)
EDUC C33 Techniques of Counseling (3)
EDUC C34 Group Theory and Techniques (3)
EDUC C43 Professional, Ethical and Legal Issues in Counseling (3)
EDUC 624 Theory and Practice of Multi-Cultural Counseling (3)
*A residency takes place during Wheel 1 and focuses on assessing foundational skills from Wheel 1 courses.*

### WHEEL 2 (18 credits)

EDUC C31 Career Development (3)
EDUC C42 Supervised Practicum in Counseling (3)
EDUC F09 Human Growth and Development: A Life-Span Perspective (3)
EDUC F65 Research Methods in Education (3)
EDUC 627 Marriage and Family Counseling (3)
EDUC 645 The Counselor and Psychopathology (3)
*A residency takes place during Wheel 2 and focuses on assessing competencies in courses from Wheels 1 and Wheel 2.*

**WHEEL 3 (24 credits)**

EDUC C44 Addictions Counseling (3)
EDUC C45 Transpersonal Counseling: Theory, Research and Practice (3)
EDUC C46 Contemporary Issues in Clinical Mental Health Counseling (3)
EDUC C47 Internship in Clinical Mental Health Counseling (3)
*students will take a total of 6 credits of EDUC C47*

EDUC F67 Psychological and Educational Measurement (3)
EDUC 625 Couples Counseling and Sex Therapy (3)
EDUC 636 Addictions and Family Systems (3)

### Total Credit Hours: 60

### Required Survey:

Counseling students are required to complete an online exit survey during the final semester.

## Online- School Counseling, MEd

### Program of Study - Online School Counseling

This program is completed on a part-time basis. The term "wheels" describes the program sequence that is designed to let students interact with different cohorts and peers from other counseling programs, which is aided by the fact that many of the core courses are share between programs. Students complete all courses within a wheel prior to moving to the next wheel.

### WHEEL 1(18 credits )

EDUC C32 Theories of Counseling and Psychotherapy (3)
EDUC C33 Techniques of Counseling (3)
EDUC C34 Group Theory and Techniques (3)
EDUC C35 Introduction to Professional School Counseling (3)
EDUC C43 Professional, Ethical and Legal Issues in Counseling (3)
EDUC 624 Theory and Practice of Multi-Cultural Counseling (3)

*A residency takes place during Wheel 1 and focuses on assessing foundational skills from Wheel 1 courses.*

**WHEEL 2 (18 credits)**
EDUC C31 Career Development (3)
EDUC C42 Supervised Practicum in Counseling (3)
EDUC F09 Human Growth and Development: A Life-Span Perspective (3)
EDUC F65 Research Methods in Education (3)
EDUC 627 Marriage and Family Counseling (3)
EDUC 645 The Counselor and Psychopathology (3)
*A residency takes place during Wheel 2 and focuses on assessing competencies in courses from Wheels 1 and Wheel 2.*

**WHEEL 3 (24 credits)**
CRIN X48 Current Trends and Legal Issues in Educating Special Populations (3)
EDUC C29 Substance Abuse and Society (3)
EDUC C91 Advanced Issues in Professional School Counseling (3)
EDUC C49 Supervised Internship in School Counseling (3)
*students will take a total of 6 credits of EDUC C49*

EDUC F67 Psychological and Educational Measurement (3)
EDUC 638 Prevention and Intervention within Public Schools (3)
EDUC 675 Theories & Strategies for Counseling School-Aged Children (3)

**Total Credit Hours: 60**

**Required Survey:**
Counseling students are required to complete an online exit survey during the final semester.

**Licensure Requirments (VA)**
Completion of the School Counseling program leads to eligibility for the Pupil Personnel Services License in Virginia with an endorsement in School Counseling. The Director of Clinical Placements and Licensure in the Office of Teacher Education and Community Engagement will assist students with processing license applications in Virginia. Virginia School Counseling Licensure standards and requirements can be found on-line at: http://www.doe.virginia.gov/support/school_counseling/index.shtml . Candidates seeking licensure or endorsement in states other than Virginia are responsible for reviewing and understanding applicable licensure requirements from those states.

Graduates with two years of successful full-time teaching will receive a five-year renewable license. Graduates without the two years of teaching will receive the Virginia Department of Education's Letter of Eligibility; this allows graduates to be employed as a school counselor while accruing two years of school counseling experience in lieu of two years of full-time teaching. At the end of the two years, graduates can receive a renewable Pupil Personnel Services license.

CPR/AED/First Aid Training - Candidates seeking an initial license in Virginia are required to complete training in cardiopulmonary resuscitation, the use of an automated external defibrillator, and first aid. Training courses are available through national emergency care organizations such as the American Heart Association and the American Red Cross. As of July 1, 2017, the training must contain "hands on" training. Documentation of training (typically in the form of a current certification card) must be

provided to the Office of Teacher Education and Community Engagement as part of the licensure application packet.

## Online - Military Veterans Counseling, MEd

### Program of Study - Online Military Veterans Counseling

This program is completed on a part-time basis. The term "wheels" describes the program sequence that is designed to let students interact with different cohorts and peers from other counseling programs, which is aided by the fact that many of the core courses are share between programs. Students complete all courses within a wheel prior to moving to the next wheel.

### WHEEL 1(18 credits)

EDUC C32 Theories of Counseling and Psychotherapy (3)
EDUC C33 Techniques of Counseling (3)
EDUC C34 Group Theory and Techniques (3)
EDUC C43 Professional, Ethical and Legal Issues in Counseling (3)
EDUC 624 Theory and Practice of Multi-Cultural Counseling (3)
EDUC C51 Military Life, Culture, & Challenges (3)

*A residency takes place during Wheel 1 and focuses on assessing foundational skills from Wheel 1 courses.*

### WHEEL 2 (18 credits)

EDUC F09 Human Growth and Development: A Life-Span Perspective (3)
EDUC C31 Career Development (3)
EDUC 645 The Counselor and Psychopathology (3)
EDUC 627 Marriage and Family Counseling (3)
EDUC F65 Research Methods in Education (3)
EDUC C42 Supervised Practicum in Counseling (3)

*A residency takes place during Wheel 2 and focuses on assessing competencies in courses from Wheels 1 and Wheel 2.*

### WHEEL 3 (24 credits)

EDUC F67 Psychological and Educational Measurement (3)
EDUC C44 Addictions Counseling (3)
EDUC C52 Assessment and Treatment of Trauma-Related Disorders (3)
EDUC C53 Military-to-Veteran Transition (3)
EDUC C46 Contemporary Issues in Clinical Mental Health Counseling (3)
EDUC 625 Couples Counseling and Sex Therapy (3)
EDUC C47 Internship in Clinical Mental Health Counseling (3)

*students will take a total of 6 credits of EDUC C47*

### Total Credit Hours: 60

### Required Survey:

Counseling students are required to complete an online exit survey during the final semester.

## School Psychology, MEd

The M.Ed. degree in School Psychology is the first phase of a graduate program designed for individuals who plan careers in school psychology. The Master's degree is not sufficient for licensure. In order to meet fully the Virginia DOE licensure requirements for school psychologists, students must complete the second phase of the program, which culminates in the Educational Specialist Degree.

### Program of Study - School Psychology MEd

**Fall 1 (16 credits)**
EDUC F67 Psychological and Educational Measurement (3)
CRIN X51 Language Development and Reading Instruction for Exceptional Students (3)
CRIN X52 Instructional Design/Methods for Students with Disabilities in the General Curriculum (3)
CRIN X54 Characteristics and Adaptations for Students with Developmental Disabilities and Autism Spectrum Disorder (3)
EDUC P20A Psycho-educational Assessment for School Psychologists (4)*

**Spring 1 (16 credits)**
EDUC F12 Advanced Educational Psychology and Development (3)
EDUC F65 Research Methods in Education (3)
EDUC 669 Neuropsychological Bases of Behavior (3)
EDUC P20B Psycho-educational Assessment for School Psychologists II (4)*
EDUC P23 Introduction to Professional School Psychology (3)
**Must be completed with grade of B or above.*

**Total Credit Hours: 32**

## School Psychology, EdS

Students from the M.Ed. in School Psychology program elevate to the Ed.S. program.

### Program of Study - School Psychology, EdS

**Fall 1 ( 15 credits)**
EDUC P24 Practicum in School Psychology (3)
EDUC 675 Theories & Strategies for Counseling School-Aged Children (3)
EDUC 644 Developmental Psychopathology (3)
EDUC 626 Seminar in Professional School Psychology: Ethical and Legal Issues (3)
CRIN X56 Classroom Management and Positive Behavioral Supports for Students with Disabilities (3)

**Spring 1 (12 credits)**
EDUC P24 Practicum in School Psychology (3)
EDUC P56 Consultation in the Schools (3)
EDUC 638 Prevention and Intervention within Public Schools (3)
Choose one of the following:

- EDUC 622 Counseling Theories and Techniques (3)
- CRIN X57 Advanced Procedures in Classroom Management and Social Intervention (3)

**Fall 2 (6 credits)**
EDUC 659 Internship in School Psychology (6)

**Spring 2 (6 credits)**
EDUC 659 Internship in School Psychology (6)

**Total Credit Hours: 39**

### Additional Graduation Requirements

- Submission of completed Professional Portfolio
- Submission of Praxis Subject Assessment for School Psychology scores

### Licensure in Virginia

CPR/AED/First Aid Training - Candidates seeking initial license in Virginia are required to complete training in cardiopulmonary resuscitation, the use of an automated external defibrillator, and first aid. Training courses are available through national emergency care organizations such as the American Heart Association and the American Red Cross. Documentation of training (typically in the form of a current certification card) must be provided to the Office of Teacher Education and Community Engagement as part of the licensure application packet.

## SPACE (EDUC prefix) Courses

# School of Marine Science (SMS)

**Virginia Institute of Marine Science (VIMS)**
**School of Marine Science (SMS)**

**Office of Academic Studies**
Post Office Box 1346
1375 Greate Road
Gloucester Point, Virginia 23062-1346
Phone: 804.684.7105
Fax: 804.684.7097

**SMS Graduate Program Website:**
https://www.vims.edu/education/graduate/

**Additional Information**

- Academic Calendar
- Degree Programs
- Degree Requirements
- Research Graduate Status
- Admission
- SMS Student Life
- W&M Student Services
- Learn more about VIMS at:https://www.vims.edu/
- Learn more about W&M



The School of Marine Science (SMS), along with Arts & Sciences, School of Education, Mason School of Business and W&M Law School, is one of William & Mary's five graduate and professional programs. As the second oldest university in the nation, William & Mary is known as both a "Public Ivy" and a leading research university. The School of Marine Science, which is also an integral part of the Virginia Institute of Marine Science (VIMS), is located in Gloucester Point, only 16 miles from the main campus in Williamsburg and across the York River from historic Yorktown. The Chesapeake Bay ecosystem is literally "just outside the door" for students who come to study at the VIMS campus. The VIMS commitment to its three-part mission - to conduct interdisciplinary research in coastal ocean and estuarine science, educate students and citizens, and provide advisory service to policy makers, industry, and the public - creates a unique and dynamic training ground for students who want to interface science and its application in service to the global community. The first VIMS marine science master's was awarded in 1943 and the doctoral program was inaugurated in 1964. We celebrate over 1,000 VIMS alumni, many of whom have gone on to distinguished careers in academia and research-focused institutions, government agencies at the local, state and federal levels, and corporate and private sectors.

The School of Marine Science offers the M.S. and Ph.D. in Marine Science, with a variety of options in terms of disciplinary and interdisciplinary studies. Students entering without a M.S. are offered a M.S. bypass option. A sub-concentration in Marine Policy and the opportunity to earn a concurrent Master of Public Policy are other options. The programs are fully accredited by the Southern Association of Colleges and Schools. Interdisciplinary studies are encouraged and students may have co-advisors in different departments. Interested students also have a wealth of opportunities to participate in areas of applied research and advisory service to government and other organizations.

An undergraduate minor in marine science is jointly offered and administered by the School of Marine Science and Arts & Sciences. Courses are offered both on the main William & Mary campus and on the VIMS campus. The nearby Chesapeake Bay gives students the ability to explore a unique ecosystem firsthand, while distant field courses allow students to experience an even broader spectrum of environments.  More information on undergraduate courses and the marine science minor is available at: http://www.wm.edu/as/marinescience/ .

# Academic Calendar



**NOTE:** *Additional dates and deadlines of importance may also be found on the Academic Calendars & Exam Schedules pages of the University Registrar's web site* ***www.wm.edu/registrar****. Calendar dates are subject to change.*

## Fall Semester 2019

| | |
|---|---|
| Aug 1-27 | Registration for New Degree-Seeking Graduate Students |
| Aug 1 | Tuition and Fees Due for Fall 2019 |
| Aug 14-27 | Registration for Non-Degree Seeking Students |
| Aug 26-27 | New Student Orientation |
| Aug 28 | Classes Begin: 8 a.m. |
| | Add/Drop Begins |
| Sept 2 | Labor Day - Offices Closed; Classes in Session |
| Sept 6 | Last Day to Add/Drop |
| Sept 7 | Withdrawal Period Begins |
| Oct 1 | Online Filing Deadline for Graduation in May or August 2020 |
| Oct 12-15 | Fall Break |
| Oct 21-25 | Advance Spring Registration for Continuing Students |
| Oct 25 | Last Day to Withdraw |
| Oct 26 - Dec 6 | Spring Schedule Adjustment for Continuing Students |
| Nov 27 - Dec 1 | Thanksgiving Break - Offices Closed; No Classes |
| Dec 6 | Classes End: 5 p.m. |
| | Last Day to Submit Grades for Spring 2019 Incomplete (I) Coursework |
| | Final Deadline to File for Graduation in May or August 2020 |
| Dec 7-8 | Reading Period I |
| Dec 9-13 | Examinations |
| Dec 13 | Last Day to Submit Theses and Dissertations for January 2019 Graduation |
| Dec 14-15 | Reading Period II |
| Dec 16-18 | Examinations |
| Jan 2 | Final Grades Due by 9 a.m. |
| Jan 17 | Winter Degree Conferral Date (No Ceremony) |

## Spring Semester 2020

| | |
|---|---|
| Jan 6-21 | Registration for New Degree-Seeking Students |
| Jan 15-22 | Registration for Non-Degree-Seeking Students |
| Jan 17 | Winter Degree Conferral Date (No Ceremony) |
| Jan 20 | MLK Holiday - Offices Closed |
| Jan 22 | Classes Begin: 8 a.m. |
| | Add/Drop Begins |
| Jan 31 | Last Day to Add/Drop |
| Feb 1 | Withdrawal Period Begins |
| Feb 15 | Online Filing Begins for Graduation in January, May or August 2021 |

| | |
|---|---|
| Mar 7-15 | Spring Break |
| Mar 16-20 | Advance Summer and Fall Registration for Continuing Students |
| Mar 20 | Last Day to Withdraw |
| Mar 21 - May 1 | Summer Schedule Adjustment for Continuing Students |
| Mar 21 - Jul 1 | Fall Schedule Adjustment for Continuing Students |
| May 1 | Classes End: 5 p.m. |
| | Last Day to Submit Grades for Fall 2019 Incomplete (I) Coursework |
| | Last Day to Submit Theses and Dissertations for May 2020 Graduation |
| May 2-3 | Reading Period I |
| May 4-8 | Examinations |
| May 9-10 | Reading Period II |
| May 11-13 | Examinations |
| May 13 | Final Grades Due by 12 p.m., Graduate Students - May Graduation Candidates |
| May 15 | Final Grades Due by 9:00 a.m., Undergraduate Students - May Graduation Candidates |
| May 16 | May Commencement Exercises |
| May 20 | Final Grades Due by 9 a.m., All Continuing Students |

## Summer Sessions 2019

### Overall Important Dates

| | |
|---|---|
| May 25 | Memorial Day Holiday - Offices Closed; No Classes |
| Jul 1 | Online Filing Deadline for Graduation in January 2021 |
| | Fall 2020 Registration Deadline for Continuing Degree-Seeking Students |
| Jul 4 | Independence Day - Offices Closed; Classes in Session |
| Aug 9 | Last Day to Submit Theses and Dissertations for August 2020 Graduation |
| Aug 21 | Summer Degree Conferral Date (No Ceremony) |

### Summer Session 1: June 1 - July 3, 2020

| | |
|---|---|
| Mar 16 - June 1 | Registration Period for Degree-Seeking Students |
| May 1 - June 1 | Registration Period for Non-Degree-Seeking Students |
| Jun 1 | Classes Begin |
| Jun 1-5 | Add/Drop Period |
| Jun 6-19 | Withdrawal Period |
| Jul 3 | Last Day of Classes |
| Jul 10 | Final Grades Due by Noon |

### Summer Session 2: July 6 - August 7, 2020

| | |
|---|---|
| Mar 16 - Jul 6 | Registration Period for Degree-Seeking Students |
| Jun 1 - Jul 6 | Registration Period for Non-Degree-Seeking Students |
| Jul 4 | Independence Day - Offices Closed, Classes in Session |
| Jul 6 | Classes Begin |
| Jul 6-10 | Add/Drop Period |
| Jul 11-24 | Withdrawal Period |
| Aug 7 | Last Day of Classes |
| Aug 14 | Final Grades Due by Noon |

**Summer Session 3: June 1 - August 7, 2020**

| | |
|---|---|
| Mar 16 - June 1 | Registration Period for Degree-Seeking Students |
| May 1 - June 1 | Registration Period for Non-Degree-Seeking Students |
| Jun 1 | Classes Begin |
| Jun 1-12 | Add/Drop Period |
| Jun 13 - Jul 10 | Withdrawal Period |
| Jul 4 | Independence Day - Offices Closed; Classes in Session |
| Aug 7 | Last Day of Classes |
| Aug 14 | Final Grades Due by Noon |

**Non-Standard: May 17 - August 21, 2020**
** MSCI field courses and short courses generally fall within this session.*
*** See SMS Registrar for course specific details. After May 1st, registration and add/drop/withdraw must be done manually through SMS Registrar's Office.*

| | |
|---|---|
| Mar 16 - May 1 ** | Registration Period for Degree-Seeking Students (via Banner Self-Service) |
| Apr 1 - May 1 ** | Registration Period for Non-Degree-Seeking Students |
| Varies per course ** | Classes Begin |
| Varies per course ** | Add/Drop Period |
| Varies per course ** | Withdrawal Period |
| Varies per course ** | Last Day of Classes |
| One Week After Class End Date ** | Final Grades Due by Noon |

## SMS: Administration & Faculty

- William & Mary Board of Visitors
- William & Mary Administrative Officers
- VIMS/SMS Administrative Officers
- VIMS/SMS Current Faculty
- VIMS/SMS Emeritus Faculty

## Administrative Officers - VIMS/SMS

| | |
|---|---|
| John T. Wells | Dean and Director |
| Linda C. Schaffner | Associate Dean, Academic Studies |
| Mark W. Luckenbach | Associate Dean, Research and Advisory Services |
| DaNika N. Robinson | Chief Financial Officer |
| Joseph Martinez | Chief Operations Officer |
| Amy Fisher | Director of Development |

### Office of Academic Studies

| | |
|---|---|
| Jennifer C. Hay | SMS Graduate Registrar and Assistant to the Associate Dean<br>**Contact the Office of Academic Studies** |

## SMS: Office of Academic Studies

The Office of Academic Studies is located in Watermen's Hall on the VIMS Gloucester Point Campus (Rooms 251-253). Please contact us at academicstudies@vims.edu if you need additional information.

For questions relating to Admission, please contact us at admissions@vims.edu.

**Linda Schaffner**, Associate Dean of Academic Studies
Office: 804.684.7105
Email: AD-AS@vims.edu

**Jennifer Hay**, SMS Graduate Registrar and Assistant to the Associate Dean
Office: 804.684.7106
Email: Registrar@vims.edu

**Cathy Cake**, Graduate Program Business Manager
Office: 804.684.7505
Email: Academicstudies@vims.edu

This SMS Graduate Catalog lists the key guidelines, milestones, requirements and regulations for the program. Catalogs prior to 2013 - 2014 can be viewed here.

The SMS Student Handbook can be viewed at:
http://www.vims.edu/education/graduate/student_handbook

General information on the Graduate Program of the School of Marine Science can be found at:
http://www.vims.edu/education/graduate
http://www.vims.edu/gateways/prospectivestudents
http://www.vims.edu/gateways/currentstudents

## VIMS/SMS Current Faculty

For a complete directory of current faculty, information on their research programs, publications and education activities, see https://www.vims.edu/about/directory/faculty/index.php

For faculty, by department:
Biological Sciences (https://www.vims.edu/research/departments/bio/index.php)
Aquatic Health Sciences (https://www.vims.edu/research/departments/eaah/index.php)
Fisheries Science (https://www.vims.edu/research/departments/fisheries/index.php)
Physical Sciences (https://www.vims.edu/research/departments/physical/sub_disciplines/index.php)

**Standish K. Allen, Jr.**, Professor of Marine Science. B.A., Franklin and Marshall College; M.S., University of Maine; Ph.D., University of Washington. Fisheries Science. ska@vims.edu

**Iris C. Anderson**, Professor of Marine Science. B.S., Colby College; M.S., Massachusetts Institute of Technology; Ph.D., Medical College of Virginia, Virginia Commonwealth University. Biological Sciences. iris@vims.edu

**Donna M. Bilkovic**, Research Associate Professor of Marine Science. B.S. & M.S., University of Michigan; Ph.D., College of William & Mary. donnab@vims.edu

**Richard W. Brill**, Affiliate Faculty and Director of CMER. B.A. Lafayette College; M.S. Northeastern University; Ph.D., University of Hawaii. Fisheries Science. rbrill@vims.edu

**Mark J. Brush**, Associate Professor of Marine Science. B.S., Cornell University; Ph.D., University of Rhode Island. Biological Sciences. brush@vims.edu

**Elizabeth A. Canuel**, Chancellor Professor of Marine Science. B.S., Stonehill College; Ph.D., University of North Carolina. Physical Sciences. ecanuel@vims.edu

**Ryan B. Carnegie**, Research Professor of Marine Science. B.A., Rutgers University; M.A., College of William & Mary; Ph.D., University of Maine. Aquatic Health Sciences. carnegie@vims.edu

**Randolph M. Chambers**, Professor of Biology and Marine Sciences. B.A., Gettysburg College; M.S., University of Massachusetts; Ph.D., University of Virginia. Biological Sciences. rmcham@wm.edu

**Grace S. Chiu**, Associate Professor of Marine Science. B.S. & M.S., University of British Columbia; Ph.D., Simon Fraser University. Biological Sciences. gschiu@vims.edu

**Mary C. Fabrizio**, Professor of Marine Science. B.S., Fordham University; Ph.D., University of Rhode Island. Fisheries Science. mfabrizio@vims.edu

**Carl T. Friedrichs**, Loretta and Lewis Glucksman Professor of Marine Science. B.A., Amherst College; Ph.D., Massachusetts Institute of Technology/Woods Hole Oceanographic Institution. Physical Sciences. cfried@vims.edu

**Marjorie A. M. Friedrichs**, Research Professor of Marine Science. B.A., Middlebury College; M.S., M.I.T./Woods Hole Oceanographic Institution Joint Program; Ph.D., Old Dominion University. Biological Sciences. marjy@vims.edu

**Donglai Gong**, Associate Professor of Marine Science, B.A./B.S., Rutgers University; M.S., Massachusetts Institute of Technology; Ph.D., Rutgers University. Physical Sciences.

**John E. Graves**, Chancellor Professor of Marine Science. B.A., Revelle College, University of California, San Diego; Ph.D., Scripps Institution of Oceanography, University of California, San Diego. Fisheries Science. graves@vims.edu

**Robert C. Hale**, Professor of Marine Science. B.S., B.A., Wayne State University; Ph.D., College of William & Mary. Aquatic Health Sciences. hale@vims.edu

**Courtney K. Harris**, Professor of Marine Science. B.S., University of Virginia; M.S., University of California, Berkeley; M.S., Ph.D., University of Virginia. Physical Sciences. ckharris@vims.edu

**Troy W. Hartley**, Research Professor of Marine Science and Director, Virginia Sea Grant. B.S., University of Vermont; M.A., George Mason University; Ph.D., University of Michigan. thartley@vims.edu

**Kirk J. Havens**, Research Associate Professor of Marine Science and Assistant Director, CCRM. B.S. and M.S. Old Dominion University; Ph.D., George Mason University. kirk@vims.edu

**Christopher J. Hein**, Associate Professor of Marine Science. B.S., Cornell University; Ph.D., Boston University. Physical Sciences. hein@vims.edu

**Carl H. Hershner**, Professor of Marine Science. B.S., Bucknell University; Ph.D., University of Virginia. Biological Sciences. carl@vims.edu

**Eric J. Hilton**, Professor of Marine Science. B.S., M.S., Ph.D., University of Massachusetts, Amherst. Fisheries Science. ehilton@vims.edu

**John M. Hoenig**, Professor of Marine Science. B.S., Cornell University; M.S., Ph.D., University of Rhode Island. Fisheries Science. hoenig@vims.edu

**David S. Johnson**, Assistant Professor of Marine Science, B.S., University of Central Arkansas; Ph.D., Louisiana State University. Biological Sciences. dsjohnson@vims.edu

**Matthew L. Kirwan**, Associate Professor of Marine Science. B.S., College of William & Mary; Ph.D., Duke University. Physical Sciences. kirwan@vims.edu

**Steven A. Kuehl**, Professor of Marine Science. B.A., Lafayette College; M.S., Ph.D., North Carolina State University. Physical Sciences. kuehl@vims.edu

**Robert J. Latour**, Professor of Marine Science. B.A., Western New England College; M.BMA, Ph.D., North Carolina State University. Fisheries Science. latour@vims.edu

**Romuald N. Lipcius**, Professor of Marine Science. B.S., University of Rhode Island; Ph.D., Florida State University. Fisheries Science. rom@vims.edu

**Mark W. Luckenbach**, Professor of Marine Science and Associate Dean, Research & Advisory Services. B.S., University of North Carolina; Ph.D., University of South Carolina. Biological Science. luck@vims.edu

**Roger L. Mann**, Professor of Marine Science. B.S., University of East Anglia; Ph.D., University of Wales. Fisheries Science. rmann@vims.edu

**Jan R. McDowell**, Research Associate Professor of Marine Science, B.A., University of Iowa; Ph.D., College of William & Mary. Fisheries Science. mcdowell@vims.edu

**Robert J. Orth**, Professor of Marine Science. B.A., Rutgers University; M.A., University of Virginia; Ph.D., University of Maryland. Biological Sciences. jjorth@vims.edu

**William G. Reay**, Research Associate Professor of Marine Science. B.S., George Mason University; M.A., College of William & Mary; Ph.D., Virginia Polytechnic Institute and State University. Physical Sciences. wreay@vims.edu

**Kimberly S. Reece**, Professor of Marine Science. B.S., University of Rochester; Ph.D., Cornell University. Aquatic Health Sciences. kreece@vims.edu

**Emily B. Rivest**, Assistant Professor of Marine Science. B.S., Cornell University; Ph.D., University of California. Biological Sciences. ebrivest@vims.edu

**David B. Rudders**, Research Assistant Professor of Marine Science. B.S., University of Massachusetts; M.S. & Ph.D., College of William & Mary. Fisheries Science. rudders@vims.edu

**Linda C. Schaffner**, Professor of Marine Science and Associate Dean of Academic Studies. B.A., Drew University; M.A., Ph.D., College of William & Mary. Biological Sciences. linda@vims.edu

**Andrew Scheld**, Assistant Professor of Marine Science. B.S., University of Massachusetts, Amherst; M.S., University of Rhode Island; Ph.D., University of Washington. Fisheries Science. scheld@vims.edu

**Rochelle D. Seitz**, Research Professor of Marine Science. B.A., Colgate University; M.A., Ph.D., College of William & Mary. Biological Sciences. seitz@vims.edu

**Elizabeth H. Shadwick**, Assistant Professor of Marine Science. B.S., McGill University; M.S., University of Alberta; Ph.D., Dalhousie University. Physical Sciences. shadwick@vims.edu

**Jian Shen, Research** Associate Professor of Marine Science. B.S., Shanghai Teacher's University, M.A., Ph.D., College of William & Mary. Physical Sciences. shen@vims.edu

**Jeffrey D. Shields**, Moses D. Nunnally Term Professor of Marine Science. B.A., University of California, Santa Barbara; M.S., University of California, Berkeley; Ph.D., University of California, Santa Barbara. Environmental and Aquatic Animal Health. jeff@vims.edu

**Juliette L. Smith**, Assistant Professor of Marine Science. B.S., University of Buffalo, SUNY; M.S., University of New Hampshire; Ph.D., College of Environmental Science and Forestry, SUNY. Aquatic Health Sciences. jlsmith@vims.edu

**Walker O. Smith, Jr.**, Professor of Marine Science. B.S., University of Rochester; Ph.D, Duke University. Biological Sciences. wos@vims.edu

**Richard A. Snyder**, Professor and Director of Eastern Shore Laboratory. B.S., College of Charleston; M.S., Ph.D., University of Maryland. Biological Sciences. rsnyder@vims.edu

**Bongkeun Song**, Associate Professor of Marine Science. B.S., Dongguk University, Korea; M.S., Ph.D., Rutgers University. Biological Sciences. songb@vims.edu

**Deborah K. Steinberg**, CSX Professor of Marine Science. B.A., University of California, Santa Barbara; Ph.D., University of California, Santa Cruz. Biological Sciences. debbies@vims.edu

**Michael A. Unger**, Professor of Marine Science. B.S., Michigan State University; M.S., Ph.D., College of William & Mary. Aquatic Health Sciences. munger@vims.edu

**Wolfgang Vogelbein**, Professor of Marine Science. B.S., Southampton College; M.S., California State University; Ph.D., Louisiana State University. Aquatic Health Sciences. wolf@vims.edu

**Harry Wang**, Professor of Marine Science. B.S., National Taiwan University; Ph.D., Johns Hopkins University. Physical Sciences. wang@vims.edu

**Andrew R. Wargo**, Associate Professor of Marine Science, B.A., University of Vermont; Ph.D., University of Edinburgh. Aquatic Health Sciences. arwargo@vims.edu

**John T. Wells**, Professor of Marine Science and Dean and Director. B.S., Virginia Polytechnic Institute; M.S., Old Dominion University; Ph.D., Louisiana State University. Physical Sciences. wells@vims.edu

**Kevin C. Weng**, Associate Professor of Marine Science, B.A., Williams College; M.S., University of Hawaii (Manoa); Ph.D., Stanford University. Fisheries Science. kevinweng@vims.edu

**Yinglong Joseph Zhang**, Research Professor of Marine Science; B.S., Peking University, China; M.S./Ph.D. The University of Wollongong, Australia. Physical Sciences. yjzhang@vims.edu

## VIMS/SMS Emeritus Faculty

**Henry Aceto, Jr.**, Professor Emeritus of Biology and Marine Science. B.S., State University of New York, Albany; M.S., University of California, Berkeley; Ph.D., University of Texas.

**Herbert M. Austin**, Professor Emeritus of Marine Science. B.S., Grove City College; M.S., University of Puerto Rico; Ph.D., Florida State University.

**Thomas A. Barnard, Jr.**, Assistant Professor Emeritus of Marine Science. B.A., Milligan College; M.A., College of William & Mary.

**Rudolf H. Bieri**, Professor Emeritus of Marine Science. Dr.rer.nat. Johann Gutenberg University.

**John D. Boon, III**, Professor Emeritus of Marine Science. B.A., Rice University; M.A., Ph.D., College of William & Mary.

**Eugene M. Burreson**, Chancellor Professor Emeritus of Marine Science. B.S., Eastern Oregon College; M.S., Ph.D., Oregon State University.

**John M. Brubaker**, Professor Emeritus of Marine Science. A.B., Miami University; Ph.D., Oregon State University.

**Robert J. Byrne**, Professor Emeritus of Marine Science. M.S., Ph.D., University of Chicago.

**Mark E. Chittenden, Jr.**, Professor Emeritus of Marine Science. B.A., Hobart College; M.S., Ph.D., Rutgers University.

**Fu-Lin Chu**, Professor Emeritus of Marine Science. B.S., The Chinese University of Hong Kong; M.S., University of Rochester; Ph.D., College of William & Mary.

**Robert J. Diaz**, Professor Emeritus of Marine Science. B.A., LaSalle College; M.S., Ph.D., University of Virginia; D.H.C., University of Gothenberg, Sweden.

**William D. DuPaul**, Professor Emeritus of Marine Science. B.S., Bridgewater State College; M.A., Ph.D., College of William & Mary.

**David A. Evans**, Associate Professor Emeritus of Marine Science. B.A., M.A., Cambridge University; D.Phil., Oxford University.

**Leonard W. Haas**, Associate Professor Emeritus of Marine Science. A.B., Dartmouth College; M.S., University of Rhode Island; Ph.D., College of William & Mary.

**Carl H. Hobbs, III**, Professor Emeritus of Marine Science. B.S., Union College; M.S., University of Massachusetts; Ph.D., University of Mississippi.

**Robert J. Huggett**, Professor Emeritus of Marine Science. M.S., Scripps Institution of Oceanography; Ph.D., College of William & Mary.

**Howard I. Kator**, Professor Emeritus of Marine Science. B.S., Harpur College; Ph.D., Florida State University.

**Albert Y. Kuo**, Professor Emeritus of Marine Science. B.S., National Taiwan University; M.S., University of Iowa; Ph.D., Johns Hopkins University.

**Maurice P. Lynch**, Professor Emeritus of Marine Science. A.B., Harvard University; M.A., Ph.D., College of William & Mary.

**Jerome P.-Y. Maa**, Professor Emeritus of Marine Science. B.S. and M.S., National Cheng-Kung University; Ph.D., University of Florida.

**William G. MacIntyre**, Professor Emeritus of Marine Science. B.S., M.S., Ph.D., Dalhousie University.

**John D. Milliman**, Chancellor Professor Emeritus of Marine Science. B.S. University of Rochester; M.S., University of Washington (Seattle); Ph.D., University of Miami.

**Kenneth A. Moore**, Professor Emeritus of Marine Science. B.S., Pennsylvania State University; M.S., University of Virginia; Ph.D., University of Maryland. Biological Sciences.

**John A. Musick**, A. Marshall Acuff, Jr. Professor Emeritus of Marine Science. A.B., Rutgers University; M.A., Ph.D., Harvard University.

**Michael C. Newman**, A Marshall Acuff Jr., Professor Emeritus of Marine Science. B.A. and M.S, University of Connecticut; M.S. and Ph.D., Rutgers University. Aquatic Health Sciences.

**Maynard M. Nichols**, Professor Emeritus of Marine Science. B.S., Columbia University; M.S., Scripps Institution of Oceanography; Ph.D., University of California at Los Angeles.

**Frank O. Perkins**, Professor Emeritus of Marine Science. B.A., University of Virginia; M.S., Ph.D., Florida State University.

**James E. Perry, III**, Professor Emeritus of Marine Science. B.S., Murray State University; Ph.D., College of William & Mary.

**Evon P. Ruzecki**, Associate Professor Emeritus of Marine Science. A.B., Knox College; M.S., University of Wisconsin; Ph.D., University of Virginia.

**Gene M. Silberhorn**, Professor Emeritus of Marine Science. B.S., Eastern Michigan University; M.S., West Virginia University; Ph.D., Kent State University.

**Dennis L. Taylor**, Professor Emeritus of Marine Science. B.A., University of Pennsylvania; Ph.D., University of Wales.

**N. Bartlett Theberge, Jr**., Professor Emeritus of Marine Science. B.S., J.D., College of William & Mary; LL.M., University of Miami.

**Peter A. Van Veld**, Associate Professor Emeritus of Marine Science. B.S., University of North Carolina, Chapel Hill; M.A., College of William & Mary; Ph.D., University of Georgia.

**Kenneth L. Webb**, Chancellor Professor Emeritus of Marine Science. A.B., Antioch College; M.S., Ph.D., Ohio State University.

**Richard L. Wetzel**, Professor Emeritus of Marine Science. B.S., M.S., University of West Florida; Ph.D., University of Georgia.

**Frank J. Wojcik**, Assistant Professor Emeritus of Marine Science. B.S., University of Massachusetts; M.S., University of Alaska.

**L. Donelson Wright**, Chancellor Professor Emeritus of Marine Science. B.A., University of Miami; M.A., University of Sydney; Ph.D., Louisiana State University.

## SMS: VIMS Campus and Student Activities



School of Marine Science students participate in graduate studies at an active, year round research facility with approximately 350 scientists, support technicians and staff. The 35-acre main campus of the Virginia Institute of Marine Science is located in Gloucester Point at the mouth of the York River, a major tributary and natural passageway to the Chesapeake Bay and Atlantic Ocean.

### Graduate Student Association (GSA)

The Graduate Student Association (http://wmpeople.wm.edu/site/page/marsci) is a voluntary organization open to all graduate students in the School of Marine Science. The purpose of the GSA is to advance the academic and social interests of its members. Students will find information on the GSA website about funding opportunities and housing availability. Officers are elected each spring for the following academic year.

### Graduate Program Ombuds Team

Faculty ombuds and student peer advisors are available to help graduate students resolve issues and address concerns that arise within the university setting. Acting as an advocate for fairness, a member of the team can provide information about institutional policies and work to help you manage a conflict, understand the university system, and find productive ways of communicating. Examples of concerns brought to an ombuds include adjusting to graduate school, relationships with major professors, academic and funding difficulties, and other issues related to graduate education.

### Cultural Life at VIMS and William & Mary

Many activities on the College's campuses and in the local communities enrich the lives and career development of students enrolled in SMS. Students have the opportunity to interact with top national and international marine scientists during an annual seminar series. Luncheons with the speaker and social gatherings also allow students to interact with these scientists in less formal settings. After Hours

Lectures feature experts from VIMS and main campus who shed light on the natural history of Chesapeake Bay and the current issues it faces. Marine Science Day, which takes place in May is the biggest public event at VIMS. Many members of the VIMS community, including faculty, staff, and students get involved -- it's a great way for scientists to engage with the public and discuss implications of current research for the local community and the globe. The GSA also offers many social opportunities to students and the VIMS campus. Parties during the fall and spring are open to all members of the VIMS community and their families. The annual GSA Community Yard Sale is a great way to buy and sell household items and to mingle with locals.

Gloucester Point and Yorktown's Riverwalk Landing are the areas closest to the VIMS campus. They boast popular beaches that attract local citizens. Gloucester Point and other areas along the York River are great locations for water sports including kayaking, sailing, and windsurfing. VIMS staff and students are in charge of a William & Mary's Sail and Paddle Club. The club has kayaks, windsurfers, and sailboats that are available to its members. Lessons and weekend trips are offered many times a year.

Farmer's markets and local produce and seafood stands on both sides of the York River offer local foods and are a great way to network with local community members. Nearby venues display art and hold concerts featuring local and national artists. Live music is regularly accessible at the Crab Deck in Gloucester Point and at Yorktown's Riverwalk Landing.

Gloucester and Yorktown hold many celebrations of local and national pride. In Gloucester, the Daffodil Festival in spring is a large celebration of Gloucester's history of flower cultivation. Seafood festivals in Gloucester, Poquoson, and Urbanna celebrate traditional lifestyles centered around the Chesapeake Bay. Yorktown holds wonderful fireworks displays and the VIMS campus at Gloucester Point is a prime location for viewing.

Many cities in Virginia are easily accessible from Gloucester, including Richmond, Williamsburg, Norfolk, and Virginia Beach. These cities each provide an array of businesses and cultural and entertainment events throughout the year. Washington, D.C. is a three hour drive and is also accessible by train from Williamsburg. As part of the William & Mary community, School of Marine Science students have access to all of the amenities and events offered at William & Mary. Students have access to Swem Library, the Rec Center, theatric performances, art exhibits, concerts, sporting events and lectures. All SMS students also have a William & Mary email address, through which important information about student requirements and upcoming events are disseminated. Look for "Student Happenings" emails to find out about upcoming events. With a William & Mary ID card, SMS students also have free access to the buildings at Colonial Williamsburg.

Students should refer to the School of Marine Science Quick Reference Guide (accessible via the VIMS Intranet) to learn more about VIMS and local area resources and services.

## Housing & Transportation

There is no student housing on the VIMS campus, and most students live in rural Gloucester Point or in surrounding communities. Rental housing is somewhat limited in the Gloucester Point area, but apartments in nearby Gloucester, Mathews, Yorktown, and Newport News are more plentiful if one is willing to commute a short distance by car. One bedroom apartments generally range from $500 to $1000, while multiple bedroom apartments will generally cost about $300 to $500 per occupant. These figures do not include utilities or amenities. Students often elect to share housing in order to keep costs to a minimum. A limited number of apartments for graduate students are available on the Williamsburg campus. Located next to the William & Mary Law School, the Graduate Housing Complex is within walking distance of the College's main campus and historic Colonial Williamsburg.

Information and application forms can be obtained from the Office of Residence Hall Life located on the main campus (757) 221-4134, or email living@wm.edu.

### Recreational Sports

The Recreational Sports Department at William & Mary provides a variety of recreational opportunities to all students, faculty and staff through intramural, sports clubs, informal recreation, fitness/wellness and outdoor programs. Facilities include the Student Recreation Center, Adair Gymnasium, William & Mary Hall and various outdoor facilities. For building hours, intramural schedules, sports club listings, and fitness/wellness services, see the Recreational Sports website at http://www.wm.edu/rec.

### Parking

All motor vehicles, including motorcycles and motorbikes, parked on VIMS property must be registered with W&M Parking Services. Registration includes the purchase of a William & Mary or VIMS-only parking decal or temporary pass, which must be displayed on or in the vehicle. Illegally parked or unregistered vehicles are subject to citation. The VIMS-only decal is valid only at the William & Mary Hall lot when visiting the main campus in Williamsburg. Students with unresolved citations will not be allowed to register a vehicle on campus until the debt is resolved. Outstanding debt to Parking Services may result in an administrative hold in Banner, which will limit registration for classes or to receive degrees. At the end of the semester outstanding debt will be forwarded to the Bursar's office and will be posted to student accounts. A full description of campus motor vehicle regulations is contained in a brochure available from Parking Services or online at www.wm.edu/parking. You may also contact Parking Services at telephone (757) 221-4764 or email parked@wm.edu.

## SMS: Policies

- SMS: Academic & General Policies
- SMS: Admission Policies
- SMS: Financial Policies
- SMS: VIMS Facilities & Service Centers
- W&M: Academic & General Policies
- W&M: Financial Information & Policies
- W&M: Student Services

Students enrolled in the graduate program of the School of Marine Science are students of the College of William & Mary and must abide by academic and general policies set forth by the College. Students are also eligible for services provided by the College of William & Mary on the main campus in Williamsburg.

## SMS: Academic & General Policies

- Academic Standing & Satisfactory Progress
- Academic Probation
- Academic Residency
- Appeals
- Auditing a Course
- Core Course Exemption
- Degree Program Time Extension
- Grading & Quality Points
- Graduation
- Leave of Absence
- Registration and Student Status and Changes in Registration
- Retaking a Course
- Transfer of Academic Credit
- Withdrawal from the Program
- Reinstatement after Withdrawal

### General Statements of Policy

All students enrolled at William & Mary, including students of the School of Marine Science, are bound by the regulations noted within the W&M Student Handbook. The College reserves the right to make

changes in the procedures and regulations contained within the Handbook at any time. The Handbook contains important information about the College's expectations regarding student conduct, student rights and responsibilities, and relevant processes and procedures to address alleged misconduct. The Honor Code and its procedures are also included in the Handbook.

The W&M Student Handbook is available at:
http://www.wm.edu/offices/deanofstudents/services/studentconduct/studenthandbook/

Any SMS student seeking to raise a specific concern or discuss a problem regarding graduate studies in the School of Marine Science may contact the Associate Dean of Academic Studies at (804) 684-7105 or contact the SMS Ombuds Team. General queries and questions about the SMS academic programs should be sent to AD-AS@vims.edu.

## Academic Standing & Satisfactory Progress

Admission to the SMS graduate program implies a significant commitment on the part of the student, the student's advisor and the department, as well as VIMS and the SMS. To remain in good academic standing a student must maintain a cumulative GPA of B or better ($\geq 3.0$) with no core course grade lower than B-, and no grade lower than C-. In addition, the student must continue to make satisfactory progress as defined by College degree requirements and regulations of the School of Marine Science.

The Academic Status and Degrees Committee, SMS Registrar, and the Associate Dean of Academic Studies regularly review student transcripts and milestone progress to ensure the timely completion of degree requirements at the individual and School of Marine Science levels. A student who fails to remain in good academic standing may lose funding or be dismissed from the degree program.

The performance of graduate students in courses, on comprehensive and qualifying examinations, progress in research, and the acceptability of the thesis or dissertation submitted, must be based on objective, ethical, and professional criteria.

**Satisfactory Progress:** Student progress within the degree programs of the SMS is guided by milestones, which specify how long a student has to complete each degree requirement. Failure to meet major milestones (Qualifying Examination, Comprehensive Examination, Graduation) or complete coursework as specified is evidence that a student is not making satisfactory progress in the program and may result in loss of funding, academic probation, or dismissal from the program.

In addition to the program milestones, the research progress of each student shall be monitored by the student's advisor and committee. This evaluation shall consider the overall progress of the student toward his or her research goals. The advisor and student's committee have an obligation to give ample warning to a student who appears unable to complete his or her program of study in a timely fashion. In the event that a student's advisor and committee feel that the student is not making satisfactory progress, they will notify the student, the Associate Dean of Academic Studies, and the department chair in writing and meet with the student to design a remediation plan that includes a well-defined timeline. The student will have normally one semester to show progress toward meeting the requirements of the remediation plan to remain in their degree program.

## Academic Probation

1. A student with a cumulative grade point average less than a B will be placed on academic probation. In the case of a grade deficiency in a SMS core course, the student must make up the deficiency by retaking the course and passing with a grade of B- or better or by taking another course from the core group of Fundamentals courses and passing it with a grade of B- or better. Probation will last until a student's cumulative average is raised to at least a B (3.0) and/or the core course requirement

is satisfied, but will not exceed one calendar year. Failure to raise the cumulative grade average to B or to address a core course grade deficiency within one calendar year will result in dismissal from the School of Marine Science. Reinstatement is possible only with the approval of the Academic Status and Degrees Committee and the Associate Dean of Academic Studies.

2. A student receiving a grade of D or F will be placed on academic probation. Any student receiving more than one D or F will be dismissed from the degree program without appeal.
3. A student is expected to complete all required SMS core courses with a grade of B- or better by the end of the second year following matriculation. Significant deviations from this timeline may provide evidence of a lack of satisfactory progress in the degree program and could result in the student being placed on academic probation.
4. A student who fails to complete the qualifying exam milestone within 6 months of the program due date for M.S. students, or 12 months of the program due date for Ph.D. students, will be placed on academic probation. A student on academic probation will have one year to satisfy any outstanding milestone deficiencies in order to prevent automatic termination of the degree program.
5. A student who fails to adhere to degree program milestones may be placed on academic probation.

## Academic Residency

To fulfill the full-time academic residency requirement of the SMS, students must:

1. Successfully complete the core course requirements;
2. Be a full-time student in academic standing for two consecutive semesters.

## Appeals

### Appeal of Dismissal Due to Academic Probation

**Resulting from Low Grades, Core Course Deficiency**: A student placed on academic probation due to low grades, GPA (< 3.0) or a core course grade deficiency as defined in the SMS Graduate Catalog is required to meet with the student's academic advisor(s) and the department chair of the student's home department to define a plan of remediation. The department chair and advisor(s) will be notified by the SMS Graduate Registrar within 1 week following the grading deadline. This meeting must be scheduled by the advisor from the student's home department within two weeks following notification by the Registrar. A student may not appeal academic probation; policies on Academic Probation are stated in the SMS: Academic & General Policies section of the SMS Graduate Catalog. If 12 months after being placed on probation the student has not made up deficiencies as stated in the remediation plan, the Registrar will submit an automatic appeal of dismissal consisting of the student's academic transcript, and any other pertinent documents to the SMS Academic Status and Degrees Committee for review. The Academic Status and Degrees Committee will determine if the student is recommended for dismissal from the School of Marine Science and submit its recommendation to the Associate Dean of Academic Studies within two weeks of receipt of the appeal from the SMS Registrar. The decision of the Associate Dean of Academic Studies to accept or reject the committee's recommendation shall be final and will normally be made within one week of receipt of the committee's recommendation.

**Resulting from Failure to Meet the Qualifying Exam Milestone:** A student placed on academic probation due to failure to pass the qualifying exam within 6 months (M.S.) or 12 months (Ph.D.) of the milestone deadline (last day of month specified) as defined in the SMS Graduate Catalog is required to meet with the student's academic advisor(s) and thesis committee to define a plan of remediation. The committee and advisor(s) will be notified by the SMS Graduate Registrar within 1 week following the deadline. This meeting must be scheduled by the student's advisor within two weeks following notification by the Registrar. A student may not appeal academic probation; policies on Academic Probation are stated in the Academic & General Policies section of the SMS Graduate Catalog. If after 12 months the student remains on academic probation, the SMS Graduate Registrar will submit an automatic

appeal of dismissal consisting of the student's academic transcript, and any other pertinent documents to the SMS Academic Status and Degrees Committee for review. The Academic Status and Degrees Committee will determine if the student is recommended for dismissal from the School of Marine Science and submit its recommendation to the Associate Dean of Academic Studies within two weeks of receipt of the appeal from the SMS Registrar. The decision of the Associate Dean of Academic Studies to accept or reject the committee's recommendation shall be final and will normally be made within one week of receipt of the committee's recommendation.

### Appeal of Dismissal Due to Failure to Meet the Graduation Deadline Following Maximum Time Extension

A student who does not meet the graduation milestone must apply for an extension to the Academic Status and Degrees Committee (ASDC). Information on that process is available below under Degree Program Time Extension.

If after time extensions totaling 2 years for the M.S. program or 3 years for the Ph.D. program the student has not completed all degree requirements for graduation, the SMS Graduate Registrar will submit an automatic appeal of dismissal consisting of the student's academic transcript, and any other pertinent documents to the SMS Academic Status and Degrees Committee for review. The Academic Status and Degrees Committee will determine if the student is recommended for dismissal from the School of Marine Science and submit its recommendation to the Associate Dean of Academic Studies within two weeks of receipt of the appeal from the SMS Registrar. The Associate Dean of Academic Studies' decision to accept or reject the committee's recommendation shall be final and will normally be made within one week of receipt of the committee's recommendation.

### Appeal of a Grade

If a student feels that a grade has been incorrectly assigned, the student should discuss the matter with the instructor. If discussion between the instructor and the student cannot resolve the issue, the student may appeal to the Associate Dean who will attempt to reconcile the matter. A grade appeal must be made by the student as soon as possible but no later than the end of the student's subsequent term of enrollment after the grade in question has been assigned.

### Appeal of Non-Approval of Thesis or Dissertation by Advisory Committee

Unanimous committee approval is necessary for satisfactory completion of a student's thesis or dissertation defense and final version of the thesis or dissertation. In the event that unanimity has not been achieved following the defense or after at least the second reading of a revised thesis or dissertation by one dissenting committee member, the student may appeal to the Academic Status and Degrees Committee for an independent review. The Academic Status and Degrees Committee may, at their discretion, appoint an independent reader from the SMS faculty to render a substitute opinion which, if in agreement with the majority, will signify the acceptance and permit the independent reader to sign the approval form(s) in lieu of the dissenting committee member. Only one substitution of approval shall be permitted through appeal to the Academic Status and Degrees Committee.

## Auditing a Course

Any graduate student may register to audit a graduate or undergraduate course with permission of the instructor, the student's advisor and the Associate Dean of Academic Studies. An audit form is required and may be obtained from the SMS Registrar. Before beginning the audit, the student and the instructor must agree on what is required for the audit to be successful. The audited course is listed on the student's official transcript as either a grade of 'O' for a successful audit, or 'U' for an unsuccessful audit.

## Core Course Exemption

With the exception of MSCI 503, students who have had comparable course work elsewhere may petition for exemption from any of the SMS core courses. The application for core course exemption must be approved by the core instructor(s) of the SMS course for which exemption is sought. Prior to consulting the core instructor, the student must attach the following to the application for exemption: (1) a syllabus of the student's applicable prior course work and (2) a transcript showing the grade/credits of the student's prior course work. The SMS instructor must indicate on the application that the student's previous studies have been reviewed and that they are sufficient to permit exemption from the applicable core course. The application and attachments must be submitted in entirety to the Academic Status and Degrees Committee, in care of the SMS Registrar (Registrar@vims.edu). Credits for exempted courses will not be transferred to a student's record until the student petitions the Academic Status and Degrees Committee for credit transfer and the Associate Dean of Academic Studies approves the request. There are no exemptions from MSCI 503.

## Degree Program Time Extension

The milestone for graduation is 36 months for a M.S. student and 48-72 months for a Ph.D. student (see Marine Science, PhD). A student who does not meet the graduation milestone must apply for an extension to the Academic Status and Degrees Committee (ASDC). Adequate justification for the extension is required, as is the permission of the student's advisor and committee members. In addition, the student and student's advisor may be required to meet with the Associate Dean of Academic Studies (AD-AS) to discuss reasons for delay and remediation plans. The ASDC may grant up to two extensions for M.S. students in one-semester increments. Ph.D. students are granted a one-year extension for first time requests and up to two additional one-semester extensions.

If extensions are recommended by the ASDC and approved by the AD-AS, a student must complete all requirements for the degree program within a maximum of one year for the M.S. or two years for the Ph.D. Students who exceed these limits may continue in the degree program with the permission of AD-AS, but may be required to cover their own tuition costs out of pocket. A student who exceeds the graduation milestone by 2 years for the M.S., or 3 years for the Ph.D., may be dismissed from the degree program. A student who exceeds the time limit for degree completion and who has not been granted a time extension will not be permitted to register in the School of Marine Science.

## Grading and Quality Points

The grades A, B, C, P (pass, in certain courses), D and F are used to indicate the quality of work in a course. Also used are '+' and '-' notations, except that there is no 'A+'. 'W' indicates that a student withdrew from the university before the end of the ninth week of classes or dropped a course between the end of the ninth week of classes and the last day of class and was passing at the time that the course was dropped.

For each semester credit in a course in which a student is graded A, 4 quality points are awarded; A-, 3.7; B+, 3.3; B, 3; B-, 2.7; C+, 2.3; C, 2; C-, 1.7; D+, 1.3; D, 1.0; D-, 0.7. P carries credit but is not included in a student's quality point average. A course graded D+, D, D-, or F is included in the student's quality point average but carries no credit towards the graduate degree.

In addition to the grades A, B, C, P, D, F, and W, the symbols 'G' and 'I' are used on grade reports and in the university records. 'G' is given to work in progress towards M.S. (MSCI 599) or Ph.D. (MSCI 699) research, since there is insufficient evidence upon which to base a grade. The 'G' is not used as an alternative to 'I' when the student is the cause for the non-completion. Unlike the deferred grade 'I', 'G' does not automatically revert to 'F' after one semester.

'I' indicates that because of illness or other major extenuating circumstances the student has postponed, with the explicit consent of the instructor, the completion of certain required work. 'I' automatically

becomes 'F' at the end of the next semester if the postponed work has not been completed, unless the instructor requests an extension for another semester. An 'I' may not be extended more than once without the approval of the SMS Associate Dean of Academic Studies.

## Graduation

### Filing for Graduation

Students filing for graduation must complete an Online Graduation Application in Banner. Instructions are found at:
http://www.wm.edu/offices/registrar/studentsandalumni/graduation/onlinegraduation/index.php.

A one-time, non-refundable graduation fee, currently $145.00, will be charged to a student's account on the initial filing date. Only first-time filers can use the on-line filing process. If a student is unable to complete the requirements for graduation by the date specified, he/she must notify the SMS Registrar and complete a paper form to re-file for a new graduation date. There is no graduation fee charge for re-filing.

### Submission of Theses and Dissertations

All graduating students are required to submit electronic-only theses or dissertations to the William & Mary Institutional Repository via the ProQuest ETD Administrator website no later than 11:59 p.m. on the deadline date listed on the academic calendar in this catalog. Bound print copies of theses and dissertations are no longer submitted to the Swem and Hargis libraries. Refer to the SMS Student Handbook for additional guidelines.

### Conferral of Degrees

The College confers degrees in August, January and May of each year. The commencement ceremony is in May. Degree recipients of the previous August and January are recognized and invited to attend the May ceremony. Students who will complete requirements in August rather than May may participate in the spring commencement with permission of the Associate Dean of Academic Studies and the Vice President for Student Affairs.

## Leave of Absence

Under unusual circumstances, and following consultation with a student's advisor, the Associate Dean of Academic Studies may grant a leave of absence. An approved leave of absence is limited to a maximum of one calendar year during the student's degree program, and relieves the student of the obligation of paying tuition. It is understood that a student on leave of absence is not present on campus, not receiving financial support and not drawing upon campus resources. A student must terminate the leave of absence and be a registered student in the semester in which his/her degree requirements are completed or in which he/she graduates.

The milestone timeline and time limit for degree completion requirements will be stopped for a student with an approved leave of absence. Upon return from approved leave, the student's milestone timeline and time limit to degree completion will resume.

## Registration

**Full-time students:** All continuing full-time degree-seeking students who have not been granted leave are required to register for a minimum of nine credit hours each semester, and a minimum of two credit hours during the summer session. The exception is students who have been granted Research Graduate (RG) status, who must register full-time during the summer. Full-time enrollment during the summer is defined as three credit hours in any combination of summer terms, and enrollment at the level of two credit hours is considered half-time. A student must be registered in the semester during which he or she

intends to graduate. After having achieved candidacy, students may be eligible for Research Graduate Status.

Note: Only students enrolled full-time during the full academic year (including summer) are eligible for the college-endorsed Student Health Plan (see www.wm.edu/offices/healthcenter/studentinsurance). Full-time students are eligible to access services at the Student Health Center during the fall and spring semester. The Student Health Center fee for the summer sessions is optional; you must pay it separately to use the health center over the summer (see www.wm.edu/offices/healthcenter/fees-and-charges).

**Off-site students:** Off-site degree-seeking students are defined as those who do not receive any funding (assistantship, fellowship, workship) or make use of on-site resources of VIMS or the W&M campus in Williamsburg. Students who have achieved candidacy and completed course and research requirements are allowed to finish their degree programs in a special part-time registration status. An off-site student pays for one credit at the out-of-state rate or three credits at the in-state rate during fall and spring semesters, based on his/her domicile status. Students enrolled for the summer are required to register for a minimum of two credit hours during the summer session.

**Part-time students:** A student who wishes to pursue part-time studies should consult with the Associate Dean of Academic Studies. Part-time students are not eligible for assistantships.

**Employment:** Students who decide to take a job before completing the degree, or those employed at the time they enter the graduate program, are required to meet milestones and complete all requirements for graduation within the same time limits given for M.S and Ph.D. students. The same degree program milestones and SMS rules and regulations apply unless permission to change degree program milestones has been recommended by the Academic Status and Degrees Committee and approved by the Associate Dean of Academic Studies.

**VIMS and W&M Employees:** Employees of VIMS or W&M may be eligible for the Employee Educational Assistance program. Employees who wish to take SMS courses must be approved by the Associate Dean of Academic Studies. Upon approval, employees must submit a completed VIMS/SMS non-degree-seeking student application along with written approval from the SMS course instructor(s) to the SMS Graduate Registrar prior to course registration.

## Changes in Registration

All changes in student schedules must be done in accordance with relevant deadlines as indicated in the Academic Calendar. Any changes requested after the close of registration require approval of the instructor(s) involved and the Associate Dean of Academic Studies. Students may not add courses after the last day for changes in registration. If a student drops a course or courses before add/drop ends, the course or courses dropped will be removed from the student's record. If the student drops a course or courses after the add/drop period ends through the last day of classes, the grade of "W" or "F" will be awarded by the instructor in the course depending upon whether or not the student was passing at the time the course was dropped. A student may not drop a course after the last day of classes. If a student does not complete a course, the grade of "W" or "F" will be awarded by the instructor in the course, and with the approval of the Associate Dean of Academic Studies and the appropriate authorities at the College, depending upon whether or not the student was passing at the time the course ended.

A student wishing to withdraw from a course (or courses) because of medical reasons after the add/drop period ends may apply to the Associate Dean of Academic Studies for approval. If approved, a grade of "W" will appear on the transcript for each course.

## Retaking a Course

In order for a core course to satisfy the core course requirements, a grade of B- or above must be earned in the course. A deficiency in a core course may be made up by retaking the course and passing with a grade of B- or better or by completing another course from the core group with a grade of B- or better. In the case of non-core coursework, degree credit is granted only for coursework in which a student earns a grade of 'C' or above. A graduate student may repeat one course outside of the core curriculum in which a grade of 'C' or lower is received. When a course is repeated, both the initial and new grades earned are included in computations of quality point requirements.

## Transfer of Academic Credit

On the recommendation of the Academic Status and Degrees Committee and the approval of the Associate Dean of Academic Studies, a student admitted to a degree program may apply up to 15 hours of graduate credit for graduate courses equivalent to the SMS core courses earned at another accredited institution. Credit may be transferred only for courses in which the student received a grade of 'B' or better and will not be counted in compiling the student's quality point average at William & Mary.

To petition for acceptance of transfer credits, the approved application must be submitted to the Academic Status and Degrees Committee in care of the SMS Registrar, (Registrar@vims.edu). The application must include documentation for the course(s) proposed to supplant the core course(s), and a statement from each School of Marine Science faculty teaching the course for which transfer credits are sought. The faculty member's statement must indicate that the student's previous studies were reviewed and that those studies are sufficient to permit acceptance of the applicable transfer credits.

Students may petition for up to six additional credit hours of graduate work not already applied toward another degree, but the total transfer of credits cannot exceed 15 hours. The credits must have been earned in courses appropriate to the student's program in the SMS and must fall within the time specified by the general college requirements for degrees.

## Withdrawal from the Program

Withdrawal from the program constitutes termination of the student's program of study in the School of Marine Science. Withdrawal may be voluntary on the part of the student or be imposed by the SMS for reasons of academic deficiency, failure to make satisfactory progress in research, or other reasons pursuant to the W&M Student Handbook and the W&M Honor Code (see section General Statements of Policy above). The Associate Dean of Academic Studies will place a student on a leave of absence for one semester if they fail to register for a regular semester (Fall or Spring) and have not requested a leave of absence or permission to withdraw. If the student has not applied for a leave of absence prior to the end of registration for the next regular semester, or if the Associate Dean of Academic Studies is not able to justify continuing the leave of absence, the student's record will be marked "withdrawn unofficially."

A student who withdraws from the College after the add/drop period, will be awarded a 'W' or 'F' by the faculty member teaching each course in progress at the time of withdrawal.

A student who withdraws from the program after the beginning of the school year should obtain appropriate faculty signatures on a Change in Graduate Student's Registration form, a Withdrawal form and a Student Check-out Sheet. All forms should be returned to the Associate Dean of Academic Studies.

## Reinstatement after Withdrawal

A student wishing to be considered for reinstatement after withdrawal must reapply to the School of Marine Science under the procedures in effect at the time of reapplication.

## SMS: Admission



Within the limits of its facilities and its obligations as a state university, William & Mary offers the possibility of admission to all qualified students without regard to sex, race, color, age, religion, national origin, sexual orientation, or disability.

### General Requirements for Admission

Students interested in pursuing marine science as a profession should consult with their academic advisors, or the School of Marine Science, Office of Academic Studies (admissions@vims.edu), early in their college careers to identify an academic program that will prepare them for graduate study in marine science. All applicants to the School of Marine Science should have a strong background in basic science, including physics and chemistry (through organic), mathematics through calculus, and contemporary biology courses. The prospective chemical, geological or physical oceanography student should have an undergraduate degree with appropriate course work in chemistry, geology or related geophysical science, physics, meteorology, mathematics or engineering, and a solid quantitative background. Course work in statistics is highly recommended for all students.

For additional School of Marine Science admission information and the on-line application, please visit our website at: http://www.vims.edu/education/graduate/admissions/index.php

### Degree-Seeking Students

Students are admitted as Regular or Provisional graduate students in either the M.S. or Ph.D. program. For matriculation as a Regular graduate student, an applicant must have completed the requirements for a bachelor's degree at an accredited college, have the recommendations of the SMS Admission Committee and a faculty advisor, and be approved by the Associate Dean of Academic Studies of the School of Marine Science.

A student without a master's degree enters the program as a master's student; however, those wishing to continue directly to the Ph.D. degree may apply to bypass the M.S. degree, provided the student meets the criteria for the bypass (see M.S. Bypass Option).

An applicant judged deficient in preparatory studies or other areas may be admitted as a Provisional student. A Provisional student may petition for Regular student status after successful completion of those requirements stipulated in his/her notification of admission. Petition for change in status shall be reviewed by the Academic Status and Degrees Committee, using as criteria overall academic performance and performance standards previously specified on the student's notification of admission. If recommended by ASDC, the petition must be approved by the Associate Dean of Academic Studies. Graduate credit earned by a Provisional student will be applied toward the graduate degree upon successful conversion to Regular student status.

### Non Degree-Seeking Students

The School of Marine Science accepts non-degree seeking applications from individuals who have earned a bachelor's degree from an accredited college or university. Permission to enroll in a graduate marine science course as a non-degree seeking student must be applied for every semester and does not imply admission to any graduate program at the College of William & Mary. With permission of the Associate Dean of Academic Studies, graduate credit earned in a marine science course as a non-degree seeking

student may be applied toward a marine science degree if the student is admitted to a SMS degree program.

## SMS: Financial Policies

- Domicile
- Graduate Tuition
  - Tuition Bills for SMS Students
  - Eligibility for In-State Tuition for Graduate Assistants
  - Research Graduate Student Status
- Graduate Assistantships & Fellowships
- Student Health Insurance Requirement

Additional W&M Information:

- Billing, Payment of Accounts and Financial Penalties
- Students Who Withdraw from the College
- Withholding of Transcripts and Diplomas in Cases of Unpaid Accounts

### Domicile

A student domiciled in Virginia is eligible for in-state tuition rates. To obtain the in-state rates, a complete *Application for Virginia In-State Tuition Privileges* form must be submitted by the first day of classes of the semester for which in-state eligibility is sought.

For more information on establishing domicile, refer to the catalog section Eligibility for In-State Tuition Rate. All questions about eligibility for domiciliary status should be addressed to the Office of the University Registrar, (757) 221-2808.

A full-time, degree-seeking graduate student of the School of Marine Science may be eligible for a waiver of the out-of-state (non-resident) tuition rate to the in-state (resident) rate, but out-of-state domicile status is not changed.

### Graduate Tuition

The College reserves the right to make changes in its charges for any and all programs at any time, after approval by the Board of Visitors.

| **SMS Tuition & General Fees<br>Academic Year 2019-2020** | |
|---|---|
| **Full-time (per semester)** | |
| In-State (Resident) | $8,220.00 |
| Out-of-State | $17,400.00 |
| **Part-time or Summer<br>(per credit hour)** | |
| In-state (Resident) | $585.00 |
| Out-of-State | $1,383.00 |

SMS students are required to register for a minimum of 2 credit hours over the summer sessions (see below).
A $25 registration fee and $55 comprehensive fee is also required for the summer session.

Full-time degree-seeking students of the School of Marine Science must register for (9) credit hours or more during the Fall and Spring semesters. Any student registered for nine hours or more per semester for any course level (graduate or undergraduate courses) is considered to be a full-time student and will be charged the full-time rates unless qualified for Research Graduate Student status. The tuition charged will be based on a student's established domiciliary status.

Note: Most full-time non-resident degree-seeking graduate students who are employed as teaching assistants, research assistants, or graduate assistants of SMS qualify for in-state tuition (see below).

Degree-seeking graduate students will be charged the part-time rates for part-time enrollment (eight hours or less per semester) based on their established domiciliary status. For the School of Marine Science, part-time enrollment by degree-seeking students must be approved by the Associate Dean of Academic Studies.

All degree-seeking students of SMS must register for a minimum of (2) credits during the summer sessions and will be charged based on their established domiciliary status unless they otherwise qualify for in-state tuition (see below). Full-time enrollment in the summer is defined as a total of (3) credit hours or more in one summer session or in any combination of summer sessions, and half-time enrollment is defined as (2) credit hours in one summer session or in any combination of summer sessions.

Note: Enrollment for a minimum of (3) credit hours during the summer sessions is required to maintain eligibility for the college-endorsed Student Health Insurance Plan or for reduced summer tuition as a Research Graduate Student.

Part-time students who are not degree-seeking students (non-degree seeking post-baccalaureate students), must complete the Application for Virginia In-State Tuition Privileges to determine eligibility for in-state tuition. Students determined to be domiciled outside of Virginia will pay out-of-state rates. Those determined to be residents will pay according to the in-state rates.

Off-site students will be charged tuition per credit hour based on their established domiciliary status.

Auditing fees are the same as those specified for part-time students, unless the auditor is a full-time student. A student must register for the course and permission to audit must be obtained from the instructor prior to registration.

For more information on tuition and domicile, please see W&M's statement regarding Eligibility for In-State Tuition Rate. Please contact the SMS Registrar (registrar@vims.edu) for additional infomation.

Senior citizens of Virginia who wish to attend School of Marine Sciences courses are invited to contact the Associate Dean of Academic Studies for full details.

**Tuition Bills for SMS Students**

A SMS student who has a commitment of tuition support from the Office of Academic Studies or from the major professor will receive a tuition eStatement from the W&M Bursar for each semester and for summer sessions. It is the student's responsibility to forward tuition bills to the their department business manager for payment. Please read W&M's billing and account payment policies, including the policy on financial penalties such as late fees. Failure to receive a bill does not waive the requirement for payment when due and will not prevent the application of a late fee. In addition, when a student is prevented from registering (hold on account) for failure to pay a campus parking ticket or due to other outstanding balances that are the student's responsibility, the student will be responsible for any financial penalities.

**Eligibility for In-State Tuition for Graduate Assistants (Waiver of Out-of-State Tuition Rate)**
Full-time degree-seeking graduate students of SMS who are not Virginia residents, but who are employed as teaching assistants, research assistants, or graduate assistants may qualify for in-state tuition if they receive at least $4,000 of stipend during the academic year. Eligibility will be determined by the Associate Dean of Academic Studies and submitted to the Provost for final approval.

**Research Graduate Student Status**
Upon the recommendation of the major professor and approval by the Associate Dean of Academic Studies, a full-time graduate student who has achieved candidacy may apply for Research Graduate Status. Master's students are eligible for a single Fall or Spring semester, usually the semester of graduation. For doctoral students, Research Graduate Status will commence in the first full semester (e.g., Fall or Spring semester) following admission to candidacy and will continue through a student's normative graduation date (i.e., graduation milestone) as determined by the faculty of the School of Marine Science.

Awarding of Research Graduate Status is contingent on the availability of funds. In addition, the following conditions must be met:

1. The student has completed all SMS and departmental required coursework.
2. The student has passed the Qualifying Examination and the prospectus has been approved.
3. A doctoral student has passed the Comprehensive Examination
4. The student is not employed significantly in any activity other than research and writing in fulfillment of degree requirements.
5. The student is present on campus or is engaged in approved fieldwork related to his/her thesis or dissertation.

While classified as a Research Graduate, a student should register for (9) credit hours of thesis or dissertation, for which there will be (3) billable credit hours at the part-time rate. The student may elect to utilize up to two (2) of the three paid credit hours for formal coursework and may register for additional coursework only upon payment of the generally applicable additional part-time tuition. The student who is approved for Research Graduate Status should check with the SMS Registrar about proper registration procedures.

A student with Research Graduate status is not eligible for services (e.g., student health and athletic events) unless required fees are paid.

## Graduate Assistantships and Fellowships

Financial aid in the form of graduate research assistantships, teaching assistantships and fellowships is available to full-time students in degree programs of the School of Marine Science. Most full-time graduate students in the School of Marine Science receive full financial support, including tuition. Assistantships and fellowships have been adjusted to include an allowance for health insurance. Continuity of student funding is accomplished through a combination of grants and contracts to individual faculty, teaching assistantships, external fellowships, and institutional general and endowment funds, as available.

To receive available funding, a student must remain in good academic standing and demonstrate satisfactory progress as defined by university degree requirements and regulations of the School of Marine Science. This includes meeting the milestones for normative progress in the degree program. The student may not hold any other employment or appointment of a remunerative nature without approval of the Associate Dean of Academic Studies.

The School of Marine Science places strong emphasis on student involvement in research activities. All students who receive financial aid through SMS are expected to participate an average of twenty hours per week in their advisor's group activities and in a research project or program as determined jointly with their faculty advisor. For graduate research assistants, every effort will be made to ensure that assistantship duties are relevant to the student's course of study and research program.

More information regarding funding for SMS graduate students is available below and on the website: www.vims.edu/education/graduate/funding/

**Fellowships**
The School of Marine Science, with funding from the VIMS Foundation and the Office of Academic Studies, awards fellowships to approximately a third of SMS students each year.

**Teaching Assistantships**
Teaching assistantships support student professional development and the classroom activities of SMS faculty. The time commitment for all assistantships is approximately the same (i.e., twenty hours per week). All students on teaching assistantships are eligible for consideration for in-state tuition rates.

**Graduate Workships**
Graduate workships allow SMS students to expand the breadth and depth of training while supporting the operational needs of the Virginia Institute of Marine Science. A particular workship assignment may be recurring, but is generally considered to be short-term in duration.

No student may work more than 26 hours each week, averaged over an annual period.

### Student Health Insurance Requirement
William & Mary requires all full-time undergraduate, graduate and all F-1 & J-1 international students to have adequate health insurance coverage throughout the school year. An allowance sufficient to cover the cost of the College-endorsed Student Health Insurance plan is included in the stipend of full-time degree-seeking students of SMS who receive an assistantship that is administered through VIMS.

Note: Only students enrolled full-time during the full academic year (including summer) are eligible for the college-endorsed Student Health Plan (see www.wm.edu/offices/healthcenter/studentinsurance). Full-time students are also eligible to access services at the health center during the fall and spring semester. The Student Health Center fee for the summer sessions is optional; a student must pay it separately to use the health center over the summer (see www.wm.edu/offices/healthcenter/fees-and-charges).

Students who already have health insurance must submit a waiver request by the posted deadline each academic year. The waiver must be approved to avoid being enrolled in and billed for the university-endorsed plan. Visit www.wm.edu/health/insurance for more information about the insurance requirement or the university-endorsed insurance plan. If you have any questions, please email the Student Insurance Coordinator at student.insurance@wm.edu or call (757) 221-2978.

For additional information on the Student Health Center and health insurance requirement, please refer to W&M: Student Services.

## SMS: VIMS Facilities & Service Centers

**VIMS Programs, Centers, & Facilities**

- Hargis Library
- Analytical Service Center
- Andrews Hall
- Chesapeake Bay Hall
- Davis Hall
- Eastern Shore Field Laboratory
- Field Operations
- Information Technology & Network Services
- Nunnally Hall
- Seawater Research Laboratory

**Research Facilities & Equipment by Department**

- Dept of Biological Sciences
- Dept of Aquatic Health Sciences
- Dept of Fisheries Science
- Dept of Physical Sciences

**William J. Hargis, Jr. Library**: The diverse collections of the Hargis Library, located in Watermens Hall, support the major programs of studies of the School of Marine Science as well as the research and advisory service programs of VIMS. These specialized collections are a blend of books, technical reports, online and print based journals as well as topographic maps and nautical charts. Many of the VIMS scientific reports have been digitized and are available for viewing by connecting to the library's website.

Current research literature can be identified by using the major scientific research databases such as the Web of Science, Science Direct, ASFA, CSA Biological Sciences, Environmental Sciences and Pollution Management, GeoRef, and Oceanic Abstracts. These and other electronic resources are accessible both on and off campus. Students, faculty and staff can also connect to the broad array of over 200 databases available via main campus connections and VIVA - the Virtual Library of Virginia, as well as the materials in the collections of the other William and Mary libraries. In addition to the College collections, research materials from other institutions can be acquired for your use via Hargis Library's InterLibrary Loan Service.

Librarians are able to provide help in locating information, identifying the best tools for your research project and clarifying how to access resources. More information on Hargis Library can be viewed at web.vims.edu/library.

**Analytical Service Center (ASC)**: The ASC provides water and sediment analyses to students, scientists and governmental agencies. The ASC has researched, refined and developed methodologies for analyses in a wide spectrum of environmental matrices. The quality of data is the result of thorough statistical controls, documentation, and training. ASC instrumentation is state-of-the-art, with computer control interfacing, background correction and optimization for saline samples.

**Andrews Hall (AH)**: This 71,000 square foot facility, which was completed in 2007, houses programs in marine ecology and biological oceanography, geological and physical oceanography, fisheries and aquaculture. The facility includes class and meeting rooms for the academic program, which can also be used for distance learning and videoconferencing

**Chesapeake Bay Hall** (CBH): Completed in 1997, this facility provides 60,000 square feet of research facilities, including labs for advanced research in chemistry, biogeochemistry, toxicology, pathobiology, microbiology, genetics, physiology, plankton ecology, nutrient cycling and parasitology.

**Davis Hall (DH)**: Completed in 2018, this 32,000 square foot facility is the first LEED-certified building on the Gloucester Point campus. Davis Hall is named after VIMS' Founding Father, W&M Biology Professor Donald W. Davis. The building houses the Center for Coastal Resources Management, Virginia

Sea Grant, Information Technology & Networking Services, Marine Advisory Services and News & Media Services.

**Eastern Shore Field Laboratory** (ESL): The VIMS ESL facility, on Virginia's Eastern Shore, offers access to coastal lagoons, salt marshes, barrier islands and coastal waters. Located in Wachapreague, about 2 hours from Gloucester Point, this facility supports research on a wide variety of coastal issues with special emphasis on bivalve aquaculture. The ESL houses a hatchery, nursery, seawater flume, nearby bivalve grow-out sites and has a well-equipped laboratory, small boat facility, and dormitory.

**Field Operations:** Field Operations provides a broad range of skilled, technical services in addition to maintaining and operating the vessel fleet. They assist in designing field programs, operating vessels, and conducting field work either locally or away. Staff members also design, fabricate, and repair complex electronic and mechanical instruments. Field Operations supports the diving program, which complies with AAUS standards. In addition to the 65-ft R/V Bay Eagle, the 29-ft R/V Fish Hawk, and the 29-ft R/V Ellis Olsson, a sizeable fleet of smaller boats can be hauled by trailers. On request, Field Operations personnel provide training to qualify students to operate boats. A new research vessel, the 93-ft R/V Virginia, will join the VIMS fleet in Fall 2018.

**Information Technology and Network Services (ITNS):** ITNS provides technical support for Information Technology resources used on campus. Supported desktop and laptop systems are primarily Windows and Macintosh. ITNS maintains a campus-wide backbone network, which has high-speed links to the Internet and NLR, the National Research Network, via Network Virginia. ITNS provides a wide variety of IT services such as file, print, E-mail, web, database, data storage, high performance computing, and video conferencing. Students have access to up-to-date hardware and software in computing labs, the library and via mobile laptop systems that can be used in any classroom. ITNS staff assist students in configuring and using personally owned computer systems that meet or exceed minimum requirements.

**Nunnally Hall**: Completed in 1992, Nunnally Hall houses modern laboratories, dissection facilities for large vertebrates, and an extensive collection of fishes that includes approximately 128,000 specimens representing approximately 245 families of marine and freshwater fishes.

**Seawater Research Laboratory (SRL)**: This 47,000 square foot facility allows scientists from VIMS and other institutions to conduct research on living marine and estuarine organisms under controlled conditions, allowing for great diversity with respect to the type(s) of organisms which may be studied and the conditions of exposure. The SRL consists of six primary contained wet lab areas, including some that are highly specialized to allow the safe containment and treatment of aquatic pathogens and toxins. Special care is taken to protect the laboratory personnel who work within these areas. State-of-the-art filtration and effluent treatment technologies are utilized to protect the receiving waters of the York River estuary from exposure to these compounds as well.

## Research Facilities and Equipment by Department

### Department of Biological Sciences

Website: http://www.vims.edu/research/departments/bio/

The Department of Biological Sciences, housed primarily in Chesapeake Bay and Andrews Halls, is well equipped with state-of-the-art equipment for conducting field and laboratory research. Major facilities include several light-, temperature- and humidity- controlled environmental chambers, a greenhouse with running seawater and temperature controlled tanks for aquatic macrophyte photosynthesis-related studies and plant restoration work, an expansive wet laboratory facility, and a large array of flow-through

seawater mesocosm tanks. Laboratory instrumentation includes: gas chromatograph fitted with various detectors, high performance liquid chromatograph, infrared gas analyzer, elemental analyzer, scintillation counter, auto-analyzer for nutrient analyses, computer-assisted image analysis hardware and software, biosafety hoods, fluorometers, spectrophotometers, various microscopes including access to electron microscope facilities, a Coulter Altra flow cytometer, a FLOWCAM imaging cytometer, Total Organic Carbon and Total Nitrogen analyzer, Elzone particle counter/sizer, and microelectrode microprofiler.

The department maintains an excellent assortment of field sampling gear. Bottom samplers include an assortment of box corers, grab samplers, and piston-type corers. Sediment-profile and surface cameras as well as a bottom sled with profiling plow, video, and still photography capabilities allow rapid bottom mapping. A variety of nets are available for plankton sampling. A Fetch-class Autonomous Underwater Vehicle (equipped with CTD, 600 kHz sidescan sonar, underwater video, fluorometer/turbidity sensor, and fast response dissolved oxygen sensor), a vertical profiler and towed sensor packages including a towed undulating vehicle along with a variety of data sondes, fluorometers and dissolved oxygen sensors allow continuous, under-way and fixed station monitoring of water quality. The department also has access to state-of-the-art facilities for molecular genetic analyses, including automated DNA sequencers and environmental chemistry laboratory facilities.

The Department of Biological Sciences maintains close contacts and shares instrumentation with the other departments at VIMS. Also available are computer facilities with support of both Windows and Macintosh platforms ranging from in-lab laptop units, to work stations supporting LANs, to an institute-wide network.

The present facilities and equipment available in the department are described in more detail on the department website.

**Department of Aquatic Health Sciences**

Website: http://www.vims.edu/research/departments/eaah/

Laboratories of the Department of Environmental and Aquatic Animal Health are located in Chesapeake Bay Hall and Andrews Hall. The laboratories in Chesapeake Bay Hall are equipped with state-of-the-art instrumentation for studies on environmental chemistry, toxicology, immunology, electron microscopy, pathobiology, and microbiology.

Analytical instrumentation is available to identify and quantify a wide range of organic and inorganic contaminants in water, sediment and biota. This allows faculty and students to develop new analytical methodologies, detect emerging contaminants and track pollutants in the environment at trace levels. For example, an atomic absorption spectrophotometer is available for measuring heavy metals at low ambient concentrations. Gas chromatographs, high performance liquid chromatographs, mass spectrometers and enhanced solvent extractors are maintained for the determination of organic pollutants.

Genetic and molecular analyses of pathogenic organisms are performed using DNA sequencers, PCR thermal cyclers, a real-time PCR system and associated electrophoretic and imaging equipment. State-of-the-art electron microscopes allow identification of microorganisms (e.g., harmful algae) and ultrastructural analysis of diseased organisms, supplementing traditional light microscopy.

Instrumentation is available for sophisticated research on enzyme systems that play a role in detoxification of chemicals and lipids that are involved in accumulation of hydrophobic chemicals and in resistance to some disease organisms. The immunology laboratory has the capability to produce monoclonal antibodies for a variety of antigens.

A 43,000 square foot Seawater Research Laboratory (SRL) provides opportunities for toxicant and pathogen challenge studies and includes a Level 3 biosafety facility. The facility has flowing seawater, several configurations for aquaria, heated and chilled lines for temperature control and separate laboratories for quarantines.

The present facilities and equipment available in the department are described in more detail on the department website.

**Department of Fisheries Science**

Website: http://www.vims.edu/research/departments/fisheries/

The Department of Fisheries Science, housed in Nunnally Hall, Chesapeake Bay Hall and Andrews Hall, comprises several programs, each with a fully equipped laboratory, a variety of collection and sampling equipment, and extensive computer facilities.

The Fisheries Science Laboratory has a dedicated age and growth laboratory equipped with multiple high quality optical microscopes linked to an image analysis system. The facility supports rapid analysis of hard structures for age determination and automated morphometric measurements. Also available are otolith sectioning and grinding equipment, hydraulic scale presses, and digital scale projectors. The fish-processing laboratory is a large, multi-user facility designed for the work-up of field samples and storage of field equipment. The lab is equipped with automated fish measuring boards and electronic balances that are linked to the departmental computer network.

The Marine Conservation Biology and Crustacean Ecology Programs maintain several mesocosm tanks suitable for a range of small (crabs) to large (sea turtles) marine species, as well as a Remotely Operated Underwater vehicle equipped with color video, B&W high-resolution camera, integrated navigation and GPS, laser scaling, side-scan sonar and 150-m depth capability. The Programs also maintain various types of benthic and epibenthic sample gears suitable for small and large research vessels.

The Molluscan Ecology Program's laboratory is well equipped for physiological and ecological studies with a UV-VIS spectrophotometer, centrifuges, a fluorescence microscope, compound and dissecting microscopes, and an image analysis system. The Fisheries Genetics Program maintains a large laboratory that is fully equipped to undertake a variety of genetic analyses. Major equipment includes automated DNA sequencers, a bank of thermal cyclers, refrigerated centrifuges, ultracentrifuges, a vacuum concentrator, a digital imaging system, several ultra cold freezers and a walk-in cold room.

The Fisheries Ecosystem Modeling and Assessment Program maintains a laboratory with a full complement of the equipment needed for finfish diet and analysis and age determination, including several compound and dissecting microscopes, balances, low-speed isomet saws, and hot plates.

Nunnally Hall contains a collection of fishes with approximately 128,000 specimens representing 245 families. This research and teaching collection incorporates extensive holdings from Chesapeake Bay, the Middle Atlantic Bight, Appalachian freshwater habitats, and an internationally recognized collection of deep-sea fishes. Associated with the collection are laboratories equipped with high-resolution microscopic imaging and digital x-ray systems.

Two wet lab facilities are available to department faculty and students. The general wet lab contains a flow-through system with several wet tables and tanks. In addition, a special greenhouse/wet lab houses the large sea turtle holding tanks, which are supplied with re-circulated filtered seawater. Adjacent to the sea turtle greenhouse is a 7,560-gallon tank used for research.

Physiology laboratories are available on the VIMS main campus and at the Eastern Shore Laboratory containing equipment for measuring metabolic rates, as well as conducting a broad range of advanced procedures relevant to environmental physiology, including cardio-respiratory physiology and sensory biology.

Monthly surveys of juvenile fishes and crabs are conducted throughout the Bay and on three major rivers. Plankton studies, larval fish research, and reproductive studies of recreational fishes are conducted in the Bay as well as offshore.

The present facilities and equipment available in the department are described in more detail on the departmental website.

**Department of Physical Sciences**

Website: http://www.vims.edu/research/departments/physical/

The Department of Physical Sciences, housed primarily in Andrews Hall, maintains state-of-the-art equipment for conducting high-quality field and laboratory research. Major field equipment includes: Laser In-Situ Scattering and Transmissiometry (LISST); sea-bed hydraulic flume; and bottom boundary layer instrumental tetrapod systems for measuring bed stress, wave and currents, sediment resuspension, and bed-level changes. A variety of instrumentation including tide gauges, current meters, conductivity-temperature-depth (CTD) profilers, fluorometers, dissolved oxygen (DO) meters, fathometers, dual-frequency side-scan sonars, variable frequency seismic profiling systems, directional wave gauges, turbidity sensors, acoustic Doppler current profilers (ADCP), and Kasten and box corers are available for field studies. The department maintains microwave and GPS navigation systems for accurate positioning of research vessels.

The department houses extensive laboratory instrumentation, including: an isotope ratio mass spectrometer coupled to an elemental analyzer; an elemental analyzer; UV/Vis spectrophotometer; gas chromatographs with flame ionization and electron capture detectors; quadrupole mass spectrometers; EDS system with full SEM imaging capabilities; nitrogen adsorption surface area and porosity analyzer; high performance liquid chromatograph with UV absorbance and liquid scintillation detectors; an annular flume; five intrinsic germanium gamma spectrometers; eight channel alpha spectroscopy system; digital X-ray radiography unit; Coulter multisizer automatic particle analyzer; rapid sediment analyzer. Computer facilities include laptop units for field use, work stations, a ~40 node cluster located on VIMS' campus, and access to the College of William & Mary's SCI-CLONE supercomputer cluster.

The present facilities and equipment available in the department are described in more detail on the department website.

## SMS: Departments

Most advanced coursework and research training for SMS students is offered at the departmental level. For information about the faculty, graduate courses, research programs, facilities and equipment of each department, please use the links below.

- Department of Biological Sciences
- Department of Aquatic Health Sciences
- Department of Fisheries Science
- Department of Physical Sciences

## Department of Biological Sciences



**Areas of Research:**



www.vims.edu/research/departments/bio

The faculty of the Department of Biological Sciences includes a diverse group of estuarine and coastal marine ecologists and biological oceanographers who work in a wide range of research areas, such as biogeochemical cycling; physiological, population, and community ecology; and whole ecosystem modeling, using state-of-the-art approaches. Scientists in the department study benthic, planktonic and nektonic organisms and the temporal and spatial patterns and processes that control their distribution, diversity and ecological functioning in estuarine, coastal and open ocean regimes.

## Preparatory Studies

A strong background in modern biology and basic science is required.This should include college math through calculus, chemistry through organic, and physics.  Courses in statistics may be helpful, but are not prerequisites. Students should have strong writing and verbal communication skills. Past research experience and training are highly desirable. Students are strongly encouraged to contact and discuss plans with prospective advisor(s) before applying to the graduate program.

## Typical Course of Study

In addition to the core courses required of all SMS graduate students, Biological Sciences students are required to take one advanced course within the department (over the MSCI 550 level with 3 or more credits) to fulfill the advanced principles course requirement unless exemption is granted by instructor and approved by the Associate Dean of Academic Studies. Students are strongly encouraged to take MSCI 501D - Fundamentals of Marine Science, Biological Oceanography unless they can demonstrate to their advisory committee that they have successfully taken a similar course as part of earlier graduate studies. Students are required to enroll in MSCI 515A - Biological Sciences Seminar each spring semester. Additionally, appropriate courses related to the student's area of specialization will be included, in consultation with the student's advisory committee. These might include Plankton and Microbial Ecology for students specializing in plankton biology and Marine Benthos, Seagrass Ecology, or Secondary Production for those specializing in benthic systems. Theoretical Ecology, Ecological Modeling and computer applications are recommended for students whose research will rely on modeling or theoretical mathematical formulations.

## Areas of Research

### Marine and Benthic Ecology

Studies focus on the processes governing structure and functioning of communities and ecosystems. Current research includes: experimental and observational studies of recruitment, growth, and production; role of benthic organisms and communities in the fate and transfer of nutrients, organic matter, energy and sediments; effects of natural and anthropogenic disturbances on benthic community structure and functioning; consumer-prey relationships and benthic support of higher trophic levels; systematics and biodiversity of benthic animals and evolutionary ecology. Faculty members employ diverse research approaches including field and mesocosm experimentation, biogeochemical analyses, remote sensing, molecular genetics and a range of modeling techniques. Most research focuses on benthic systems of the land-sea margins, including tidal freshwater, estuarine and coastal regions and coral reefs.

## Ecosystem Modeling

The ecosystem modeling program develops and employs numerical simulation models as integrative and synthetic tools for ecosystem analysis to address basic science and applied management questions. Current efforts include modeling studies of coastal and watershed carbon and nutrient cycling, estuarine eutrophication, submerged aquatic vegetation, multispecies trophic interactions, regional ocean ecosystem models and climate-related ecosystem changes. Studies involving optimal methods for combining in situ and satellite-based biological data with numerical models are also ongoing. Working with hydrodynamic, fisheries, and water quality modelers, an over-arching goal of the program is to develop cross-disciplinary models that address both basic and applied ecological research questions.

## Macrophyte Ecology

Studies in this program concentrate on submerged and emergent macrophyte species that dominate shallow subtidal and intertidal marine, brackish, and freshwater areas. Current research includes studies on plant distribution and abundance, restoration ecology, plant dispersal mechanisms, plant responses to environmental variability, plant growth and productivity, carbon and nitrogen cycling, plant-herbivore interactions and ecosystem simulation modeling. The program encourages multi-investigator and multi-institutional collaborative efforts.

## Marine Physiological Ecology

This area of research focuses on understanding the adjustments organisms make to their physiology in order to survive and reproduce in their constantly changing environment. The emphasis is on physiological, molecular, and ecological responses of marine and estuarine organisms, including plankton, ecologically and economically important benthic invertebrates (e.g. oysters), and foundation species (e.g. intertidal mussels and tropical reef corals). Mechanisms of acclimatization and adaptation to local environmental conditions are explored. This work spans local to global scales and multiple levels of biological organization. Current research employs communities and ecosystems that are exposed to natural and anthropogenic stressors, examining the current and future impacts of climate or other environmental change. Work in this interdisciplinary field includes manipulative laboratory experiments, field observations, and oceanographic sensor technology.

## Microbial Ecology and Nutrient Cycling

Studies focus on the role of microbes and microbially-mediated biogeochemical processes in estuarine, coastal and marine environments, the fate of nutrients in benthic and pelagic ecosystems, and the roles microbes and nutrients play in regulating aquatic food webs and primary and secondary production. Microbial ecology and microbially-mediated biogeochemistry are studied in habitats ranging from intertidal marshes and mudflats to shallow subtidal, littoral zone systems, coastal embayments, riverine systems, large estuaries such as Chesapeake Bay, and the coastal ocean including areas adjacent to Antarctica.

## Biological Oceanography/Plankton Processes

Research is focused on biological populations and processes as integral components of the dynamic, interconnected marine biosphere that provides half the food and absorbs half the anthropogenic carbon dioxide on the planet. The emphasis is on lower trophic levels in estuarine, coastal and oceanic food webs, including bacteria, phytoplankton, micro-, meso- and gelatinous zooplankton, harmful algal blooms and marine snow. Processes studied in all ecological provinces of the global ocean include fluxes of carbon and nitrogen between the various organic and inorganic pools, nutrient limitation, organic matter (dissolved and particulate) cycling, and biogenic trace gas production and consumption. The biotic processes regulating these transformations, the physical mixing and circulation mechanisms affecting their transport and redistribution, and the linkages and feed backs between the water column and all its boundaries (benthos, atmosphere, land margins) are emphasized. Collaborative research aimed at understanding the links between plankton dynamics and recruitment of economically important fisheries populations is also pursued.

### Antarctic Oceanography

The Antarctic continent and the Southern Ocean together regulate the Earth's weather, and the Southern Ocean, a major component of the planetary carbon cycle, is a key engine of global climate change, a source of rich fisheries, and haven for marine birds and mammals. VIMS programs provide an opportunity for graduate and undergraduate students to live and work in the Antarctic and on icebreakers; and to carry out research on production, nutrient cycling, organic matter diagenesis and ecosystem change. VIMS researchers work primarily in the Ross Sea (McMurdo Station) and the West Antarctic Peninsula (Palmer, Antarctica Long Term Ecological Research site). These programs also emphasize public education and outreach as important components of our work.

### Metagenomics

Studies focus on the genes and genomes of uncultured microbiomes in various ecosystems including sediment, soil, water and host organisms. Metagenomics transforms our views in microbial diversity and promotes to discover novel metabolisms. Next generation sequencing technologies facilitate direct sequencing of microbial DNA. New bioinformatic methods are developed and used to analyze massive numbers of sequences and to determine metabolic potentials of microbial communities. Current research focuses on the microbiomes in sediments, soils, groundwater and oyster.

## Department of Aquatic Health Sciences

- Preparatory Studies
- Typical Course of Study

**Areas of Research:**

- Environmental Chemistry
- Environmental Microbiology
- Toxicology
- Diseases of Marine Animals
- Molecular Genetics
- Environmental Risk Assessment

www.vims.edu/research/departments/eaah

Research within the Department of Aquatic Health Sciences emphasizes understanding the fates of contaminants and pathogens in estuarine and marine environments and their effects on important species as well as humans. A diverse faculty consisting of environmental chemists, toxicologists,

ecotoxicologists, biochemists, microbiologists, molecular geneticists, and pathobiologists collaborate to achieve these goals. A key mission of the department is to identify and detect toxicological, pathobiological and biochemical agents in the Chesapeake Bay and its watershed that affect the health of important aquatic organisms and surrounding human populations. Research questions are pursued at all levels of biological organization from the molecular and cellular to the organismal and population levels. Activities reflect a strong commitment to provide technical support to environmental managers and stakeholders who regulate and protect the waters and natural resources of the Commonwealth regional and federal management agencies, and marine-related industries.

## Preparatory Studies

Successful Aquatic Health Sciences students typically possess a degree in a natural science and should have strong written and oral communication skills. Depending on research interests, advanced course work in biology (e.g., biochemistry, molecular biology, and genetics), chemistry (organic or inorganic), physics, calculus and statistics is expected. Students lacking these courses are strongly advised to complete them before matriculation rather than while in graduate school. Before applying, students should contact prospective mentors in the department to discuss their research interests and experiences, academic background, training, and career objectives.

## Typical Course of Study

The program prepares students for careers as environmental scientists, educators and managers. Since departmental research and educational programs are interdisciplinary, incoming students are expected to have strong backgrounds in biology and chemistry. Following satisfactory completion of the SMS core curriculum, students may pursue courses and research in any of the major program areas (environmental chemistry, toxicology, environmental risk assessment, environmental microbiology or pathobiology). The department offers a number of relevant courses including MSCI 559 - Parasitology, MSCI 562 - Environmental Pollution, MSCI 563 - Environmental Chemistry, MSCI 565 - Principles of Pathobiology, MSCI 568 - Crustacean Health Issues, MSCI 583 - Molecular Genetic Data Analysis, Bioinformatics, MSCI 644 - Aquatic Epidemiology and MSCI 673A - Principles of Molecular Biology (with corequisite MSCI 673B - Metagenomics & Bioinformatics (Prokaryotes) or MSCI 673C - Principles of Molecular & Phylo-genetics (Eukaryotes)). Students are expected to select at least two departmental offerings (with 3 or more credit hours) and typically complement their curriculum with additional courses offered by this and other departments. Students in the department are also expected to enroll in MSCI 515B - Aquatic Health Sciences Seminar each fall and spring semester.

## Areas of Research

### Environmental Chemistry

Departmental research includes elucidating sources, transport, fate, bioavailability and impacts of synthetic and natural contaminants in coastal watersheds. Recent efforts have focused on characterizing the behavior of antifoulants and microplastics in marine and estuarine systems, investigating links between anthropogenic nutrient pollution and environmental health, identifying the sources of emerging contaminants, isolating and characterizing novel algal toxins, and applying geographic information systems (GIS) for modeling spatial distributions of environmental data. AHS faculty, staff, and students collaborate with international researchers, federal and state agencies (e.g., EPA, NOAA, DOE, VA Dept. of Environmental Quality, VA Dept. of Health and VA Marine Resources Commission), as well as private industry, allowing our research to have real-world applications in environmental and public health. Recent student research has examined the binding of pesticides to natural organic matter and subsequent impact on bioavailability and toxicity; bioremediation of tributyltin-contaminated sediment in a created wetland; factors influencing the degradation rate of crop protectants in natural waters; the development of rapid and deployable immunology-based contaminant detection systems; the fate of brominated flame retardants in birds of prey and the fate of biosolid constituents in ecosystems; and the

utility of stable isotope chemistry in determining the source of nutrients, natural or anthropogenic, driving algal toxin production and growth of harmful algal blooms.

### Environmental Microbiology

This program focuses on studies of pathogenic microorganisms in environmental waters. A particular strength is multidisciplinary research on microorganisms that pose a significant threat to human and aquatic animal health, the aquaculture industry, commercial fisheries, tourism and recreational water use. Research includes studies aimed at understanding environmental influences on pathogenic microbes, genetic characterization and evolution of strains, and development and validation of new methods for detection of pathogens.

### Toxicology

Effects of toxic chemicals are measured from organismal to ecosystem levels. Research focuses on examining: 1) uptake and elimination of toxicants by individual organisms, 2) the impact of toxicants on vital processes (mortality, growth, reproduction), and 3) mechanisms of internal distribution, biotransformation, and clearance of xenobiotic and natural products. Organismal responses are being evaluated as a basis for predicting population effects at sublethal concentrations.

### Diseases of Marine Animals

Members of the department have significant expertise in this field ranging from virology, protistology and parasitology, to disease ecology and the evolutionary consequences of disease. Research in this field 1) focuses on infectious and noninfectious diseases of fish and shellfish, 2) determines the mechanism(s) by which pathogens cause disease in the host organisms, 3) examines pathological consequences of exposures of estuarine animals to contaminants, 4) studies etiology and epidemiology of pathogens in estuarine and marine organisms, 5) investigates host defense mechanisms in order to develop diagnostics, therapeutics and vaccines for use in aquaculture, and 6) seeks to understand the impact of toxic materials on disease processes. The pathobiology group uses modern histological, microbiological, immunological, and molecular techniques to study diseases in shellfish and fish. The department has developed a curriculum to train students in modern laboratory and field techniques to study diseases in marine organisms.

### Molecular Genetics

Studies focus on genomic analyses of marine and estuarine animals and pathogenic organisms. Environmental water quality studies involve molecular detection, identification and examination of the effects of environmental parameters on harmful algal bloom (HAB) organisms and human pathogens. Phylogenetic, population genetic, and genomic research targets shellfish, as well as parasites and aquatic pathogens.

### Environmental Risk Assessment

Risk assessment tools are applied to evaluate the risk associated with exposure to hazardous chemicals, pathogens, bacterial agents, both individually and collectively in complex mixtures. The goal is to provide a conceptual framework that will improve environmental management by allowing resource agencies to focus their limited resources on those issues of greatest importance.

## Department of Fisheries Science


- Preparatory Studies
- Typical Course of Study

**Areas of Research Continued:**

- Fisheries Economics

**Areas of Research:**

- Anadromous Fishes
- Aquaculture Genetics & Breeding Technology
- Molluscan Ecology
- Invasive Species Biology
- Crustacean Ecology
- Fish Ecology
- Fisheries Ecosystem Modeling & Assessment
- Fisheries Genetics
- Marine Conservation Biology
- Marine Finfish Dynamics
- Marine Population Dynamics
- Marine Resource Policy & Fisheries Mgmt
- Stock Assessment Methodology
- Systematics & Taxonomy

www.vims.edu/research/departments/fisheries

Research within the Department of Fisheries Science is focused on understanding the population dynamics and biology of fish, crustacean, and molluscan species of commercial, recreational, ecological, and evolutionary significance. Also included within the research framework of the department is the Aquaculture Genetics and Breeding Technology Center. Collaborative research and teaching efforts are common among department faculty. In addition to furthering knowledge through peer-reviewed publications, members of the department advise local, regional and national resource management agencies and involve students directly in fisheries management. The department also maintains an internationally recognized collection of alcohol-preserved and skeletal specimens of fishes that are available for student research.

## Preparatory Studies

Students interested in graduate study in Fisheries Science should have substantial undergraduate coursework in biology including: physiology, biochemistry, comparative morphology or developmental biology, genetics, ecology and related topics, and evolutionary biology. College physics, chemistry (through organic) and math through calculus are required. Courses in statistics, marine biology and fishery biology may be helpful but are not prerequisites.

## Typical Course of Study

In addition to the core courses required of all SMS graduate students, Fisheries students are required to take MSCI 501F - Fundamentals of Marine Fisheries Science as one of their three or four fundamentals courses. Fisheries students are required to take an additional quantitative course, chosen from the following menu: MSCI 583 - Molecular Genetic Data Analysis, Bioinformatics, MSCI 667 - Experimental and Quantitative Ecology, MSCI 669 - Linear and Generalized Linear Models in Ecology, MSCI 670 - Stock Assessment Methods, or MSCI 671 - Fisheries Population Dynamics. Fisheries students are required to enroll in MSCI 515C - Fisheries Science Seminar each spring semester. Other upper-level courses offered by the Fisheries faculty include MSCI 555 - Marine Resource Economics, MSCI 561 - Statistical & Graphical Analyses in R, MSCI 658 - Larval Ecology, MSCI 663 - Deep-Sea Biology, MSCI 664 - Marine Conservation Biology, MSCI 666 - Ichthyology, MSCI 668 - Malacology, MSCI 672 - Ecology of Fishes and MSCI 698 - Special Topics in Marine Science.

## Areas of Research

### Anadromous Fishes Program

Research and monitoring of the abundance, reproductive ecology, life history and exploitation of highly migratory species, such as striped bass, Atlantic sturgeon, river herrings and American shad, that spawn in fresh water. Studies include monitoring commercial and recreational landings, monitoring stock status with fishery-independent surveys, developing novel approaches to stock assessment, conducting surveys

of juvenile abundance, mark/recapture and telemetry methods for estimation of fishing rates and description of migratory behavior.

### Aquaculture Genetics and Breeding Technology Center
Research includes development of brood stocks in shellfish species of interest to Virginia and the region, including selective breeding (especially for disease resistance), chromosome set manipulation, and evaluation of non-native species.

### Molluscan Ecology
Studies focus on ecology and stock assessment of estuarine and continental shelf molluscs. Broad program interests include ecology and behavior of molluscan larvae, life history and population dynamics, restoration culture for commercial purposes, and molluscs as indicators of climate and environmental change.

### Invasive Species Biology
Research focuses on history and pathways of invasions, the characteristics of invasive species ecosystem impacts, and mechanisms of control, national and international policy relating to introductions, and evaluation and implementation of intentional introductions for ecological and economic purposes.

### Crustacean Ecology
Investigations address the ecology, population dynamics, and conservation of the blue crab in Chesapeake Bay and spiny lobster in the Caribbean.

### Fish Ecology
This program focuses on the behavior, habitat and ecological relationships of fishes. Our work is structured around a series of broad questions. Where do animals live, and in what habitats? How much territory do they require? What are their movements and migrations? How will they redistribute in the future? At what scales should we manage them? Work in the program occurs in coastal and open ocean environments, focusing on both teleost and elasmobranch fishes.

### Fisheries Economics
This program investigates decision making, markets, and management of commercial and recreational fisheries. Emphasis is placed on the development and application of quantitative models which test economic hypotheses. Research interests include bycatch and joint production, fleet structure and dynamics, and practical ecosystem-based management.

### Fisheries Ecosystem Modeling and Assessment Program
Areas of interest in this program include monitoring of the abundance, predator-prey, and competitive interactions among fish populations within Chesapeake Bay. Primary objectives of the program are the development of multispecies stock assessments for the purpose of understanding the joint impact of harvesting and biological interactions on these populations. Information derived from these assessments is designed to yield advice for ecosystem-based approaches to fisheries management.

### Fisheries Genetics
This program examines the application of molecular genetic techniques to address problems in fisheries science. Studies focus on analysis of stock structure, use of molecular characters to identify early life history stages of marine organisms, and the evaluation of taxonomic and biogeographic hypotheses with molecular genetic information.

### Marine Conservation Biology

Areas of interest include the ecology and conservation of the blue crab, diamondback terrapin, sea turtles (loggerhead and Kemp's Ridley), Caribbean spiny lobster, queen conch, eastern oyster, and other marine bivalves. Emphasis is placed on metapopulation and source-sink dynamics, marine reserves and dispersal corridors, habitat fragmentation, degradation and loss effects on marine invertebrates, recruitment processes, and predator-prey interactions.

### Marine Finfish Dynamics

Investigations focus on the recruitment dynamics of finfish in coastal ecosystems based on data from long-term bottom-trawl and beach seine surveys in Chesapeake Bay. A primary goal of these studies is to calculate recruitment indices to gauge the strength of the current year class and permit informed management of coastal fisheries. Another goal is to integrate observations from the surveys with field and laboratory research to understand large-scale patterns in the distribution and habitat use of coastal fishes. Such research may include individual-based behaviors as evidenced by acoustic tagging studies or physiological responses to habitat change.

### Marine Population Dynamics

This program applies meta-population modeling, ecosystem modeling, species distribution modeling, statistical analysis of fisheries catch-effort data and coastal oceanography to understand the population dynamics, exploitation status and management implications of marine populations. Particular areas of focus are how larval dispersal and adult movement impact spatial management (e.g., MPAs) of marine species, community structure and global change resilience. Research includes work in both coastal and offshore environments, and has focused on a number of different taxonomic groups, including coastal fishes, tunas, marine mammals, sea turtles and coral reefs.

### Marine Resource Policy and Fisheries Management

Research is performed to support determination of socially optimal rates of exploitation and optimum allocation of marine resources among competing user groups. Studies emphasize assessment and estimation of net social benefits to society and the economic impacts of proposed management and regulatory options. Additional research focuses on numerous international aspects of marine resource management, including, but not limited to, reducing the capture of sea turtles and other undesirable outputs, enhancing technical and economic efficiency of fishing gear, designing capacity reduction programs, and promoting ecosystem-based management.

### Stock Assessment Methodology

This program involves the systematic evaluation of stock assessment procedures and the development of new mathematical models and statistical methods for studying populations and their responses to exploitation. Tagging, survey, and landings data are used to estimate population size, mortality rates, components of mortality, yield, spawning potential, and effects of changes in fishery regulations. Applications include invertebrates and vertebrates in temperate and tropical sport and commercial fisheries.

### Systematics and Taxonomy

Taxonomically diverse studies focus on the taxonomy, morphology, phylogenetic systematics, zoogeography and evolutionary biology of various vertebrate and invertebrate groups. The program promotes a total evidence approach to phylogenetic research, including molecular techniques and morphological studies of larval, juvenile and adult forms.

## Department of Physical Sciences

www.vims.edu/research/departments/physical

The objectives of the Department of Physical Sciences are to generate, communicate and apply knowledge concerning the physical, chemical and geological processes that operate in estuaries and the coastal ocean. The physical oceanography group studies and models the properties and movement of water and dissolved and suspended material in estuarine, coastal and continental shelf environments. Geological oceanography includes the study of the processes of sediment erosion, transport and accumulation as well as the resulting stratigraphy. Marine chemistry emphasizes the study of marine biogeochemical processes, and environmental fate and transport of natural and anthropogenic substances. Interdisciplinary studies are strongly emphasized in the Department of Physical Science.

## Preparatory Studies

In all aspects of the Department of Physical Sciences' education and research programs, there is a heavy reliance on quantitative skills. Our incoming students are expected to have a strong background in one or more areas of physical sciences and mathematics. Undergraduate majors that provide preparation for graduate study in Physical Sciences include physics, applied mathematics, engineering, chemistry and geology. Students interested in pursuing graduate work in Physical Sciences are encouraged to have introductory physics and calculus through ordinary differential equations in their backgrounds.

## Typical Course of Study

Students in the Department of Physical Sciences specialize in Chemical, Geological or Physical Oceanography by following one of the tracks described below. In addition to the core courses required of all SMS graduate students, Physical Sciences students are required to take one advanced marine science course (e.g., any MSCI course over the 550 level with 3 or more credits) that is appropriate to the student's speciality and approved by the student's advisor. Students are also required to enroll in MSCI 515D - Physical Sciences Seminar each fall and spring semester.

Graduate students in chemical oceanography/marine geochemistry may specialize in any of the various aspects of marine and environmental chemistry (e.g., organic, inorganic, analytical, etc.). Specialized course work in other aspects of marine and environmental chemistry can be selected based on recommendations from the student's advisory committee.

Students interested in geological oceanography may pursue tracks emphasizing sedimentary environments and stratigraphy, sediment geochemistry, or physical transport/morphodynamic processes. Courses include marine sedimentation, coastal morphodynamics, sediment transport, multivariate and time-series analysis, and isotope geochronology. In addition, depending on a student's particular emphasis, geological students may be required to take advanced courses in physical, chemical or biological oceanography.

For students majoring in physical oceanography, additional advanced courses address estuarine hydrodynamics and water quality, provide an in-depth focus on estuarine physics and its influence on biogeochemical processes, boundary layer processes, various topics in coastal ocean dynamics, and the application of three-dimensional numerical modeling to estuarine and coastal issues.

## Areas of Research

### Chemical Oceanography / Marine Geochemistry

Faculty in the area of chemistry are engaged in a range of research projects across groundwater, riverine, estuarine, continental margin, and open ocean environments. These studies focus on understanding the cycling of organic and inorganic species from both natural and anthropogenic sources. Individual faculty and students in this program are highly interdisciplinary and are involved in collaborations with other programs at VIMS as well as national and international colleagues. Examples of current and on-going projects within the Chemical Oceanography/Geochemistry group include: cycling and diagenesis of dissolved and particulate organic matter in estuaries and open ocean settings; carbon and nitrogen transport and cycling in rivers, estuaries, and the coastal ocean; chemical flux and contaminant transport; use of natural and anthropogenic substances as tracers of ecological processes; and the chemical composition and biological availability of dissolved organic nitrogen in diverse systems from the open ocean to wastewater treatment plants.

### Geological Oceanography

Encompasses local and international research on a variety of disciplinary and interdisciplinary topics. Research sites span the full range of marine/nearshore environments from coastal plain and river floodplains, through estuaries and across the margin to the base of the continental rise. Although much of our effort addresses questions in Chesapeake Bay and surrounding areas, federal funding supports research in many other areas in the U.S. and around the world (including New Zealand, China, and Taiwan) that generates knowledge about geological phenomena in the coastal ocean. Some of the major focal areas include: sediment transport and boundary layer processes; sediment flux and fate; seabed dynamics; shoreline erosion/sand resource issues; and Quaternary stratigraphic development. Interdisciplinary research efforts involve faculty from the departments of Biological Sciences and Aquatic Health Sciences, as well as colleagues from other institutions worldwide.

### Physical Oceanography

Focuses on water motion in estuaries and on the continental shelf along with the associated transport of buoyancy, suspended particles, nutrients and pollutants. Physical Oceanography at VIMS is extremely interdisciplinary, with faculty who straddle fluid physics, material transport and water quality, and who have ongoing collaborations with chemists and geologists within our department, biologists and resource managers elsewhere at VIMS, and with scientists from various disciplines throughout the country and around the world. We have recent and/or ongoing field projects in the Chesapeake Bay and its tributaries as well as on the shelves of the east and west coasts of the U.S. and in polar regions, and we are applying three-dimensional numerical models to study circulation and associated dissolved and particulate transport in estuarine and shelf environments. Cooperative research projects are underway with scientists from countries including Korea, The Netherlands, Taiwan, and the U.K. Some of the major focal areas of scientists in our group include: wind- and buoyancy driven circulation on the inner shelf; bottom boundary layer processes; the dynamics of estuarine fronts; three-dimensional modeling of estuarine sediment transport and water quality; the association of characteristic density- and tidally-driven estuarine circulation patterns with the fate and transport of pollutants; wind wave evolution in estuaries and on shelves; cross-shelf transport; shelf-break frontal processes and shelf-basin interactions; and the physics governing sediment transport on shelves, in estuaries, and in the surf zone.

## SMS: Degree Programs

- Master of Science
  - Marine Science, MS
  - MS Bypass Option
- Doctor of Philosophy – Marine Science, PhD
- Undergraduate Marine Science Program

## Master of Science

## Marine Science, MS

Requirements for the Master of Science degree are listed below. In addition to completing degree requirements, a student must adhere to a prescribed timeline and document completion of major milestones in the degree program. For more information, refer to degree requirements and policies.

| Milestone | No. of Months for Completion |
|---|---|
| Major Professor | 8 |
| Committee/Research Topic | 9 |
| Pre-Qualifying Interview | 12 |
| Qualifying Exam/Prospectus Defense | 18 |
| Admission to Candidacy | 24 |
| Seminar Presentation/Thesis Defense | 1-3 months prior to completion of degree requirements |
| Completion of Degree Requirements | 36 |

1. **Major Professor** - The student selects a School of Marine Science faculty member as a major professor.
2. **Advisory Committee** - The advisory committee, chosen by the student in consultation with the advisor, consists of at least four members and must be approved by the Associate Dean of Academic Studies before the comprehensive and qualifying exams are scheduled.
3. **Pre-Qualifying Interview** - The student is expected to schedule a meeting early in the program to discuss academic preparation and research ideas with the committee.
4. **Qualifying Exam and Prospectus Defense** - The qualifying examination must be passed and prospectus must be accepted by the student's committee.
5. **Required Courses** - The SMS core and any departmental course requirements must be completed.
6. **Admission to Candidacy** - A student may be admitted to candidacy when he/she has completed the requirements listed above and has achieved a grade point average of B (3.0) or better.
7. **Residency and Enrollment Requirements** - Two consecutive semesters, excluding summer sessions, must be spent as a full-time resident student in good academic standing.
8. **Credit Requirements** - The degree requires at least 32 credit hours of advanced work.
9. **Seminar and Defense** - The student must present a seminar and successfully defend a thesis.
10. **Completion of Degree Requirements** - The requirements for the degree, including submission of the approved dissertation must be completed within three years of matriculation.

## M. S. Bypass Option

A student originally accepted to the M.S. program who clearly demonstrates early potential to successfully conduct Ph.D. level research may petition to bypass the M.S. degree program and proceed directly toward the doctorate. Students interested in the bypass option should file a Notification of Intent to Bypass M.S. Degree form as early as possible and in all cases prior to taking a comprehensive examination at the Ph.D. level, which must be passed by no later than the end of the second calendar year following matriculation. A Master's student who plans to petition to bypass the Master's must constitute

an examination committee in accordance with the requirements for a Ph.D. program advisory committee prior to the comprehensive exam. Following the successful completion of the comprehensive exam, and by the start of the third calendar year at the latest, the student may submit an Application to Bypass the M.S. Degree to the Academic Status and Degrees Committee. The application package will include:

1. An approved Notification of Intent to Bypass M.S. Degree form;
2. A CV and 1-2 page statement by the student describing the student's achievements and demonstrated potential to conduct independent research;
3. A 1-2 page statement by the student's advisor describing the student's achievements and demonstrated potential to conduct independent research;
4. A recommendation by the advisory committee that the student be allowed to bypass the master's degree.

The VIMS Registrar will provide evidence that the student is in good academic standing, has completed the SMS core course requirements for the M.S. degree and successfully completed the comprehensive exam. Evidence of scholarly potential in the form of independent research, professional presentations, submitted or accepted manuscripts and research proposals will strengthen a student's petition for the bypass. The Academic Status and Degrees Committee will recommend to the Associate Dean of Academic Studies whether or not permission to bypass should be granted. A bypass also represents a change in funding obligations for most students and, for that reason, must be approved by the student's department chair. Appeals of an adverse decision of the Academic Status and Degrees Committee or department chair may be made to the Associate Dean of Academic Studies. In order to apply the doctoral program milestones equitably, the Academic Status and Degrees Committee will determine an "effective completion date" for the doctoral program, which normally will be designated as 72 months from the date of matriculation.

## Doctor of Philosophy

## Marine Science, PhD

Requirements for the Doctor of Philosophy degree are listed below. In addition to completing degree requirements, a student must adhere to a prescribed timeline and document completion of major degree program milestones. For more information, refer to degree requirements and policies.

| Milestone | No. of Months for Completion |
|---|---|
| Major Professor | 8 |
| Committee/Research Topic | 9 |
| Pre-Qualifying Interview | 18 |
| Comprehensive Exam | 21 |
| Qualifying Exam/Prospectus Defense | 30 |
| Admission to Candidacy | 34 |
| Seminar Presentation/Dissertation Defense | 1-3 months prior to completion of degree requirements |
| Completion of Degree Requirements | see below |

1. **Major Professor** - The student selects a School of Marine Science faculty member as a major professor.

2. **Advisory Committee** - The advisory committee, chosen by the student in consultation with the advisor, consists of at least five members and must be approved by the Associate Dean of Academic Studies before the comprehensive and qualifying exams are scheduled.
3. **Pre-Qualifying Interview** - The student is expected to schedule a meeting early in the program to discuss academic preparation and research ideas with the committee.
4. **Comprehensive Exam** - A written exam is administered by the student's advisory committee and must be passed before the qualifying exam.
5. **Qualifying Exam and Prospectus Defense** - The qualifying examination must be passed and prospectus must be accepted by the student's committee.
6. **Required Courses** - The SMS core and any departmental course requirements must be completed.
7. **Admission to Candidacy** - A student may be admitted to candidacy when he/she has completed the requirements listed above and has achieved a grade point average of B (3.0) or better.
8. **Residency and Enrollment Requirements** - Two consecutive semesters, excluding summer sessions, must be spent as a full-time resident student in good academic standing. A minimum of three years of graduate study beyond the baccalaureate is required by the degree completion date.
9. **Credit Requirements** - The degree requires at least 42 credit hours of advanced work.
10. **Seminar and Defense** - The student must present a seminar and successfully defend a dissertation.
11. **Completion of Degree Requirements** - The requirements for the degree, including submission of the approved dissertation must be completed within faculty-approved time lines.
    - 4 years for a student entering with a M.S. from the School of Marine Science
    - 5 years for a student entering with a M.S. or equivalent degree from another institution
    - 6 years for a student who is approved to bypass the M.S. degree

### SMS: Undergraduate Marine Science

An undergraduate minor in marine science (18 credit hours) is jointly offered and administered by the School of Marine Science and Arts & Sciences (main campus). The minor provides interested students with an interdisciplinary introduction to the marine sciences that supplements the strong education they receive in a disciplinary science major. Courses are offered both at the VIMS Gloucester Point campus and the main campus. The undergraduate minor in marine science addresses the growing national demand for undergraduate education in the earth and environmental sciences in general, and in the marine sciences specifically.

Advanced undergraduates (juniors and seniors) who receive permission of the instructor may also participate in some SMS graduate level courses. For instance, biology, chemistry, and physics majors may enroll in suitable 500-level marine science courses for credit towards the bachelor's degree and to fulfill the requirements of the undergraduate minor in marine science provided certain conditions are met (see College of William & Mary Undergraduate Program Catalog for more details). Undergraduates also may enroll for credit to conduct research projects in marine science. The student is responsible for making the necessary arrangements with an individual School of Marine Science faculty member, and the consent of the chairperson of the student's major department is also required.

## SMS: Course Descriptions

Refer to the Course Descriptions section.

Additional courses are available through an existing agreement with Old Dominion University’s College of Sciences or the Frank Batten College of Engineering and Technology. Students may petition the

School of Marine Science Associate Dean of Academic Studies to request that these and/or other graduate courses taken outside of Marine Science at William & Mary be used to fulfill elective degree program requirements. Please contact the SMS Registrar for information.

## SMS: Degree Requirements

**Summary of Degree Requirements**

- Marine Science, MS
- Marine Science, PhD
- Academic Residency
- Coursework
- Degree Program Milestones
- Graduation

School of Marine Science (SMS) students generally are bound by the requirements stated in the catalog for the academic year stated in their Notification of Admission letter. The student's department and individual advisory committees may prescribe additional requirements for their students. For a summary of degree requirements, use the link above.

## Academic Residency

To fulfill the full-time academic residency requirement of the SMS, students must:

1. Successfully complete the core course requirements;
2. Be a full-time student in academic standing for two consecutive semesters.

## Required Coursework

### SMS Core Curriculum

Successful completion of the SMS core curriculum ensures that students achieve a broad understanding of the essential processes that define oceanic, coastal, and estuarine environments. Students are expected to build upon this foundation by pursuing specialized and advanced courses tailored to the needs of their individual areas of specialization and research.

Relative to this goal, specific objectives of the SMS core course curriculum are to:

- Educate students in the fundamentals of marine science in a way that fosters interdisciplinary and synthetic understanding of oceanic, coastal and estuarine systems;
- Provide students with an appreciation for the integration of marine science and its application to complex environmental problems;
- Ensure that students have the methodological, quantitative, communication and professional skills needed to pursue successful careers in marine science.

Students must pass all required SMS core courses with a grade of B- or better by the end of their second year following matriculation. Students are required to choose courses as follows:

I. Fundamentals Core Courses: MSCI 501A, 501B, 501C (or 521), 501D, 501E, 501F

- An M.S. student must complete three (3) Fundamentals courses.
- A Ph.D. student must complete four (4) Fundamentals courses.

II. Quantitative Core Courses:

- Students in either degree program must choose at least one of the following quantitative courses: MSCI 504 or MSCI 554

III. Interdisciplinary Core Course:

- All SMS graduate students are required to take the following interdisciplinary course: MSCI 503

## Department Required Courses

In addition to the SMS core courses specified above, students take additional courses as required by their department.

**Aquatic Health Science**: MSCI 515B - Aquatic Health Sciences Seminar (every Fall and Spring Semester) and at least two departmental course offerings (with 3 or more credit hours).

**Biological Science**: MSCI 515A - Biological Sciences Seminar (every Spring Semester) and any course in the department over the 550 level with 3 or more credit hours.

**Fisheries Science**: MSCI 515C - Fisheries Science Seminar (every Spring Semester) and one of the following: MSCI 583, MSCI 667, MSCI 669, MSCI 670, or MSCI 671.

**Physical Sciences**: MSCI 515D - Physical Sciences Seminar (every Fall and Spring semester) and any MSCI course over the 550 level with 3 or more credit hours that is appropriate to the student's specialty and approved by the student's advisor.

Note: Students are expected to register for seminar (MSCI 515A-D) as required by their respective departments; however, only two (2) credits will be applicable to the degree.

## Degree Program Milestones

Student progress within the degree programs of the SMS is guided by milestones, which specify how long a student has to complete each degree requirement. In addition to fulfilling course and credit-hour requirements, the student must complete and document the program milestones. Forms for documenting completed milestones are available from the Office of Academic Studies or may be printed from the following URL: http://www.vims.edu/intranet/forms/. The milestones for degree completion in the SMS are described below. For timelines by degree, refer to summaries for the M.S., M.S. Bypass Option, and Ph.D. program.

**Selection of Major Professor:** The major professor, co-advisor (when applicable), and advisory committee direct the student's program. The student must select a VIMS faculty member as a major professor. When appropriate, the student may select a co-advisor who is a VIMS faculty member or a VIMS Research Scientist. Research Scientists must hold a Ph.D. and be approved as a co-advisor by the Academic Council and the Associate Dean of Academic Studies. Should a student's major professor retire or leave VIMS before the student completes the degree, the student is required to select an appropriate on-campus advisor or co-advisor from the VIMS faculty.

**Selection of Committee & Research Topic (M.S.)**: The advisory committee, chosen by the student in consultation with the advisor, consists of at least four members. A majority of the committee members must be from the SMS faculty. The committee must include at least one SMS faculty member who is both outside of the student's research discipline and outside of the student's home department. A fifth committee member with appropriate qualifications from within or outside of the SMS may be included. The committee must be approved by the Associate Dean of Academic Studies before the qualifying exam is scheduled. Note: A Master's student who plans to petition to bypass the Master's must constitute an examination committee in accordance with the requirements for a Ph.D. program advisory committee. This should be done prior to the scheduling of the comprehensive exam.

**Selection of Committee & Research Topic (Ph.D.)**: The advisory committee, chosen by the student in consultation with the advisor, consists of at least five members. A majority of the committee members must be from the SMS faculty. The committee must include at least one SMS faculty member who is both outside of the student's research discipline and outside of the student's home department. At least one committee member with appropriate qualifications must be from outside the College of William & Mary. The committee must be approved by the Associate Dean of Academic Studies before the comprehensive and qualifying exams are scheduled.

**Pre-Qualifying Interview**: Every student is required to have a pre-qualifying interview with the committee prior to the qualifying exam. Master of Science students should have their pre-qualifying interview before the end of their first year (i.e., before the beginning of the second fall semester for students matriculating in Fall). Ph.D. students should have the interview before the end of the second Fall semester.

**Comprehensive Examination (M.S. Bypass and Ph.D.):**
A written comprehensive exam at the Ph.D. level allows a student to demonstrate comprehension and integration of material from the disciplines of marine science that are relevant to the student's area of specialization. The objective of the written comprehensive examination is to ensure that the student has an appropriate general understanding of the field as well as the specific knowledge needed to undertake their research project. Successful completion of a rigorous comprehensive exam signals that a student is ready to pursue advanced training and original scientific research. The comprehensive examination milestone for PhD students is 21 months. The exam must be passed within 6 months, i.e. before 27 months. After the initial exam, Ph.D. students are allowed one exam retake for any sections that were not passed. At a minimum, a student must pass all but one of their exam sections to be allowed to proceed in the Ph.D. program to the qualifying exam. Students who fail more than one section will be given an option to enroll in the M.S. degree program. Master's Bypass candidates are provided one opportunity to take the comprehensive exam. If they pass all but one section, they may apply to bypass to the Ph.D. program. There is no appeal of this policy.

The exam will be created, administered, and graded by the student's advisory committee. For a student pursuing a M.S. bypass, the examination committee must satisfy the requirements for a Ph.D. advisory committee. The student's advisor will notify the Associate Dean of Academic Studies of the outcome of the pass/fail exam and if any remedial action is needed. Following the exam, a copy of the questions, as well as the graded exam with the questions and student responses will be submitted to the Associate Dean of Academic Studies. The questions will be maintained electronically in the Office of Academic Studies. The graded exam will be maintained in the student's file.

**Qualifying Examination and Prospectus Defense**: The qualifying examination and prospectus defense gauge a student's progress early in the research program. The qualifying examination milestone is 18 months for an M.S. student and 30 months for a Ph.D. student. The exam must be completed within 6 or 12 months of the milestone date for M.S. and Ph.D. students, respectively.

The qualifying examination is an oral exam designed to test a student's scientific competence and ability to pursue the research project. The exam consists of two components: (1) questions that address knowledge specific to the proposed research project and (2) questions concerning the general knowledge in the student's field of study. The qualifying examination will be administered by the student's advisory committee and chaired by a moderator who is not a member of the student's advisory committee. The moderator must be identified at least three weeks prior to the examination. It is expected that the committee members will attend in person. Should a committee member need to participate remotely, the advisor should alert the moderator and confirm the availability of adequate means of communications, both at VIMS and at the remote location. Students must file appropriate paperwork for the scheduling

and announcement of the qualifying examination with the Office of Academic Studies. The approval of the Associate Dean of Academic Studies is required in the event that more than one committee member needs to participate remotely. Consistent with SMS procedures, the examination will be advertised and open to all faculty members. The examination allows a student's advisory committee to identify any deficiencies in a student's preparation to successfully conduct and complete the degree program. The minimum elapsed time between successful completion of the qualifying examination and the final defense must be no less than six months for M.S. students and no less than one year for Ph.D. students. SMS policy prohibits audio or video recording of exams, although exceptions may be made for students with documented disabilities.

The prospectus is a formal written presentation of the proposed research. Its purpose is to present the rationale for selection of the hypotheses, objectives and methodology to be used in the research. It must include a problem statement, review of current literature in the area of study, and a detailed plan of study, as well as a summary of preliminary research conducted by the student. The prospectus must also provide a detailed rationale for the proposed work, clearly stated objectives, and testable hypothesis(es) when appropriate, consistent with the problem statement, and a description of research design, field and laboratory studies, methods and data analysis intended to test the hypothesis. The prospectus must be formally approved by the committee via signing the "Prospectus Acceptance Form. Committee members participating remotely can sign it digitally or give the qualifying exam moderator the authority to sign this form.

A student who fails to meet the Qualifying Examination and Prospectus Defense milestone within the timeframe specified will be placed on academic probation. A student on academic probation will have one calendar year to satisfy any outstanding deficiencies. Failure to do so will result in automatic termination of the student's degree program.

**Admission to Candidacy**: A student who has completed the SMS core and departmental requirements, passed the comprehensive exam (Ph.D. only) and qualifying exam, and has an approved prospectus may apply for candidacy. The student must also have achieved a grade point average of B (3.0) or better, averaged over all courses taken for credit at the time of application for admission to candidacy. The student will be admitted to candidacy upon a favorable recommendation of the student's advisory committee and the Academic Status and Degrees Committee, followed by a majority vote of the Academic Council and the approval of the Associate Dean of Academic Studies.

**Credit Requirements (M.S.)**: At least 32 credit hours of advanced work, of which at least nine (9) credit hours have been earned in courses numbered 550 or above with a cumulative grade point average of 3.0 or better, are required for the M.S. degree. In addition, a student must have registered for thesis credit (MSCI 599 - Thesis) for at least one semester. No more than six (6) thesis credits may be counted toward the minimum 32 credits required for the M.S. degree.

**Credit Requirements (Ph.D.)**: At least 42 credit hours of advanced work, of which at least 15 credit hours have been earned in courses numbered 550 or above with a grade point average of 3.0 or better, are required for the Ph.D. degree. In addition, a student must have registered for dissertation credit (MSCI 699 - Dissertation ) for a least one semester. At least nine (9) but no more than 12 dissertation credits may be counted toward the 42 credits required for the Ph.D. degree.

**Seminar Presentation and Defense of Thesis or Dissertation**: The defense of a thesis or dissertation will consist of two parts. All students are required to present a seminar to the marine science faculty, staff and students on their thesis or dissertation research. The seminar will be advertised and open to any interested individuals.

Immediately following the seminar, the student will undergo an oral examination, the defense of his or her thesis or dissertation, by the student's Advisory Committee. The defense will be chaired and administered by a moderator who is not a member of the student's committee, It is expected that committee members will attend in person. Should a committee member need to participate remotely, however, the advisor should alert the moderator and confirm the availability of adequate means of communications, both at VIMS and at the remote location. The approval of the AD-AS is required in the event that more than one committee member participates remotely. Any interested W&M faculty members are invited to attend. SMS policy prohibits audio or video recording of exams and defenses, although exceptions may be made for students with documented disabilities.

At the conclusion of the defense, the student's Advisory Committee will vote on a pass/fail decision, and indicate this on the "Thesis/Dissertation Defense Acceptance Form". Unanimous committee approval is necessary for satisfactory completion of both a student's thesis or dissertation defense and the final version of the thesis or dissertation. The "Thesis or Dissertation Final Acceptance Form" must also be signed by all committee members (preferably at the defense when committee members are present). Once final edits following the defense have been incorporated, the advisor and student will also sign this form. Digital signatures are not accepted on this form. In the event that a committee member is unable to sign the paper copy, they may grant the Associate Dean of Academic Studies authority to sign for them.

**Graduation Milestones**: All requirements for the degree must be completed within the following time lines established by the faculty:

- 36 months - students pursuing a master's degree
- 48 months - students pursuing a Ph.D. who enter the program with an SMS master's degree
- 60 months - students pursuing a Ph.D. who enter the program with an outside master's degree
- 72 months - students pursuing a Ph.D. who bypass completion of a master's degree

**VIMS Employees**: The same degree program milestones and SMS rules and regulations apply unless permission to change degree program milestones has been approved by the Academic Status and Degrees Committee and the Associate Dean of Academic Studies.

## Graduation

### Filing for Graduation

Students filing for graduation must complete an Online Graduation Application in Banner. Instructions are found at:
http://www.wm.edu/offices/registrar/studentsandalumni/graduation/onlinegraduation/index.php.

There is a one-time graduation fee, currently $145.00, payable for the initial filing date. Only first-time filers can use the on-line filing process. If a student is unable to complete the requirements for graduation by the date specified, he/she must notify the SMS Registrar and complete a paper form to re-file for a new graduation date. There is no graduation fee charge for re-filing.

### Submission of Theses and Dissertations

All graduating students are required to submit electronic-only theses or dissertations to the William & Mary Institutional Repository via the ProQuest ETD Administrator website no later than 5:00 p.m. on the deadline date listed on the academic calendar in this catalog. There is no longer a requirement to submit bound print copies of theses and dissertations to the Swem and Hargis libraries. Refer to the SMS Student Handbook for additional guidelines.
(https://www.vims.edu/education/graduate/student_handbook/handbook_milestones/thesis_dissertation/index.php)

## Conferral of Degrees

William & Mary confers degrees in August, January and May of each year. The commencement ceremony is in May. Degree recipients of the previous August and January are recognized and invited to attend the May ceremony. Students who will complete requirements in August rather than May may participate in the spring commencement with permission of the Associate Dean of Academic Studies and the Vice President for Student Affairs.

# Raymond A. Mason School of Business

**Raymond A. Mason School of Business**

William & Mary
101 Ukrop Way
Williamsburg, VA 23185
Voice: 757-221-4100
Fax: 757-221-2937
Website: **http://mason.wm.edu/**

**About**

- Faculty
- History
- Accreditation
- Vision
- Mission Statement
- Values Statement

Programs
Resources
Policies
Courses

## Message from the Dean

Congratulations on your decision to join the community of the Raymond A. Mason School of Business at William & Mary. We know you had other excellent options, and we are delighted that you have chosen us for the next important stage in your educational and personal development.

We are your partners and your advancement in the understanding and practice of business management and leadership is our shared goal. You join a community filled with the best faculty in the nation who actively contribute to the ongoing conversation of business. They are committed to your intellectual, personal, and professional development. We bring business to you to develop the whole person and to help you achieve your aspirations as a leader. Our remarkable executive partners join the efforts of our faculty and program teams to help us lead business schools in having companies and executives working one-on-one with our students and side-by-side with our faculty.

We encourage you to challenge yourself and step outside your comfort zone while you are with us. Expect to be transformed. Our personalized, experience-based approach to business education will enable your rapid progress. Be ethical in all things and aspire to make a sustainable difference in the world.

One aspect of the Raymond A. Mason Business School community should already be obvious: We care about you. You will notice that difference from the moment you engage with us and throughout your time with us. You will become a part of us and we will become a part of you. With the foundation of the history, tradition, and legacy of William & Mary and the relationships you will develop with faculty, business leaders, executives, and your fellow students, you will be connected to a powerful community that will help you make your mark on the world of business. And you will join our accomplished alumni living lives of principled achievement and known for their preparation, their integrity, their intelligence, their willingness to work hard, and their understanding of what really matters in business and in life.

Welcome.

Lawrence B. Pulley
Dean and T.C. and Elizabeth Clarke Professor of Business

# About the Raymond A. Mason School of Business

## Raymond A. Mason: History

The Raymond A. Mason School of Business has deep roots in the history and traditions that have made William & Mary one of the most distinguished liberal arts universities in the nation. Founded in 1693, the university is the second oldest university in the nation-the first was Harvard-and educated many of the nation's Founding Fathers. It ranks consistently among the top 10 public, undergraduate liberal arts university in the United States.

Proud traditions of the university include the founding of Phi Beta Kappa, the National Honor Society and the Honor Code that inspires alumni, students and members of the university community to lead ethical and moral lives.

This same commitment to scholarship, service and ethics underscores the mission and curriculum of the Raymond A. Mason School of Business. The School educates the next generation of business leaders by offering a highly personal learning environment that fosters team-building skills, self-reliance, an entrepreneurial spirit, and ethical character.

In 1919 William & Mary President Julian A.C. Chandler established the Department of Business while expanding the university's sphere of services. The study of business grew in popularity over the 20th Century, with substantial growth after the end of World War II. The university established the Master of Business Administration (MBA) Program in 1966. In 1968, the Department of Business became the School of Business, and in 1971, the university's Board of Visitors approved the addition of the Bachelor of Business Administration (BBA) undergraduate degree. The Master of Accounting degree graduated its first class in 2000.

In November 2005, the School of Business was named the Raymond A. Mason School of Business to honor longtime supporter Raymond A. "Chip" Mason, President and CEO of Legg Mason, Inc., who graduated from William & Mary in 1959 and was instrumental in the creation of the School of Business in 1967-1968.

In July 2009, the Raymond A. Mason School of Business moved to its new home in Alan B. Miller Hall. Alan Miller is Chairman of the Board and CEO of Universal Health Services. He graduated from the university in 1958.

In August 2015, the Raymond A. Mason School of Business launched its On-line MBA program. In September 2015, the school received approval from the state of Virginia to launch a residential Master of Science in Business Analytics in the Fall of 2016.

In August 2018, the Raymond A. Mason School of Business launches the Online Masters in Business Analytics Program.

## Raymond A. Mason: Accreditation

The Raymond A. Mason School of Business is accredited by The Association to Advance Collegiate Schools of Business (AACSB) to award undergraduate and graduate degrees in Business Administration and Accounting. For questions about AACSB accreditation please contact the AACSB International World Headquarters at 777 South Harbour Island Boulevard, Suite 750 Tampa, FL 33602 USA or call (813)-769-6500.

William & Mary is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's, master's, post-master's certificates, doctoral, and first professional

degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call (404) 679-4500 for questions about the accreditation of William & Mary.

### Raymond A. Mason: Vision

The vision of the Raymond A. Mason School of Business at William & Mary is to be a premier and intimate learning community with a world-class reputation as a source of highly qualified and principled managers and leaders.

### Raymond A. Mason: Mission Statement

The mission of the Raymond A. Mason School of Business at William & Mary is to serve the Commonwealth, the nation, and the global community by offering high-quality educational programs at the undergraduate, graduate, and professional levels and by creating and communicating new knowledge.

We fulfill this mission through:

- Building a Faculty whose research, teaching, and service influences students, business leaders, policy makers, and other scholars.
- Engaging Students in innovative educational experiences to nurture creativity, to mentor high ideals, and to accelerate ambitions of leadership so that they will imagine the great business opportunities of the day and seize them.

### Raymond A. Mason: Values Statement

As a global citizen and member of the Mason community, I embrace the following values:

- Respect and appreciation for diversity
- Personal integrity and honesty
- Responsibility for myself and others
- A spirit of generosity
- A life dedicated to inquisitive learning, professional development and leadership

My words, actions, and relationships will demonstrate my commitment to these values within the program and throughout my life.

## Raymond A. Mason School of Business: Faculty

**Dorothea LaChon Abraham** (2004), Associate Professor of Business, B.S. United States Military Academy at West Point; M.B.A., Old Dominion University; Ph.D., University of Georgia.

**Julie Agnew** (2001), Kraemer Term, Professor of Business, B.A., William & Mary; Ph.D., Boston College.

**Brent B. Allred** (1999), Professor of Business, B.S. and M.B.A., Brigham Young University; Ph.D., Pennsylvania State University.

**Vladimir Atanasov** (2005), Owens Term Professor of Business, B.S. and M.A., University of National and World Economy, Sofia, Bulgaria; Ph.D., Pennsylvania State University.

**A. Paul Blossom** (2013), Clinical Associate Professor of Business, B.S., M.S., and Ph.D., Michigan State University.

**Tonya Boone** (1999), Associate Professor of Business, B.S., University of Kansas; M.B.A., William & Mary; Ph.D., University of North Carolina at Chapel Hill.

**John F. Boschen** (1988), Brinkley-Mason Professor of Business, B.S., University of North Carolina at Chapel Hill; M.A., University of Delaware; Ph.D., Brown University.

**James R. Bradley** (2004), Hays T. Watkins Professor of Business, B.M.E.E., General Motors Institute; M.B.A., Dartmouth College; Ph.D., Stanford University.

**Herrington J. Bryce** (1986), Life of Virginia Professor of Business, B.A., Mankato State University; Ph.D., Syracuse University.

**Inga M. Carboni** (2007), Associate Professor of Business, A.B., Bowdoin College; M.A., Tufts University; M.A. and Ph.D., Boston College.

**Kurt A. Carlson** (2017), Associate Dean for Faculty and Academic Affairs and Williams J. Fields Professor of Business, B.Sc. and M.Sc., University of Wisconsin -Madison: M.Sc. and Ph.D., Cornell University.

**Rachel Chung** (2009), Clinical Associate Professor of Business; BS National Taiwan University; MS & PhD University of Pittsburgh.

**Matthew D. Dean** (2018), Clinical Associate Professor of Business, B.S., College of William & Mary; Ph.D., University of Connecticut.

**Jamie Diaz** (2011), Clinical Assistant Professor of Business, B.S., University of Richmond; Ph.D., New York University.
**Ayse Durukan** (2018), Clinical Assistant Professor of Business, B.S., Fatih Univesrity; Ph.D., University of Houston.

**Dawn M. Edmiston** (2014), Clinical Professor of Business, B.S., Rensselaer Polytechnic Institute; M.B.A., Columbia University; D.M., University of Maryland University College.

**Elizabeth P. Foster** (2010), Clinical Associate Professor of Business, B.S., University of Virginia; M.S., Old Dominon University.

**Ram Ganeshan** (2000), D. Hillsdon Ryan Professor of Business, M.M.S., Birla Institute of Technology and Science, Goa, India; M.S., University of North Carolina at Chapel Hill; Ph.D., Pennsylvania State University.

**G. Scott Gibson** (2005), J. Edward Zollinger Professor of Business, B.S. and Ph.D., Boston College.

**Tatia D. Granger** (2017), Clinical Associate Professor of Business, B.A, M.Ed. and Ph.D., University of Virginia.

**H. Katherine Guthrie** (2006), Associate Professor of Business, B.A., University of California-Davis; M.A. and Ph.D., University of Michigan.

**Graham R. Henshaw** (2015), Clinical Lecturer of Business, B.S. and M.S., Virginia Polytechnical Institute and State University.

**Ronald L. Hess,** Jr. (2001), Associate Professor of Business, B.A., James Madison University; M.B.A., William & Mary; Ph.D., Virginia Polytechnic Institute and State University.

**Rex M. Holmlin** (2014), Clinical Lecturer of Business, B.S. and M.B.A., Tulane University; M.S., American University.

**Margot E. Howard** (2015), Assistant Professor of Business, B.B.A., University of Notre Dame; M.Acc., University of Michigan; Ph.D., University of North Carolina at Chapel Hill.

**Tracy Johnson-Hall** (2012), Assistant Professor of Business, B.S.E, Vanderbilt University, M.B.A., The Pennsylvania State University, Ph.D., Clemson University.

**Denise A. Jones** (2000), John S. Quinn. Term Professor of Business, B.S., B.A., Bryant College; M.B.A. and M.S., University of Colorado, Denver; Ph.D., University of Colorado, Boulder.

**Aaron M. Koehl** (2017), Clinical Associate Professor of Business, B.S., Christopher Newport University; M.Eng., University of Virginia; Ph.D., William and Mary.

**Rajiv Kohli** (2005), John N. Dalton Memorial Professor of Business, L.L.B., University of Puna, Ganeshkhind, Pune; M.B.A., Center for Management Research & Development; M.S., Ball State University; Ph.D., University of Maryland.

**Katie Lopresti** (2013); Clinical Assistant Professor; BS, University of Puget Sound; MS & PhD, Purdue University.

**Siyuan Li** (2018), Assistant Professor of Business, B.B.A., Hong Kong University of Science and Technology; Ph.D., University of Georgia.

**Karen D. Locke** (1989), Pat and Margaret Walsh Professor in Leadership and Ethics, B.Sc., University College, London University; Ph.D., Case Western Reserve University.

**David M. Long** (2013), Associate Professor of Business, B.S. Presbyterian College; M.B.A. and Ph.D., University of Florida.

**Michael G. Luchs** (2008), Henry and Phyllis Shook Term Distinguished Associate Professor of Business, B.A. and B.S.E., Tufts University; M.B.A., University of Virginia; M.S. and Ph.D., University of Texas at Austin.

**Hugh Marble, III,** (2015) Clinical Assistant Professor of Business, B.S., University of Rhode Island; M.B.A., Rollins College; Ph.D., University of Florida.

**Christopher McCoy** (2018), Assistant Professor of Business, B.A., University of Florida; B.C.B.A., MAcc and Ph.D., University of Alabama.

**Scott McCoy** (2003), Professor of Business, B.A., Flagler College; M.S., Middle Tennessee State University; Ph.D., University of Pittsburgh.

**John J. Merrick, Jr.,** (2005), Richard S. Reynolds Professor of Business, B.A., La Salle University; M.A. and Ph.D., Brown University.

**Marc B. Moyers** (2018), Clinical Associate Professor of Business, B.S., University of Virginia.

**David H. Murray** (1997), Clinical Professor of Business, B.Sc. and M.B.A., Concordia University; Ph.D., University of Michigan.

**Kenneth Njoroge** (2015), Assistant Professor of Business, B.S., University of Nairobi; M.S., University of Nebraska; Ph.D., Duke University.

**James M. Olver** (1988), Associate Professor of Business, B.A., M.B.A. and Ph.D., University of Virginia.

**Christine Petrovits** (2013), Mansfield Term Associate Professor of Business, B.B.A. and M.B.A., William & Mary; Ph.D., University of North Carolina at Chapel Hill.

**Marc P. Picconi** (2011), Associate Professor of Business, B.S., Stanford University; M.S. and Ph.D., Cornell University.

**Lawrence B. Pulley** (1985), Dean, Raymond A. Mason School of Business and T. C. and Elizabeth Clarke Professor of Business, B.A., William & Mary; Ph.D., University of Virginia.

**Don R. Rahtz** (1982), J.S. Mack Professor of Business, B.A. and M.B.A., Northern Illinois University; Ph.D., Virginia Polytechnic Institute and State University.

**Michael J. Seiler** (2013), K. Dane Brooksher Professor of Business, B.S., University of South Florida; M.B.A., University of North Florida; D.B.A., Cleveland State University.

**Ronald R. Sims** (1986), Floyd Dewey Gottwald, Sr. Professor of Business, B.A., University of Steubenville; M.S.W., University of Maryland; Ph.D., Case Western Reserve University.

**William L. Skimmyhorn** (2018), Assistant Professor of Business, B.S., United States Military Academy; M.A. and M.S., Stanford University; Ph.D. Harvard University.

**Kimberly J. Smith** (1988), Chancellor Professor of Business, B.S., Fairmont State College; M.P.A., West Virginia University; and Ph.D., University of Maryland.

**Rachel M. Stephens** (2016), Clinical Lecturer of Business, B.S. and M.S., St. John's University.

**John S. Strong** (1985), CSX Professor of Business, B.A., Washington and Lee University; M.P.P. and Ph.D., Harvard University.

**K. Scott Swan** (1966), Professor of Business, B.S., Taylor University; M.B.A., University of South Carolina; Ph.D., University of Texas at Austin.

**Lisa R. Szykman** (1999), Associate Professor of Business, B.S., Pennsylvania State University; M.B.A., Villanova University; Ph.D., University of North Carolina at Chapel Hill.

**Monica C. Tremblay** (2017), Associate Professor of Business, B.S., University of Florida; M.S. and Ph.D., University of South Florida.

**Joseph H. Wilck** (2016), Clinical Associate Professor of Business, B.S. and M.S., Virginia Polytechnic Institute and State University; Ph.D., Pennsylvania State University.

**Robert E. Williams** (2012), Clinical Lecturer in Business, B.A., Texas Christian University; M.B.A., University of Pennsylvania.

**Jeanne M. Wilson** (2001), W. Brook George Term Associate Professor of Business, B.S., St. Joseph's College; M.S., Purdue University; Ph.D., Carnegie Mellon University.

**Alexander Woods** (2008), KPMG Term Associate Professor of Business, B.S., Wright State University; M.B.A. Colorado State University; Ph.D., Michigan State University.

**Yu Amy Xia** (2018), Associate Professor of Business, B.E., Huazhong University of Science and Technology; M.E., Shanghai Jiaotong University; M.S., and Ph.D., Washington State University.

**Wei Yang** (2018), Assistant Professor of Business, B.S. Peking University; Ph.D. Carnegie Mellon University; Ph.D. Stanford University.

## Raymond A. Mason: Policies



## Raymond A. Mason: Admissions

### Graduate Admission

Within the limits of its facilities and its obligations as a state university, William & Mary offers the possibility of admission to all qualified students without regard to sex, race, color, age, religion, national origin, sexual orientation, or disability.

For additional admissions information go to http://mason.wm.edu/programs/index.php and select a specific Program.

### Admission to Non-Degree Status

Under special circumstances, individuals who wish to take graduate courses (courses numbered 5000 and above) for audit or credit, but not enter as a degree-seeking student may be permitted to do so on a space-available basis with faculty and Program Assistant Dean permission. Non-degree status is limited to students who have already earned baccalaureate degrees (official transcript required) and is not available for all courses. Non-degree status is permitted for up to 9.0 credit hours of coursework. Non-degree status is not permissible in Online Programs. Students must be admitted to the Online MBA or Online MSBA to register for classes offered through the programs.

After written approval from the instructor and Program Associate Dean, interested students should contact the Program to request an Non-Degree Seeking Student Application. Registration will be processed by the Graduate Registrar. If approved, the individual will pay the current graduate business tuition rate for the course.

Non-degree status and visiting students must receive permission for each class in which they wish to enroll. Non-degree applications must be received no later than one week prior to the first day of classes. Non-degree students are bound by all rules and regulations of the university and its Honor Code.

### Readmission
Students who are in good academic standing with the university but have not been in attendance for one or more semesters must first contact their respective Graduate Program. After Program approval, the Graduate Registrar will readmit the student and issue a time ticket (required for self registration) before they are permitted to register for classes. A domicile application, must also be submitted to the University Registrar upon re-admittance. Please go to the Forms menu at https://www.wm.edu/offices/registrar/studentsandalumni/domicile/index.php for a domicile application form. Any questions about domicile eligibility should be directed to the University Registrar's Office in Blow Memorial Hall.

## Raymond A. Mason: Academic Policies



## Class Attendance
Regular class attendance and participation in class discussions is required. If a student needs to miss class or deadline for any reason, he or she should contact the professor ahead of time. Students are responsible for completing all missed class assignments. Consequences for missed classes are at the discretion of each professor.

Note: If a full-time graduate business student has a job interview during a class, he or she must forward the email to the Raymond A. Mason Graduate Career Management Center prior to the interview in addition to contacting the professor.

## Exams

### Final Examinations
The final examination schedules for core courses in our residential programs are determined by each Program office. Please note that an exam may be held on a day and/or at a time or place different from the regular class time.

Online Programs final exams and final assignments are due on the last day of class.

In the event of an extenuating circumstance, a request to reschedule a final examination, should be arranged with the faculty member or Program Director.

### Exams for Students Requiring Special Accommodations
Students with documented disabilities who need extra time or other special accommodations for taking exams should coordinate those needs through their primary graduate program office. In order to receive an accommodation, a student must receive a letter from the Student Accessibility Services Office to present to their program and instructors to verify the need for special arrangements. All documentation of

disability is considered confidential and will not be released without the student's prior written consent, therefore, every effort will be made to maintain the student's anonymity. Once it is known that a student needs such accommodations, the program will determine the extent of need and make appropriate room reservations or other arrangements for the student without disclosing for whom the arrangements are being made.

## Verification of Enrollment or Degrees

Requests for official transcripts, verification of enrollment, or degrees earned at the university should be addressed to the University Registrar's office at http://www.wm.edu/offices/registrar/studentsandalumni/studentrecords/index.php

The university sends regular enrollment and graduation updates to the National Student Clearinghouse, which is used by many loan agencies to verify enrollment. The university cannot verify enrollment or degrees for students who have submitted a request for confidentiality.

## Transcript Requests

Official transcripts are issued by the University Registrar's Office and bear the University seal and registrar signature. In accordance with the 1988 Virginia Debt Collection Act, Section 2.1-735, transcripts will not be released for students who have outstanding fines or fees, nor are they viewable over the web. A fee is charged for each official transcript. One copy of the unofficial transcript will be provided free of charge per calendar year. Payment may be made by cash, check, or money order when ordering in person.

Transcript ordering is available to our students and alumni. It allows users to order official transcripts via the Web at any time, 24/7. Users can order as many transcripts as they like in one online session using any major credit card. Transcript ordering can be accessed from the National Student Clearinghouse at www.getmytranscript.com (select William & Mary).

Registration is free; users pay only for the transcripts they order. Students and alumni who submit transcript requests receive real-time order updates by email, request to receive instant mobile text alerts, and can track their orders online on the Transcript Ordering Web site.

Orders sent by mail must include payment in the form of a check or money order (U.S. funds). Official transcripts must be requested in writing with the student's original signature. Request forms are available online at http://www.wm.edu/offices/registrar/studentsandalumni/studentrecords/transcripts/offtrans/index.php and may be mailed to: William & Mary, Office of the University Registrar, Attention: TRANSCRIPTS, P.O. Box 8795, Williamsburg, Virginia 23187-8795. Currently enrolled students and former students since 2007 may view their unofficial transcript online via my.wm.edu and Banner Self Service.

If you have questions regarding ordering transcripts, please contact the University Registrar's Office at 757/221-2800 or registrar@wm.edu.

## Intellectual Property Rights of Others

The university does not permit the recording, dissemination, or publication of academic presentations (including handwritten notes) for a commercial purpose without advance authorization of the course instructor.

The posting of lecture notes on commercial websites is prohibited.

## Enrollment Statuses

Students enrolled in a full-time program must stay at full-time status during the Fall and Spring semesters. EMBA students are considered full-time in the Fall, Spring and Summer. Students enrolled in part-time programs may obtain full or part-time status depending upon the number of credits for which they are registered (see "Full-time Status" and "Part-time Status" below for additional information).

### Full Time Status

Full-time graduate registration is defined by the university as registration for nine (9) or more semester hours of graduate credit per semester during the Fall and Spring semesters. Each graduate program has specific degree requirements that may exceed the minimum credit hour of 9 required for full-time status. A full-time degree-seeking student must register for at least nine but not more than 18 credits each semester. (Audits do not count toward the minimum hours required but do count toward the maximum hours allowed). Requests for overloads may be approved by the Program Director. Please see the overload section below for additional overload information.

### Part Time Status

During the Fall and Spring semesters, students are considered to be part-time if registered for less than nine (9) semester hours of graduate credit per semester. Note: Flex students registered for nine (9) or more credit hours will be charged the applicable rate for full-time tuition and fees.

### Overload

A written request to enroll for more than 18 hours must be submitted to the Program Director during the regular registration period, and before the end of the add period. Students must have a grade point average of 3.0 or above to request an overload. Permission to carry more than 18 academic credits is granted only to exceptionally capable students. After written approval has been obtained, the Graduate Registrar will register the student for the course(s). Students already enrolled at full-time status (9 or more hours) may take an overload at no additional cost.

### Enrollment in Undergraduate Courses

Graduate students may take up to a total of four credit hours, for credit or audit, of courses normally offered for undergraduate credit (i.e., language, music lessons, and dance) with approval from the Program Director. The student will not receive graduate credit for the course. Undergraduate courses do not count towards the graduate degree. This section does not apply to students enrolled in an online program.

### Auditing Graduate Business Courses

Mason School of Business graduate students may audit a graduate business course if space is available and with permission from the Instructor and Program Director. Online program classes are not available for audit. Students must submit a Permission to Audit form, during the regular registration period, to the program office, who will forward completed form to the Graduate Registrar to facilitate course registration. Audited courses carry no academic credit. Full-time graduate students may audit one course per regular semester (with the exception of the very first semester enrolled or first year for full-time MBA students) without charge, provided total number of credit hours does not exceed eighteen (18) hours. Grades for courses taken on an audit basis will appear on the student's William & Mary transcript as a grade of "O" for a successful audit or "U" for an unsuccessful audit. Students who stop attending class and fail to withdraw following the 'Withdraw from an Individual Course' policy will receive the grade "U." Students may not audit classes that are required to complete their degree.

### Independent Study Courses

A student may enroll in an independent study course if a faculty member agrees to be the faculty advisor for the project, two additional faculty members agree to be the faculty readers, and the Associate Dean

approves the independent study. An independent study course is not a replacement for a required course. The student should seek out a faculty member who has personal interest or experience in the area relating to the student's independent study proposal. Submitting a proposal is not a guarantee for enrollment in an independent study class. A faculty member is not required to participate in an independent study. All proposals and paperwork for the course should be finalized before the end of the add/drop period. The student may seek additional guidance from the Program Director. At the conclusion of the independent study, the student's final paper will be forwarded to the Associate Dean for final review. Only students with a cumulative grade point average of 3.0 or higher may participate in Independent study courses and exchange programs.

## Summer Courses

Summer courses are offered to Flex MBA students at the Peninsula Center located in Newport News during two summer sessions and are also available to full-time MBA and MAcc students. Attending summer courses does not preclude the full-time MBA student requirement of attending courses full-time in the Fall and Spring semesters of the second year. Course loads could be reduced in either or both Fall and Spring to incorporate those hours taken during the summer session (with a minimum requirement of nine credit hours per semester to be considered full-time).

First year full-time MBA students are strongly encouraged to pursue a summer internship experience prior to the second year. If a student will be located in the area, and/or does not have a summer internship, permission to take summer courses may be granted on a space available basis.

Students enrolled in the Online and EMBA programs take courses throughout the academic year, to include the summer semester.

## Enrollment in other William & Mary Graduate Programs

With permission from the Program Director and respective faculties, an MBA or MAcc student may register for and apply up to six (6) credit hours of graduate elective course work earned at William & Mary outside of the Mason School of Business towards the Full-time MBA, Flex MBA, or MAcc degree. In order to exercise this option, the student must complete a Request to Take Non Program/Business form prior to registration. Additional documentation, such as course description and/or syllabus is required. Once approved, the Graduate Registrar will facilitate course registration.

The Online MBA and Online MSBA are designed as an integrated, cohort-based program. Students must register for all classes in the curriculum to complete the program.

The MSBA is designed as an integrated, cohort-based program. Students must register for all classes in the curriculum to complete the program.

Course work taken at the Marshall-Wythe Law School and counted toward Mason School of Business elective requirements must be approved by the Program Director, instructor, and Law School Associate Dean prior to enrollment in the course. Grades for Marshall-Wythe Law School courses will be transferred in as a Pass ("P") provided a grade of "C-" or above is received or as a Fail ("F") if a grade of "D+" or lower received. Passing credits will apply towards credit hours needed for graduation, but not towards the cumulative GPA. Any other grade earned outside of the Mason School of Business will be applied towards the student's degree and used in calculating the cumulative GPA. A grade of "D+" or lower will become a grade of "F" as Mason School of Business graduate programs do not recognize the "D" grade as passing. A grade of "F" automatically qualifies a student for academic dismissal from the program. Please refer to the Academic Dismissal policy for the complete policy.

## Enrollment within the Raymond A. Mason School of Business

Graduate students may register for courses outside their program with permission from the faculty member and Program Directors of both programs. In order to exercise this option, the student must complete a Request to Take Non Program/Business Course form prior to registration. This form is not needed for registration in elective courses between the full-time MBA and Flex MBA programs. Permission to register is granted upon availability and if the prerequisites have been met. Once approved, the Graduate Registrar will register the student for the requested course.

## Registration and Add/Drop

The Graduate Registrar oversees all student semester course registration. Each student is responsible for their own progress towards degree requirements, however, the Graduate Registrar and Program Directors will also monitor student progress towards degree completion.

Adding or dropping a class may impact your ability to continue in your program or graduate on time. Advisement from program is highly recommended.

## Registration Process for 1st year full-time MBA Students

The first year MBA courses are concentrated and sequenced in an integrated lock-step program. All first year students will be registered by the Graduate Registrar. Students must verify course registrations for accuracy each semester. To do this, students should go to the student menu in Banner Self Service under myWM, select "Registration" and then view their "Student Detail Schedule." Students are responsible for notifying the Graduate Registrar immediately of any errors requiring correction.

All students are assigned to a 5 to 6 member learning team, chosen to maximize diversity and breadth of experience. Students will work with the same team in the first year of the MBA Program. MBA courses meet in two sections to increase the opportunity to interact with more classmates. Sections are re-assigned after each session.

## Registration Process for 2nd year full-Time MBA Students

Each second year student will register on-line using the Banner Self Service system through myWM for Fall and Spring semester classes. (Pre-registration will occur during the prior semester.) Course information is available online at http://www.wm.edu/offices/registrar/coursecatalschedules/courseschedules/index.php.

## Registration Process for Flex MBA Students

The Flex MBA program will register entering Flex students for their first semester courses. In subsequent semesters, students will register online using the Banner Self Service system through myWM. (Pre-registration will occur during the prior semester). Course information is available online at http://www.wm.edu/offices/registrar/coursecatalschedules/index.php. Students should seek academic advising from Program staff as needed.

## Registration Process for EMBA Students

The EMBA Program will provide the Graduate Registrar with a list of courses for each student each semester and the Graduate Registrar will register EMBA students. Students must verify course registrations for accuracy each semester. To do this, students should go to the student menu in Banner Self Service under myWM, select "Registration" and then view the "Student Detail Schedule" to see the courses. Students are responsible for notifying the Graduate Registrar immediately of any errors that require correction.

## Registration Process for Online Program Students

All Online Program students will register for courses online using the Banner Self Service system through myWM. (Pre-registration will occur during the prior semester). Course information is available online.

### Registration Process for MAcc Students

The Graduate Registrar will register incoming MAcc students for summer Boot camp classes. During the Spring semester, students will register online using the Banner Self Service system through myWM. Course information is available online at http://www.wm.edu/offices/registrar/coursecatalschedules/index.php.

### Registration Process of MSBA Students

The Graduate Registrar will register MSBA students for all courses. Students must verify course registrations for accuracy each semester. To do this, students should go to the student menu in Banner Self Service under myWM, select "Registration" and then view the "Student Detail Schedule" to see the courses. Students are responsible for notifying the Graduate Registrar immediately of any errors that require correction.

### Registration Verification

Students should verify course registrations for accuracy regardless of whether the registration request was completed through the Graduate Registrar or Banner Self Service.To do this, students can go to http://my.wm.edu; select the student menu in Banner Self Service under myWM, select "Registration" and then view "Student Detail Schedule" to see courses. Students are responsible for notifying the Graduate Registrar immediately of any errors that require correction.

### Full-Time MBA Add/Drop

Full-time MBA students wishing to add or drop a course may do so in Banner Self Service through a 10-calendar-day add/drop period. The add/drop period begins on the first day of classes for the Fall and Spring semesters. Courses dropped through the end of the add/drop period are not displayed on the student's transcript. Full-time MBA students registered for Flex courses, must abide by the Full-time MBA 10-calendar day add/drop period for the Flex courses. Students may drop courses that run for 8 weeks or less within 5-calendar days from the start of class by contacting the Program Office..

First year full-time MBA courses are concentrated and sequenced in an integrated lock-step program; therefore, no individual course can be added or dropped during the semester.

### Flex Add/Drop

Flex students wishing to add or drop a course may do so in Banner Self Service through the add/drop period. The add/drop period begins on the first day of classes for all semesters. During the fall and spring semesters the add/drop period will run for 10 calendar days. During the summer sessions the add/drop period will run for 5 calendar days. During the fall and spring semesters, after the 10-day add/drop period, an extended drop period for Flex students runs through the end of the third week of class. Courses dropped through the end of the extended drop period are not displayed on the student's transcript. The withdrawal period for Flex MBA students begins after the end of the drop period. A Flex student who withdraws from a course after the drop period, but remains registered for other academic work will not be eligible for a refund. Students may drop courses that run for 8 weeks or less within 5-calendar days from the start of class by contacting the Program Office.

### EMBA Add/Drop

The EMBA Program courses are concentrated and sequenced in an integrated lock-step program; therefore, no individual course can be added or dropped during the semester.

### Online Programs Add/Drop

The Online Programs add/drop period ends at 11:59pm on the Sunday after the first day of class. Online program students wishing to add or drop a Session A course may do so in Banner Self Service through the add/drop period for Session A. Students who wish to add or drop a Session B course may do so in Banner Self Service prior to the add/drop deadline for Session A. After the Session A add/drop deadline, students who wish to add or drop a course in Session B should contact the program department for the appropriate form prior to the add/drop deadline for Session B. Courses dropped through the end of the add/drop period are not displayed on the student's transcript.

### MAcc Add/Drop

MAcc students wishing to add or drop a course may do so in Banner Self Service through a 10-Calendar-Day add/drop period. The add/drop period begins on the first day of classes for the Fall and Spring semesters. Courses dropped through the end of the add/drop period are not displayed on the student's transcript. MAcc students registered for Flex courses, must abide by the MAcc 10-calendar day add/drop period for the Flex courses. Students may drop courses that start mid-semester within 5-calendar days from the start of class by contacting the program office.

### MSBA Add/Drop

The MSBA Program courses are concentrated and sequenced in an integrated lock-step program; therefore, no individual course can be added or dropped during the semester.

## Withdrawals

### Withdrawal from Individual Courses

After the add/drop period, students may withdraw with a grade of 'W' from a course before 60% of the course is completed. Students who withdraw from one or more courses must follow procedures established by the degree program. Petitions for late withdrawal will be approved only for extraordinary reasons. Please see your Program Director for more information.

Graduate students may not withdraw from an individual course more than two (2) times. Should the student withdraw from an individual course a third time, they will be ineligible to take the course again. If the course the student is withdrawing from is a core course, the student will be automatically dismissed from the program upon the third withdrawal.

Online Program classes are completed in 7.5 weeks. The withdrawal deadline is the fifth Wednesday after the class start. Specific dates are available on the Online programs academic calendar.

The EMBA Program courses are concentrated and sequenced in an integrated lock-step program; therefore, no individual course can be added or dropped during the semester.

The MSBA Program courses are concentrated and sequenced in an integrated lock-step program; therefore, no individual course can be added or dropped during the semester.

### Medical Withdrawal

If considering a medical withdrawal, students should contact the Program Director. Students must petition and receive approval for a medical withdrawal before it is official. Under extraordinary circumstances, a retroactive medical withdrawal may be considered but no financial refunds will be granted. All petitions must be submitted to the Dean of Students Office for review by the Medical Review Committee (MRC). Required elements of a petition are a completed letter (explaining what occurred during the semester to interfere with academic and/or personal success) and a detailed letter from a medical professional

appropriate to the case. The letter should indicate diagnosis, treatment and prognosis. For full details, please visit the Dean of Students website at: http://www.wm.edu/offices/deanofstudents/topicforms/index.php. Readmission following a medical withdrawal is not automatic and involves a clearance procedure which includes submission by the student of all necessary documentation addressing the behaviors or conditions which caused the original withdrawal. The student is expected to begin the clearance process not less than one full month prior to the beginning of classes for the requested return semester. Readmission may be contingent upon additional restrictions or requirements for the student's safety and success.

### Withdrawal from The University

Letters of withdrawal should be submitted in writing to the Program Director. The withdrawal timeframes and withdrawal grading policies for individual courses apply to withdrawals from the university as well. Please see the "Withdrawal from Individual Courses" section above for withdrawal timeframes and withdrawal grading policies. The Graduate Registrar will process all withdrawals.

Please see the tuition refund policy at https://www.wm.edu/offices/financialoperations/sa/tuition/withdrawals/index.php

The above withdrawal policies are separate from the university Refund of Tuition Policy.

### Military Withdrawal

The William & Mary has a military withdrawal process for those students called to active duty in the Military Services during a time of national emergency in which sudden withdrawal or prolonged absence is necessitated. Options are available for tuition relief, refund of payments, and reinstatement with a copy of official active duty orders. Please see your Program Office for further details if necessary.

### Leave of Absence

Students who wish to request a leave of absence for any reason should submit a written request to the Program Director. A student may request up to a one-year leave of absence from the program. Please refer to the "Readmission" policy for information on reactivating a student's status.

## Grades

### Grading System

| Grade | Quality Points per Semester Credit Hour |
|---|---|
| A | 4.00 |
| A- | 3.70 |
| B+ | 3.30 |
| B | 3.00 |
| B- | 2.70 |
| C+ | 2.30 |
| C | 2.00 |
| C- | 1.70 |
| F (Failure) | 0.00 |
| Grades not calculated in GPA | |
| W (Withdrawal) | |

I (Incomplete)
O (Successful Audit)
U (Unsuccessful Audit)
Pass/Fail (P/F)

Final grades for graduate business courses split across both fall and spring semesters (1.5 or 3 - 4.5 credit hour courses split across both semesters) will remain ungraded (not an "I") at the end of the Fall semester. During the spring semester, final grades will be posted for both fall and spring semesters.

Unless specified as (P/F) in the course description, business course cannot be taken on a P/F basis

## Incomplete Grade

A grade of Incomplete (I) indicates that a student has not completed essential course work due to illness or other extenuating circumstances. Incompletes are given only if a student has made satisfactory progress in the majority of classwork. Approval of an incomplete is at the discretion of the instructor. An "I" automatically becomes an "F" at the end of the following regular semester and before that semester grades are transcribed if the course work has not been completed satisfactorily. Any deferred or incomplete grade must be completed as agreed upon with the instructor, and within the time allowed to complete degree requirements. If you receive an I it may prevent you from taking a post-requisite course. Students will not be allowed to register if you have three unresolved incompletes on your record.

## Grade Change

The course instructor can initiate a grade change for legitimate reasons, including a change for a grade of "I" (Incomplete). For grade completions, a Grade Completion/Correction form should be completed by the Instructor and submitted to the Graduate Registrar, who will then submit the form to the University Registrar's office for processing. Grade corrections should also be completed by the Instructor, but require Associate Dean of Faculty's signature before processing. Faculty submit grade corrections to the Graduate Registrar, who will then submit the form to the University Registrar's office. Students are prohibited from handling grade change forms.

Once a student's degree has been conferred, the academic record is closed and grades cannot be changed or amended.

## Appeal of Grade Received

A continuing student has 30-calendar days after grades are posted to begin the grade appeals process. Once a student's degree has been conferred, the academic record is closed and cannot be changed or amended. When a student has a question regarding the grade received for a course, the process for appealing the grade is as follows:

1. The student contacts the professor to find out how the grade was compiled. If the issue is not resolved to the student's satisfaction, they should then contact their program office to learn about the grade appeal process.
2. If the grade remains in dispute, the student may write and submit an appeal letter to the Graduate Registrar. This appeal letter note specific reasons for the appeal
3. The Associate Dean of Faculty will review the appeal and may work with an appeal committee to come to a decision.
4. The Associate Dean of Faculty will inform the student of the action.

5. To dispute the decision of the Associate Dean of Faculty, the student must submit a written request for review of the decision to the Dean of the Mason School of Business. The decision of the Dean is final.

## Academic Status

The Graduate Registrar is charged to review the academic progress of all graduate business students. A minimum grade point average of 2.75 is required to graduate.

## Academic Probation

Students whose cumulative grade point average falls below 3.0 any semester will be automatically placed on academic probation and will receive a letter from the Graduate Registrar. The respective graduate programs will monitor the academic progress of probationary students. Students on academic probation will not be removed until they achieve a minimum of a 3.0 cumulative grade point average. Students who are on academic probation may not receive any Incompletes (I) for coursework during the semesters of probation.

## Academic Dismissal

A student will be dismissed from the program if he or she:

1. Receives a grade of "F" in any course at any time during the program;
2. Fails to achieve a cumulative GPA of at least 2.50 upon completion of 50% of the program; or
3. Fails to achieve a cumulative GPA of at least 2.75 upon completion of the program.

Under extraordinary circumstances, a dismissed student may be reinstated upon appeal to the Graduate Academic Status Committee. The Committee is comprised of the Associate and Assistant Deans for all the Mason School of Business graduate programs, one faculty member appointed by the Chair and the Associate Dean of Faculty (who serves as the Chair). The Graduate Registrar serves as an ex officio member of the committee and the Program Director may also attend as an ex officio member of the committee. All appeals must be submitted in writing to the Graduate Registrar no later than 7-calendar days after receipt of the notification.

## Appeal of Academic Dismissal

Under extraordinary circumstances, a student may be reinstated despite having been dismissed by appealing to the Graduate Academic Status Committee. Any student receiving more than one F will be dismissed from the degree program without appeal.

If a student wishes to appeal Dismissal from the Program by the Graduate Academic Status Committee:

1. The student must submit a letter justifying why the dismissal should be reversed and include a detailed plan for improving his or her academic status.
2. This letter should be sent to the Graduate Registrar, no later than 7-calendar days after receipt of the notification.
3. A student can request to be notified of the time and location of the meeting of the Appeals Committee so they can speak to the committee in person, although it is not required.
4. If a student disagrees with the decision reached by the Appeals Committee, they may submit a written appeal to the Dean specifying reasons for the appeal to the Dean. The Dean's decision is final.

## Transfer Credits

**Flex MBA Program**: It is expected that all work for the MBA degree will be completed at the Raymond A. Mason School of Business at William & Mary. Under certain circumstances, transfer credits requests

will be considered. Transfer credits must have been completed within (3) years of the start of the student's first Flex MBA semester and must not be applied to another graduate degree.

At the time of admission, a maximum of (9) semester hours of acceptable graduate credit earned at an AACSB-accredited institution may be transferred and applied to the graduate degree if the credit was earned prior to entering the Flex MBA Program. These requests must be received by the program office by the last day of the student's first semester in the program. After the student is enrolled, a maximum of (6) semester hours of acceptable graduate credit in a degree program at an AACSB-accredited institution may be transferred and applied toward the graduate degree unless a extenuating circumstance exists and your written request is approved by the program director.

Transfer credits requested after the student is enrolled will be considered only for extenuating circumstances such as relocation or business courses needed for employment that are not offered in the Flex MBA Program. Approval from the Program Assistant Dean must be obtained in advance for transfer credit to be considered.

**MGJW MBA Program**: Up to 6 transfer credit hours of ACE credit for the logistics training may be approved.

**EMBA Program**: Transfer credits from another AACSB-accredited school will be reviewed on a case by case basis and must be approved by the Program Associate Dean. If approved, the maximum number of transfer credit hours allowed is nine (9).

**Full-time MBA, MAcc, and MSBA:** The courses in our programs have been tailored to meet specific learning objectives that support appropriate student development at the appropriate time. It may not always be the case that a direct course equivalent will exist outside of our programs. However, students may request that an outside course be reviewed as a possible substitute, subject to the following:

- Courses must have been completed within (3) years of the student's matriculation in the Mason program.
- Courses may not have been applied to another graduate degree.
- Transfer credit review must be requested by the end of the student's first semester.
- Transfer credits must have been earned from an AACSB accredited institution with a grade of B or better.
- Transfer credits are not accepted into the residential MSBA program.

**Credit for Military Training**: Students with prior service in the Armed Forces of the United States may present the Joint Services Transcript or other documentation to the Program Office. Equivalencies to William & Mary courses rarely exist, but where they do, credit may be granted with departmental approval. The ACE Guide will be consulted, but its recommendations do not automatically apply.

**Note about transfer credits**: To ensure credit will be granted, students should seek approval for transfer credits prior to enrolling in the course. To obtain approval for a course, students should contact the Program Director. Transfer credits are not included in the cumulative grade point average because only the credit transfers, not the grade. A minimum grade of "B" (a B- is not acceptable) is required for all transfer courses. All transfer credit hours must be posted on the student record before a student is eligible to graduate. If an official transcript is not received in time to process transfer credit in the semester a student intends to graduate, a revised Notice of Candidacy for Graduation form must be submitted for the following semester, at which time the student will graduate.

**Online Programs:** Courses in the Raymond A. Mason School of Business Online Programs are tailored to meet specific learning objectives that support appropriate academic progression. The expectation is

that students will complete all of their coursework through the online program in which they are enrolled. Prior to matriculation, prospective students may request a transfer credit review of courses completed at another institution. Courses must meet the following criteria for consideration.

- Course must have been completed within (3) years prior to the student's matriculation into the Mason program.
- Courses must have been taken for credit at the graduate-level.
- Courses may not have been applied to another graduate degree.
- Transfer credits must have been earned from an AACSB-accredited institution with a grade of B or better.
- Course academic content must be equivalent to the Mason School course.

A maximum of eight (8) credit hours of acceptable graduate credit may be reviewed for transferability and applied to the graduate degree. Transcripts must be submitted through the application process. The program office must receive requests no later than the last day of Session A during the student's first semester in the program. Transfer credit approval is at the discretion of the Mason School of Business.

**Note:** A direct course equivalent may not exist outside of our online programs. The number of credits in a previous course may not match the number of credits in an online course. In this case, the student will need to make up the missing credit/s. Furthermore, exceptions to the maximum number of credit hours may be considered for students transferring in to an online program from another Mason School graduate business program.

## Degree Completion

The maximum length of time for degree completion in graduate business degree programs is:

| | |
|---|---|
| Full-Time MBA Program | 3 calendar years |
| Flex MBA Program | 5 calendar years |
| EMBA Program | 4 calendar years |
| Online MBA | 3 calendar years |
| Online MSBA | 2 calendar years |
| MAcc Program | 2 calendar years |
| MSBA Program | 2 calendar years |

All course and degree requirements must be completed within the listed time period, which begins at the time of initial enrollment. The time periods listed above include time away for any leave of absences with the exception of military deployment. Under extenuating circumstances, please contact the program office.

## Degree Evaluations

Degree audits are available via myWM Banner self-service for students and show the requirements for the degree and whether or not they are complete. Contact the Program Director if there are any omissions or errors, or if you have any questions.

## Notice of Candidacy (NOC) for Graduation

Students must file a Notice of Candidacy for Graduation by the following dates:

- January Graduation: June 30 (of the year prior to graduation)
- May or August Graduation: October 1 (of the year prior to graduation)

The degree will not be conferred if the student does not file the NOC. If a student subsequently fails to complete the degree requirements, a revised Notice of Candidacy for Graduation must be filed for the

semester requirements are to be completed. A one-time, non-refundable Graduation Fee (per degree) will be charged to all students by the university after they have filed their Notice of Candidacy for Graduation. Students can file online by at
https://www.wm.edu/offices/registrar/studentsandalumni/graduation/onlinegraduation/index.php

Or a paper form can be turned in to the Graduate Registrar or the University Registrar's office. The paper form can be found at: http://www.wm.edu/offices/registrar/documents/degree/notice_of_candidacy.pdf

Combined degree students must file a separate form for each degree. Both forms should be filed for the semester in which both degrees will be complete. The degrees will be conferred at the same time when all requirements for both programs are complete.

## Graduation

Degrees are conferred by the university in January, May, and August following the fall, spring, and summer semesters respectively. The Mason School of Business holds a diploma ceremony each year in May. Graduate students are automatically eligible to walk in the May ceremony if they complete their degree requirements in May, or the December preceding the May ceremony. Students who will complete their degree requirements in August are also eligible to walk in the May ceremony preceding their graduation, but will not receive a diploma until degree requirements have been met. Students must have a grade point average of 2.75 in order to graduate.

Winter graduates coming back for the May ceremony must inform their Program directly if they wish to attend Program events. All graduates must complete the online Commencement Ceremony Registration Form in order to attend the main ceremony. All combined degree students who graduate in January will be permitted to walk in the previous May ceremony. However, they must inform their Program directly if they wish to attend Program events.

The Executive MBA and the MGJW (Armed Forces MBA) hold separate diploma ceremonies each year at the end of the semester.

## Academic Achievement Awards

Academic awards are given by the Mason School of Business each year at the May graduation ceremony. These awards reflect outstanding academic achievement. All graduates who have completed their degree requirements in the prior 3 semesters (Aug-May) will be considered for these awards.

### Beta Gamma Sigma

Beta Gamma Sigma is the only honor society for collegiate schools of business recognized by the Association to Advance Collegiate Schools of Business (AACSB), our international accrediting association. Its membership consists of individuals who have distinguished themselves through outstanding performance in the study of business and management. The guiding principles of Beta Gamma Sigma are honor, wisdom, and earnestness.

The William & Mary Chapter invites to membership only those with academic standing in the top twenty percent of each graduate program. Combined degree students are considered for recognition based on their combined transcript.

## Class Rank

It is the policy of the Mason School of Business that class rank is not released. Students will be notified if they are in the top 20% of the class through Beta Gamma Sigma.

## Inclement Weather Policy

In the event of inclement weather, the university of William & Mary will announce any closings or delayed openings on local radio stations, television stations, and on the university's home-page. If the university is closed, the Peninsula Center is also closed. Students may also obtain updated closing information by dialing (757) 221-1SNO (221-1766.) For further information and a complete list of radio and television stations, please visit the university's Inclement Weather Policy at http://www.wm.edu/about/administration/provost/forfacstaff/weather/. EMBA students should check with the Program Director for specific weekend closures. See below for more information about inclement weather for Peninsula Center courses.

## For Courses at the Peninsula Center

Please be aware that sometimes the weather differs in severity between Newport News and Williamsburg. In such instances, class cancellations will be determined by the Associate Dean and will be communicated through email, and myFlexMBA no later than 4:00pm on the night of class. If students have any questions regarding the Peninsula Center's status, they may email the Flex Program staff. As in any situation, we ask that students use their best judgment and exercise caution when severe weather occurs. If a student feels that he or she is unable to drive to or from class safely, then we ask that he or she contact the professor via e-mail as well as the Flex MBA Program staff to inform us of the decision.

## Delayed Opening

Should the William & Mary experience a delayed opening, students should report to the first regularly scheduled class beginning after the university opens (for example, if the university opens at 10:00am, students would report to their 10:00am or 11:00am class, not to any class which began before 10:00am.)

Should William & Mary close early, all classes must dismiss at the time of the closure (for example, if the university closes at 2:00pm and your class begins at 1:30pm, the course must dismiss at 2:00pm.).

Students will receive their revised class schedule from their faculty or Program staff. Students may also obtain updated delayed opening information by dialing (757) 221-1SNO (221-1766.) For further information and a complete list of radio and television stations, please visit the university's Inclement Weather Policy at http://www.wm.edu/about/administration/provost/forfacstaff/weather/. EMBA students should check with the Program Director for specific weekend delays.

## Honor Code

Among the most significant traditions of William and Mary is the student-administered honor system. The honor system is based upon the premise that a person's honor is his or her most cherished attribute. The Honor Code outlines the conduct that cannot be tolerated within a community of trust. Prohibited conduct is limited to three specific areas of lying, cheating and stealing. The Honor Code is an agreement among all students taking classes at the school or participating in the educational programs of the university (e.g., study abroad or internship activities) not to lie, cheat or steal. This agreement is made effective upon matriculation at the university and through the student's enrollment even though that enrollment may not be continuous.

# Raymond A. Mason: Tuition and Other Expenses

The university reserves the right to make changes in its charges for any and all Programs at anytime, after approval by The Board of Visitors.

The Student Accounts Department (also known as the Bursar's Office) provides current information on tuition rates, general student fees, payment due dates and other relevant information to assist students with their financial planning on their website at:
https://www.wm.edu/offices/financialoperations/sa/index.php.

**Full-time and Flex MBA Students who withdraw from the university**
MBA students who withdraw from the university within the first school week of the semester are eligible for a full refund of tuition and fees . After the first week, the amount of the tuition and fees to be charged will follow the withdrawal schedule. Students will not be eligible for any refund of tuition and general fees if required to withdraw by the university.

### Full-time, Flex and Executive MBA Students who withdraw from a course
Students wishing to add or drop a course may do so in Banner Self Service through the add/drop period. See "Academic Policies: Registration and Add/Drop" for more information on adding or dropping courses. The withdrawal period for MBA students begins following the add/drop period. A student who withdraws from a course after the add/drop period but remains registered for other academic work will not be eligible for a refund. Executive MBA students may not withdraw from a course and remain in the program.

### Executive MBA Payment of Accounts
Executive MBA students are billed by the university's Bursar's Office. Please refer to the student accounts website (https://www.wm.edu/offices/financialoperations/sa/tuition/graduate/fall2019/index.php) for policies associated with student accounts, payments, late fees, holds, payment plan and other relevant information.

### EMBA Refund Policy
Please refer to the EMBA Program section of this catalog for the EMBA refund policy.

### Online Programs Tuition and Fees
Please visit the Student Accounts Department website for current information on tuition rates, general student fees, payment due dates and other relevant information to assist students with their financial planning (https://www.wm.edu/offices/financialoperations/sa/online_programs/index.php).

## Raymond A. Mason: Student Financial Aid, Scholarships, & Graduate Assistantships

### Student Loans
Many students utilize student loans to finance all or a portion of their graduate education. Loan eligibility for U.S. Citizens and Permanent Residents is evaluated by the university's Office of Student Financial Aid, as determined by the information provided on the Free Application for Federal Student Aid (FAFSA), which is submitted to the U.S. Department of Education. The Office of Student Financial Aid manages all information regarding loan programs, and can provide information, if available, regarding loan options for international students. Student loans should be applied for and processed before the beginning of class each semester. Scholarships and Graduate Assistantships are not available for Online Program students.

Please visit the financial aid website to apply as a graduate or professional student (https://www.wm.edu/admission/financialaid/howto/graduatestudent/index.php ).

### Financial Aid Awarded by the Raymond A. Mason School of Business

#### Full-time MBA Program

The Raymond A. Mason School of Business awards one type of financial aid to students who are enrolled in the full-time MBA Program in the form of graduate assistantships. All MBA Program aid award decisions are based on merit and do not include consideration of a student's financial need. The university's Office of Student Financial Aid administers a comprehensive financial aid program including a number of federal and private loan resources. **The Mason School of Business reserves the right to revise the information contained in this section at any time based on funding availability and restrictions and enrollment goals**.

#### Second-Year Aid - Full-time MBA Program

Unless a two-year award is listed in the student's acceptance letter, aid does not automatically renew. Information regarding second-year graduate assistantships are made available by e-mail to all first year students at the end of the academic year. Consideration for second-year graduate assistantships is based on a student's academic performance and contributions to the program and community during the first year of MBA studies. Students will be required to submit an application to the Graduate Assistantship Committee for consideration for second-year graduate assistantships. Decisions regarding second-year aid awards are made by the Graduate Assistantship Committee, typically in late June after all final grades from first-year courses have been calculated. Students must achieve a minimum cumulative grade point average of 3.0 in the first year to be eligible for a graduate assistantship. Those students on exchange programs or not enrolled full-time in the MBA Program are not eligible to receive scholarships or hold graduate assistantships.

#### Joint/Dual Degree Students

Combined degree students in the MBA/MPP, JD/MBA, MBA/MAcc, MBA/MEd, EDd or PhD programs are eligible for consideration to receive Mason School of Business scholarships. Graduate Assistantships are typically not awarded to combined degree students except on a limited basis.

## Raymond A. Mason: Resources

- Resources/Directory
- Mason Student Resources

## Raymond A. Mason: Resources/Directory

- Full-Time MBA Program
- Flex MBA Program
- Executive MBA Program
- Center for Online Learning
- Master of Accounting Program
- Master of Science in Business Analytics Program

### Directory of Administration Offices

| | | |
|---|---|---|
| Lawrence B. Pulley | Dean | 757-221-2891 |
| Kurt Carlson | Associate Dean of Faculty and Academic Affairs | 757-221-1770 |
| Jackie Ferree | Associate Dean, Finance and Administration | 757-221-2917 |

| | | |
|---|---|---|
| Laura Doherty | Associate Dean, | 757-221-2802 |
| Ken White | Associate Dean, MBA and Executive Programs | 757-221-2064 |
| Jennifer Dahnke | Assistant Dean of Undergraduate and One Year Masters' Program | 757-221-2719 |
| Helene Hale | Executive Assistant to the Dean | 757-221-2991 |
| Charee Ellison | Graduate Registrar | 757-221-2793 |

## MBA Programs:

### Full-Time MBA Admissions

**Amanda Barth**, Director, Full-Time MBA Admissions
Amanda.Barth@mason.wm.edu
757-221-2944

**Joshua Lustig**, Associate Director, Full-Time MBA Admissions
Joshua.Lustig@mason.wm.edu
757-221-2898

**Emma Homan**, Assistant Director, Full-Time MBA Admissions
emma.homan@mason.wm.edu
757-221-2900

**Toni Sturdivant**, MBA Admissions Coordinator
Toni.Sturdivant@mason.wm.edu
757-221-2899
http://mason.wm.edu/programs/full-time-mba/admissions/index.php | 757-221-2900

### Full-Time MBA Program

**Carlane Pittman**, PhD, Director of MBA Programs
cjpitt@wm.edu
757-221-2296

**Michele Mitchell-Moffit**, Associate Director of MBA Programs
mrm2@wm.edu
757-221-2895

**Patty Lalumiere**, Associate Director of MBA Special Programs
palalu@wm.edu
757-221-2928

**Megan Cofone**, Assistant Director of MBA Programs
mcofone@wm.edu
757-221-7603

### Flex MBA Admissions

**Kimberly Mallory**, Director of MBA Programs for Working Professional
Kim.Mallory@mason.wm.edu
(757) 221-2242

**Amy Blackburn**, Associate Director of Flex MBA Recruitment
Amy.Blackburn@mason.wm.edu

(757) 221-2912

**Macie Osbor**n, Administrative Coordinator
Macie.osborn@mason.wm.edu
(757) 221-3208

## Flex MBA Program

**Carlane Pittman** PhD, Director of MBA Programs
jpitt@wm.edu
(757) 221-2296

**Jennifer Nelson**, Associate Director, Flex MBA Program
jenelson@wm.edu
(757) 221-4300

## Executive MBA Admissions

**Kimberly Mallory**, Director of MBA Programs for Working Professional
Kim.mallory@mason.wm.edu
757-221-2242

**Jana Allen**, EMBA Associate Director of Recruitment
Jana.allen@mason.wm.edu
757-221-2356

## Executive MBA Program

**Carlane Pittman** PhD, Director of MBA Programs
cjpitt@wm.edu
(757) 221-2296

**Miriam DaSilva**, Program Coordinator
mdasilva@wm.edu
(757) 221-2902

**Macie Osborn**, Administrative Coordinator
Macie.osborn@mason.wm.edu
(757) 221-3208

## Center for Online Learning

Learn about our programs by visiting https://online.mason.wm.edu/

For admissions inquiries please contact our dedicated advisors.
757-707-8328
masononline@wm.edu

**Online Masters of Business Administration**
**Jim Olver**, Faculty Director
james.olver@mason.wm.edu
757-221-2861

**Online Masters of Science in Business Analytic**s

**Joe Wilck**, Faculty Director
Joe.Wilck@mason.wm.edu
757-221-2894

**Pam Suzadail**, Director of Online Programs
psuzadail@wm.edu
757-221-2696

**Kevin Holmes**, Director of Admissions and Enrollment Management
kmholmes02@wm.edu
757-221-1950

**Ali Blankinship**, Director of Instructor Affairs
acbriggs@wm.edu
757-221-1725

**Diane Fogel**, Associate Director Student Success & Engagement
dmfogel@wm.edu
757-221-1424

**Erin Dunne**, Admissions Coordinator
eedunne@wm.edu
757-221-6249

## Specialized Residential One Year Masters Programs:

### Master of Accounting Admissions

**Jonathan Schramm**, Director of Admissions, Undergraduate and One Year Masters Programs
Jonathan.Schramm@mason.wm.edu
757-221-1763

**Midori Juarez**, Associate Director of Admissions, Undergraduate and One Year Masters Programs
Midori.Juarez@mason.wm.edu
757-221-2934

**Beth Snavely**, Assistant Director of Admissions, Undergraduate and One Year Masters Programs
Beth.Snavely@mason.wm.edu
757-221-2879

### Master of Accounting Program

**Denise Jones**, Accounting Programs Department Chair
Denise.Jones@mason.wm.edu
757-221-2876

**Julie Hummel**, Director of Student and Academic Services
Julie.hummel@mason.wm.edu
757-221-6213

**Melanie Weast**, Assistant Director, One Year Masters' Programs
Melanie.Weast@mason.wm.edu
757-221-1319

### Master of Science in Business Analytics Admissions

**Jonathan Schramm**, Director of Admissions, Undergraduate and One Year Masters Programs
Jonathan.Schramm@mason.wm.edu
757-221-1763

**Michael Bracelin**, Associate Director of Admissions, Undergraduate and One Year Masters Programs
Mike.Bracelin@mason.wm.edu
757-221-2953

**Beth Snavely**, Assistant Director of Admissions, Undergraduate and One Year Masters Programs
Beth.Snavely@mason.wm.edu
757-221-2879

### Master of Science in Business Analytics Program

**Aaron Koehl**, Faculty Director
Aaron.Koehl@mason.wm.edu
757-221-2069

**Julie Hummel**, Director of Student and Academic Services
Julie.hummel@mason.wm.edu
757-221-6213

**Melanie Weast**, Assistant Director, One Year Masters' Programs
Melanie.Weast@mason.wm.edu
757-221-1319

## Raymond A. Mason: Student Resources

- Graduate Career Management Center
- Executive Partners
- The McLeod Business Library
- Library Resources and Services
- Use of facilities in Alan B. Miller Hall and the Peninsula Center
- Access/Keys/Security
- Boehly Cafe and Argo Tea Company
- Lockers and Locker Policy
- Technology Services in Miller Hall
- W&M Information Technology Department

## Graduate Career Management Center

The Graduate Career Management Center (GCMC) provides career development and job search services to graduate business students, including full-time MBA, Master of Accounting, MS in Business Analytics, Flex MBA, Executive MBA, Online MBA and Online MS Business Analytics programs. The GCMC offers a variety of services and resources, including:

- Summer Start-up Program for residential students to jumpstart to their job search
- 1:1 coaching and advising services
- Access to job search tools and resources including MASONlink, VMock Resume and Linkedin tools, InterviewStream, Relish Careers, MBA-Exchange, Careernomics and others
- Professional development and job search workshops focusing on resumes/cover letters, interview preparation, networking, personal branding, social media, offer evaluation and negotiation and other career skills

- Employer Information Sessions
- On and off-campus networking events with alumni and hiring managers
- Self-Assessments to identify interests, skills, motivations and career paths
- Employment outcomes reports
- National and local career fair preparation
- Personalized job search support
- Interview Prep and Mock Interviews

Alan B. Miller Hall, Suite 1049
T: 757-221-7887
F: 757-221-2958
gradcareers@mason.wm.edu
http://mason.wm.edu/careers/

**Patrice Lincoln**, Director, Career Advising & Education
Patrice.Lincoln@mason.wm.edu
757-221-6245

**Mike Ryan**, Director, Corporate Relations & Employer Relations
Michael.Ryan@mason.wm.edu
703-629-1546 (cell)

**Dennis Amrine**, Associate Director, Career Advising & Education
Dennis.Amrine@mason.wm.edu
757-221-7833

**Sean Schofield**, Associate Director, Graduate Career Advising
Dennis.Amrine@mason.wm.edu
757-221-2875

**Justin Wright**, Associate Director, Career Advising & Education
Justin.Wright@mason.wm.edu
757-221-6367

**Colleen Lynch**, Assistant Director, Recruiting & Operations
Colleen.Lynch@mason.wm.edu
757-221-7887

**Rosalyn Hundley**, Associate Director, Corporate Relations & Employer Development
Rosalyn.Hundley@mason.wm.edu
757-221-7846

**Amy Moyer**, Associate Director, Corporate Relations & Employer Development
Amy.Moyer@mason.wm.edu
804-815-3328 (cell)

## Executive Partners

Executive Partners is a volunteer organization dedicated to enriching and expanding the educational experience of students enrolled in the Raymond A. Mason School of Business at William & Mary. Executive Partners add to the effectiveness of the programs designed by faculty and administration and support their efforts to prepare the next generation of business leaders. This network of experienced senior business executives, volunteer their time, expertise and contacts to the Raymond A. Mason School

of Business and to all its constituencies. The School views the Executive Partners as a powerful resource that will enable its graduates to become the most skilled candidates possible for the challenges afforded by the business community.

Executive Partners is made up of about 140 volunteers with backgrounds in over 36 diverse industries, management in both large and small companies, and multiple functional skills. Over 40% have international expertise. Executive Partners provide career guidance, coaching, placement and networking support. The Executive Partners also mentor students in their career selection and advise them on the skills required in their chosen industry and functional areas.

Faculty members utilize Executive Partners in the classroom to share relevant experiences that augment and enhance the classroom-learning environment. In cases where special expertise is required, Executive Partners may be asked to teach a course. Executive Partners frequently judge competitions and critique students' presentation skills.

Executive Partners are always seeking opportunities to respond to the interests and needs of students beyond their normal classroom experiences. The members offer panel sessions on topics that are of special interest to students and that complement curriculum offerings. The members also provide speaker support and program guidance to MBA Student Committees.

The Executive Partners Knowledge Management System (KMS) is an intranet site available for the exclusive use of Raymond A. Mason School of Business students, faculty, administrators and Executive Partners. KMS is a database that includes photos and profiles of Executive Partners. It provides both a directory and query system to help users find the Partner who can best help them. All students have access to this system using their William & Mary ID and password.

Instructions for students:
Go to: mason.wm.edu and select "intranet" at the bottom of the screen. Sign in using your William & Mary ID. Click on Executive Partners Intranet. You can click on "Directory" for an alphabetical listing of Executive Partners, or "Query System" if you want to search for an EP by industry, functional area or area of interest. If you are looking for contact information for a specific EP, go to "Directory." Click on the name of the person you want to contact. This will bring up contact information for that EP. If you wish to contact the entire group, you must make your request to the Executive Director of the Executive Partners (terry.shannon@mason.wm.edu). Once approved, it will be forwarded to the entire group.

Allan B. Miller Hall, Suite 2013

### Executive Partner Leadership Team:

**Nancy Turner**, Executive Director, NcTurner@wm.edu
**Frank Wood**, MBA/EMBA/Flex & MAcc Faculty Coordination, FRWood@comcast.net
**Nancy Turner**, Leadership Development Coaching Director, NcTurner@wm.edu
**Terry Shannon**, Corporate Field Consultancy Coordination, TPShannon@wm.edu
**Sharon Wood-Dunn**, Membership Director, Sharon.Wood@mason.wm.edu
**Tom Numbers**, Graduate Career Management Center Coordination, Robert.Numbers@mason.wm.edu
**Andrew Lloyd-Williams**, Entrepreneurship, Andew.Lloyd-Williams@mason.wm.edu
**Steve Mamikonian**, BBA Coordination, Steve.Mamikonian@mason.wm.edu

### The McLeod Business Library

Located on the second floor of the Raymond A. Mason School of Business in Miller Hall, the McLeod Business Library is your center for business research. Librarians, staff, and student assistants are ready to help you access business information and data in both print and electronic formats. Most databases can be

accessed remotely by the Mason community. Individual and group workstations are available for business research and study. Food and beverages are allowed in the Business Library.

Alan B. Miller Hall, Suite 2034

https://mason.wm.edu/about/library

Anna Milholland, Business Librarian
Anna.Milholland@mason.wm.edu
(757) 221-2915

**Kyle Valliant**, Business Library Assistant
kyle.valliant@mason.wm.edu
(757) 221-2916

There is an online CHAT (Ask a Librarian) that is available during normal library hours. When CHAT is offline, email Kyle Valliant kyle.valliant@mason.wm.edu for assistance.

**Library Hours**
Hours for the library are posted on the McLeod Business Library website. Because the hours may vary, especially during interim periods and holidays, students should check the web page to confirm hours before visiting.

Regular Hours:

| | |
|---|---|
| Mondays - Thursdays | 8:00 a.m. - 10:00 p.m. |
| Fridays | 8:00 a.m. - 5:00 p.m. |
| Saturdays | 10:00 a.m. - 6:00 p.m. |
| Sundays | 10:00 a.m. - 10:00 p.m. |

## Library Resources and Services

### Business Databases
The McLeod Business Library has 54 business databases, including two Bloomberg terminals. You may search on the homepage by going to the Databases A-Z portal, which will then link to appropriate resources. These databases are also accessible through W&M Libraries by searching Databases/Business.

Databases are accessible remotely by using your WMUserID and Password.

Several resources have restrictions.

- WRDS requires user registration and approval to access. WRDS accounts are generally restricted to graduate students and faculty, but exceptions can be made and are considered on a case by case basis.
- ThomsonOne database can only be accessed by using the Internet Explorer web browser and may be accessed remotely.
- The Morningstar database is only available on computers in McLeod Library. McLeod Library has 8 computers for WM users only.

### Research Guides
Business Librarians have created a number of research guides, which link specific databases to common and course-specific Business research tasks and topics (Company and industry research, finding a

company's annual report, et al). Guides are organized by discipline, course, and topic at https://guides.libraries.wm.edu.

### Popular and Reference Collection

All items in the Business Library's reference collection are listed in the W&M Libraries online catalog, found at https://libraries.wm.edu. You can narrow your results to those materials that are located within the Business Library or any of the other branch libraries.

The Popular Collection titles include both fiction and nonfiction. Students may check out these books for 28 days. Reference materials may be used within the library and may not be checked out.

### Research Assistance

If you need research assistance, help is available! You can schedule a research consultation with a business librarian on the Business library website. Consultations usually last from 30 minutes - 1 hour in length, and can occur in-person at McLeod Business Library, at the William & Mary Peninsula Center in Newport News, or online via Zoom, Google Meet, or similar platform.

### Course Reserves

Professors may place course materials, including textbooks, on reserve in the Business Library. This provides all students with reliable, equitable access. Reserve items are generally available for three hour checkouts and are not allowed to leave the library.

### Group Study Lab

There are six group study tables, which are equipped with five network jacks and a shared monitor. Students and their groups may use the five-person study tables for collaborative assignments and projects.

### Printing and Scanning

Students can print from the library computers and can also connect to library printers with their personal laptops. Printing costs are added to the student's account and are not paid in the library.

Students may scan documents and e-mail them to an address of choice. Scanning is free.

## Use of facilities in Alan B. Miller Hall and the Peninsula Center

### Alan B. Miller Hall

- When classrooms in Miller Hall are open, they may be reserved for class project preparation, review sessions and officially recognized guest speakers.
- Students may reserve any of the 14 classrooms through their respective program offices.
- Students may be required to move or reschedule their activity if the room is needed for a School of Business event.
- The Financial Markets Classroom doubles as a computer lab consisting of 42 computers for student use.
- Please leave the room clean and tidy, with the technology turned off.

### Peninsula Center

- Students may access the Peninsula Center between the hours of 6:00am and 12:00am with their Student ID Card. This satellite location is at 41 Old Oyster Point, Suite F, Newport News, VA 23602.
- Meeting rooms are available when not reserved.
- This location has four classrooms, four team rooms and four computers for student use.

- Two Interview rooms are available when not reserved.
- Students may be required to move or reschedule their activity if the room is needed for a School of Business event.
- Please leave the room clean and tidy, with the technology turned off.

### Meeting Rooms (Miller Hall & Peninsula Center):

There are thirteen team-meeting rooms on the lower level of Miller Hall, eleven team-meeting rooms on the first level of Miller Hall and four team-meeting rooms at the Peninsula Center. Student use of team meeting rooms is restricted to business students only. Student groups can reserve team-meeting rooms for up to seven days in advance by using the EMS reservation system on-line.

Appropriate use of the team meeting rooms is on the honor system. Team meeting rooms are intended for collaborative group work and should not be used by a single group for more than two hours.

**Meeting Room Guidelines**

- Meeting rooms may be reserved for groups of up to 7 people. The small meeting rooms are for small group student use only. Please respect other students' needs for meeting space and limit use to two hour blocks of time. Do not leave belongings unattended in these rooms to "hold" the space or post signs of intended use.
- Miller Hall food and drink policies apply to team meeting rooms.
- Students must clean up after themselves and leave the room in excellent condition for the next group of students. Furniture should not be moved in or out of the team meeting rooms.

## Access/Keys/Security

### Miller Hall

Raymond A. Mason students' WM ID cards will allow access from 6:00am - 2:00am daily. After 2:00am the building will close and security officers will clear the building. Offices and suites are accessed by a key.

### Peninsula Center

MBA students ID cards will allow access from 6:00am to 12:00am daily.

## Boehly Cafe and Starbucks

The Boehly Café and Starbucks We Proudly Serve, located in Miller Hall, are open for breakfast and lunch during the academic year. Students can use their W&M Express cards to make purchases.

## Lockers and Locker Policy

Lockers are available for rent to MBA Full-time, MAcc and MSBA students at the beginning of the school year. These lockers are located on the lower level of the Miller Building. Materials kept in lockers are the responsibility of the user. The Mason School of Business takes no responsibility for lost, stolen or damaged materials while stored in lockers. The Mason School of Business reserves the right to inspect the contents of a locker at any time and will do so periodically. Food may not be kept in lockers.

To reserve a locker, contact the MBA Full-time, MAcc or MSBA programs.

## Technology Services in Miller Hall

Technology Services is committed to providing a high level of service to ensure that information technology is an effective enabling tool for all Raymond A. Mason School of Business departments and divisions.

Technology Services' goals are to provide: timely and effective technical support of computer software and technical tools that effectively support business needs, secure and reliable electronic environments, and new technology solutions that are rapidly acquired and implemented.

Students are required to have acceptable laptop computers (see our Laptop Requirements page, http://masonweb.wm.edu/technology/docs/laptop_requirements.pdf, for more information). It is the responsibility of the student to obtain sufficient technical and warranty support on his/her laptop computer and software supported by Technology Services for course work. Technology Services cannot be responsible for supporting student hardware and will refer students to the hardware manufacturer or third-party repair facilities to deal with hardware problems or problems with software/operating systems not supported by Technology Services.

MSBA Students have a more technical set of laptop requirements that can be found here: http://mason.wm.edu/programs/msba/admissions/prerequisites/index.php

## Technology Services Help Desk

All requests for assistance should be directed to the Technology Services Help Desk. The Technology Services Help Desk serves as a centralized point of contact for all computer issues for the Mason School of Business staff, faculty, and students.

The Help Desk can be reached by calling (757) 221-3401 between 9:00 AM and 4:00 PM weekdays (except holidays). Non-emergency, scheduled, or access requests to the Help Desk may also be submitted using e-mail. The Help Desk can be reached via e-mail at: help@mason.wm.edu.

Student walk-in service is also available in Alan B. Miller Hall, room 2012 (north wing, 2nd floor) between 9:00 AM and 4:00 PM, for problems that require immediate attention. The Help Desk will be staffed weekdays (except holidays). All requests to the Help Desk are monitored to improve customer service and the timeliness of their services.

If a student experiences problems after hours in a Raymond A. Mason School of Business classroom, he or she should refer to our Classroom Troubleshooting FAQ on our website, http://masonweb.wm.edu/it/multimedia.asp. For further information regarding our technology and its use after hours, please browse our Web site, http://masonweb.wm.edu/it/.

The Help Desk prioritizes all requests according to their urgency to ensure appropriate response time to the multitude of service requests received. Service requests for issues affecting multiple users, or problems that prevent individuals from performing their work completely, are given a higher priority than requests for minor issues, such as new software installations.

**Technology Services Help Desk**
Room 2012, Alan B. Miller Hall
http://masonweb.wm.edu/it
757-221-3401
help@mason.wm.edu

## W&M Information Technology Department

The Information Technology Department offices are located in Jones Hall and the Technology Support Center in room 208 (http://www.wm.edu/it/ or 757-221-HELP) is responsible for the following systems on campus:

- Blackboard
- Banner
- myWM (my.wm.edu)
- Campus e-mail
- Campus computer labs
- Campus network

*Please see William & Mary Technology Services Department under William & Mary Student Resources.*

## Raymond A. Mason: Programs

The Raymond A. Mason School of Business offers four different Master of Business Administration (MBA) programs: Full-time, Flex, Executive, and Online. The Flex, Executive, and Online MBA programs are designed for working professionals.

Two specialized master programs are offered: Master of Accounting (MAcc) and Master of Science in Business Analytics (MSBA). All students get a personalized, experience-based business education partnering with faculty and executives in real-time, real-world business cases.

Two Online Programs are offered by the Mason School of Business: Online MBA and Online MSBA

All graduate programs are accredited by the Association to Advance Collegiate Schools of Business International (AACSB International) and the Southern Association of Colleges and Schools (SACS).

## Programs Offered

- Master of Business Administration - Full-Time
- Master of Business Administration - Flex
- Master of Business Administration - Executive
- Master of Business Administration - Online
- Master of Accounting (MAcc)
- Master of Science in Business Analytics (MSBA)
- Master of Science in Business Analytics - Online
- Mason Combined Degrees and Dual Degree

## Full-Time Master of Business Administration

- Program Description
- Degree Requirements
- Academic Calendar
- Fact Sheet
- Length of Program
- Format
- Specializations
- Combined/Dual Degree Programs
- Admissions Requirements
- Application Deadlines
- Tuition
- Graduate Assistantships

## Program Description

**Full-Time MBA**

The William & Mary full-time MBA is a highly personalized, experience-based program that challenges the student on the same fronts as today's business leaders. The experience will span core courses, electives, Career Acceleration Modules (CAMs) and our Leadership Development and Ethics course.

There are six specializations available, which include: Business Analytics, Consulting, Finance, Innovation & Entrepreneurship, Marketing, and Supply Chain Management.

**Major General James Wright MBA Program**
The Major General James Wright MBA Fellowship is an exclusive partnership between the Raymond A. Mason School of Business and the U.S. Army. Classes are held at William & Mary in Alan B. Miller Hall, and the curriculum is tailored with an intensity meant to match the pedigree of Army leaders. The program includes a focus on the Federal government budgeting process as it applies to national defense, as well as a certification in Six Sigma and specialize in Supply Chain Management.

## Degree Requirements
## Full-Time MBA

### Total Number of Full-Time MBA Credit Hours: 59

**First Year - Fall**

- BUAD 5011 - Communicating for Results (2)
- BUAD 5101 - Financial Accounting and Disclosure (2)
- BUAD 5701 - Data Analysis (2)
- BUAD 5801 - Leadership Development & Ethics (LDE) (2)
- BUAD 5301 - Financial Management (2)
- BUAD 5401 - Marketing Management (2)
- BUAD 5501 - Organizational Behavior & Process (2)
- BUAD 5721 - Economic Analysis & Insights (2)
- BUAD 5951 - Sprint (1)
- BUAD 5931 - Charting your MBA Career (.5)

**Total Semester Hours: 17.5**

**First Year - Spring**

- BUAD 5111 - Accounting for Decision Making (2)
- BUAD 5211 - IT Infrastructure and Business Transformation (2)
- BUAD 5601 - Operations and Supply Chain Management (2)
- BUAD 5941 - Bus, Govt, & Global Economy (2)
- BUAD 5901 - Global Competitive Strategy (2)
- BUAD 5931 - Charting your MBA Career (.5)
- BUAD 5951 - Sprint (1)
- Concentration Elective (4)

*(Two First year electives - students will indicate preferences for two electives)

**Total Semester Hours: 15.5**

**Second Year - Fall**

- BUAD 598X - Career Acceleration Module (6)
- Elective Courses* (6)
- BUAD 5951 - Sprint (1)

**Total Semester Hours: 13**

**Second Year - Spring**

- BUAD 5951 - Sprint (1)
- Elective Courses* (6)
- Elective Courses* (6)

*Please contact your Program Team for more information.

**Total Semester Hours: 13**

## Academic Calendar

**2019 Fall Semester**

| | |
|---|---|
| August 12-16 | Pre-MBA Accounting and Math Boot camp/Orientation |
| August 19-24 | REQUIRED Orientation for First Year students |
| August 26 | Beginning of classes for All MBA Students and Beginning of Add/Drop period |
| August 28 | REQUIRED Re-Orientation for Second Year students |
| September 2 | Labor Day - Classes in session |
| September 4 | Last day to add/drop courses |
| October 1 | Notice of Candidacy forms for January, May and August 2019 Graduates |
| October 12-15 | Fall Break |
| October 18 | Session A Classes Ends |
| October 21-25 | MBA Sprint Week |
| October 28 | Session B Classes Begins |
| November 27-December 1 | Thanksgiving Holiday |

**2020Spring Semester**

| | |
|---|---|
| January 2 | Fall Grades due |
| January 20 | Beginning of classes for All MBA Students and Beginning of Add/Drop period |
| January 21 | Martin Luther King Holiday - NO CLASS |
| January 30 | Last day for Add/Drop classes |
| March 6 | Session C Classes End |
| March 7-15 | Spring Break |
| March 16-20 | MBA Sprint Week |
| March 23 | Session D Classes Begin |
| May 7 | Session D Classes End |
| May 13 | Graduating Students Spring Semester Grades Due |
| May 15-17 | Commencement Activities |
| May 19 | Continuing Students Grades Due |

**NOTE**: All dates are subject to change. Please refer to the program website for current calendar dates website.

## Fact Sheet

**Full-time MBA:**

The William & Mary Full-time MBA exposes students to a wide array of complex, real-world business experiences. To be successful you must be able to address the intricacies of the business world where opportunities and challenges impact multiple functional areas in an organization. The structure of our

program mirrors the complexities of the business world by combining theory with practice. As an MBA student, you will utilize our ever-expanding network of business resources to achieve your potential. You will refine your business acumen through core courses, electives, Career Acceleration Modules (CAMs), the Field Consultancy Program, Leadership Development and Ethics, and Graduate Career Management courses and workshops.

## Length of Program:

Two years (22 months)

## Format:

Your first year of studies is divided into four sessions, each composed of core courses, the Global Competitive Strategy course and two market-driven electives. You will also be begin your partnership with your Leadership Coach in The Principled Professional course. Following a summer internship, your second year immerses you into the business world. You will take part in one Career Acceleration Module during the first session of the fall semester session A, followed by a host of elective options in your second through fourth sessions. You may also elect to take the Corporate Field Consultancy course where you will be immersed in a real-world consulting project.

Specializations available include: Business Analytics, Consulting, Finance, Innovation & Entrepreneurship, Marketing and Supply Chain Management.

## Specializations

The Mason MBA is a general management degree. The full-time program offers six (6) market-driven specializations designed to enhance your success in the career of your choice. These six (6) areas were chosen for specializations based on an assessment of the job market, and more importantly, where positions will be available. Each specialization includes one of Mason's unique CAMs (Career Acceleration Modules) as well as electives tailored to meet the requirements recruiters in each field tell us they are looking for in MBA candidates. -Students have the choice to pursue a specialization in preparation for a specific field or pursue a general management degree without a specialization, which provides the maximum flexibility in your course selection.

**Business Analytics**

In recent years, the data revolution has created new challenges as organizations seek to use and understand the information they collect. Designed to meet this industry demand, the Business Analytics specialization will give you the analytical skills necessary to help businesses gain actionable insights into their data and focus on functional areas such as logistics, technology, and information systems. This specialization allows you to broaden your professional skills and lead strategically across the organization while also giving you the management and leadership skills needed to succeed in the field.

**Consulting**

The Consulting specialization prepares students for successful careers in a variety of high-demand areas such as federal consulting, operations consulting, IT consulting, human capital consulting, and management consulting. Courses in this specialization will equip you with the skills you'll need to effectively solve strategic business problems and excel in this sought-after field.

**Innovation and Entrepreneurship**

The Innovation and Entrepreneurship specialization delivers an experiential curriculum that develops student's understanding of the fundamentals of creating and running a successful enterprise. In addition to the classroom experience, the Mason School's Alan B. Miller Entrepreneurship Center will guide you through the business start-up process, fostering the entrepreneurial mindset necessary to be successful.

**Finance**
The Finance specialization will provide you with the analytical tools and conceptual framework needed to evaluate financial firms and transactions. The specialization will position you strongly to become a financial leader in a variety of industries such as capital markets, commercial banking, corporate finance, financial analysis, consulting and wealth management.

**Health Sector**
Healthcare has experienced rapid change in recent years, making it one of the fastest growing areas for employment nationwide. As policy regulations and information technology transform the sector, executives who can adapt to this revolving industry are in high demand. Our healthsector specialization will prepare you to lead by immersing you into the field and exposing you to the distinctive challenges faced by the industry.

**Marketing**
The Marketing specialization gives you an in-depth understanding of the concepts, tools, and practices of modern marketing. Brand management, B2B marketing, marketing analytics, segmentation, positioning, account management, as well as other marketing topics, will hone your skills to develop and implement successful marketing strategies.

**Supply Chain Management**
In recent years, the data revolution has created new challenges as organizations seek to use and understand the information they collect. Designed to meet this industry demand, the Business Analytics specialization will give you the analytical skills necessary to help businesses gain actionable insights into their data and focus on functional areas such as logistics, technology, and information systems. This specialization allows you to broaden your professional skills and lead strategically across the organization while also giving you the management and leadership skills needed to succeed in the field.

## Combined/Dual Degree Programs:

**JD/MBA**: Combineddegree program with the William & Mary School of Law, Juris Doctor and Master of Business Administration. (4 years)
**MD/MBA**: Dual degree program with Eastern Virginia Medical School. (5 years)
**MBA/MED:** Combined degree program with the William & Mary School of Education. (3 years)
**MBA/MAcc**: Combined degree program within the Master of Business Administration and a Master of Accounting Programs. (2.5 years)
**MBA/MSBA**: Combined degree program within the Master of Business Administration and a Master of Business Analytics Programs (2.5 years)
**EDD/MBA or PhD/MBA**: Combined degree program with the William & Mary School of Education. (5+ years)

## Admissions Requirements:
William & Mary is looking for candidates who intend to do great things and make a difference in the world. Successful applicants come from a variety of academic, professional and cultural backgrounds. We require a submitted online application form and application fee, academic transcripts from any colleges/universities attended, GMAT or GRE, TOEFL, IELTS or PTE, essays, a resume, letters of recommendation, and an interview offered by invitation (on-campus, via Skype or phone).

## Application Deadlines:
Admissions deadlines are divided into five rounds:

**Round 1** November 5, 2019
**Round 2** January 6, 2020
**Round 3** March 9, 2020
**Round 4** May 4, 2020
**Round 5** Applications are reviewed on a rolling basis through the month of July as seats are available in the MBA class.

**Website:** http://mba.wm.edu

## Sample Class Profile:

- Average GMAT: 620
- 80th Percentile Range: 530-700
- Average GPA: 3.3
- Average age: 27
- Average months work experience: 51
- Women: 30%
- International Students: 40%
- Average TOEFL: 100 (ibt)
- Countries Represented (Class of 2020): Japan, India, Mexico, Vietnam, Saudi Arabia, Spain, Taiwan, Thailand, Indonesia, Italy, Republic of Korea, Brazil, United Kingdom, Bahrain, Nepal, Bolivia, China

**Top Recruiters:** Companies that consistently recruit at W&M include: Amazon, LifeNet Health, Booz Allen Hamilton, Deloitte Consulting, IBM, Ernst & Young, Reckitt Benckiser, Smithfield Foods, JP Morgan, CBRE, Capital One, Bank of America, NVR, Ford, and Continental.

## Tuition

Full-time Graduate Business tuition rates for the 2019-2020 academic year are available at https://www.wm.edu/offices/financialoperations/sa/tuition/graduate/index.php . The Full-time MBA program offers financial assistance through scholarships, graduate assistantships and student loans. All candidates are automatically considered for merit-based scholarships and graduate assistantships at the time of admission. The cost of room, board, a laptop, books and supplies will vary depending on individual needs.

## Graduate Assistantships

Graduate assistantships are the primary form of aid to second-year MBA students. The selection for graduate assistantship positions is a competitive process that is based on academic performance and contributions to the program and community during the first year of MBA studies and the match between faculty or administrative needs and student skills and interests.

Raymond A. Mason School of Business graduate assistantship assignments typically include activities such as working in a research capacity with a Mason School of Business faculty member, serving as a tutor or resource for a first-year MBA course(s), and/or working with one of the administrative offices in the School. A modest research stipend accompanies most graduate assistantships. Assistantship assignments are made in most cases based upon a match between project needs and student skills and interests; the availability of positions is dependent upon funding, resource allocation and input from business school faculty and staff and may change from year to year. In all cases, assignments are made at the discretion of the Graduate Assistantship Committee.

Unless specified otherwise in the award notification, graduate assistantship positions are established for consecutive fall and spring semesters. Typically, two types of graduate assistantships are offered:

1. A 5-hour per week assistantship (or the equivalent of 75 hours per semester for each of the fall and spring semesters), which pays an annual stipend of $2,000 ($1,000 per semester.)
2. A 10-hour per week assistantship (or the equivalent of 150 hours per semester for each of the fall and spring semesters), which pays an annual stipend of $4,000 ($2,000 per semester.) Occasionally, a 10-hour assistantship assignment may include working with two faculty members, or in two assistantship roles, for 5 hours per week each. Students paying tuition at the out-of-state level may be permitted to pay tuition at the in-state rate if they earn a $4,000 assistantship stipend at the time of admission.

The assistantship assignment period includes fall, winter, and spring breaks; students may be required to work during breaks and should be prepared to do so if requested by their supervisor(s). Graduate assistants must be registered for 12 or more credit hours of graduate coursework per semester, with a minimum of 9 credit hours of graduate coursework in the Mason School of Business per semester. If a student's registration falls below the levels described above, s/he does not fulfill their assistantship hours or assignment(s), or s/he resigns his or her assistantship before the end of the term, the student's assistantship status and payment will be cancelled. Students receiving in-state tuition status as the result of an assistantship must complete the full year assignment in order to be eligible for in-state tuition status. Thus, the student will be required to pay out-of-state tuition charges (including retroactive payments if applicable) if their assistantship is cancelled.

During the course of a graduate assistantship, a student may have access to information that is confidential or protected by privacy laws. Disclosure to unauthorized parties is not permitted. When accessing this information, graduate assistants should only access the information needed to complete a specific, authorized task. By accepting a graduate assistantship position, the student acknowledges receipt of this warning and accepts the associated responsibilities.

## Flex Master of Business Administration

- Program Description
- Degree Requirements
- Academic Calendar
- Fact Sheet/Tuition
- Refund Policy

### Program Description

The William & Mary Flex MBA is the only part-time MBA program on the Peninsula designed specifically for the needs of the working professional who has to balance family, career, and education. This program is for the career-minded, working professional who wants it all but needs a defined path to reach their goal.

### Degree Requirements

## Flex MBA

### Total Number of Flex MBA Credit Hours: 54

### Phase I - Foundation Core (18 hours)

Phase I ***must*** be completed before taking electives (other than international trips).

**Semester I - Fall/Spring**

- BUAD 5103 - Financial Accounting (3)

- BUAD 5503 - Organizational Behavior (3)

**Semester II - Summer/Fall**

- BUAD 5013 - Communication for Managers (3)
- BUAD 5703 - Quantitative Methods (3)

**Semester II - Spring/Summer**

- BUAD 5403 - Marketing (3)
- BUAD 5723 - Managerial Economics (3)

### Phase II - Professional Core (16.5 hours)

**Semester IV - Fall/Spring**

- BUAD 5303 - Finance (3)
- BUAD 5603 - Operations Management (3)

**Semester V - Spring/Summer**

- BUAD 5223 - Management Information Systems (3)
- BUAD 5113 - Managerial Accounting (3)

**Semester VI - Summer/Fall**

- BUAD 5713 - Modeling & Simulation (1.5)
- BUAD 5943 - National & Global Economies (3)

### Phase III - Global Strategy and Electives (19.5 hours)

- BUAD 5903 - Global Competitive Strategy (3)
- Electives (16.5 hours)

## Academic Calendar

**2019 Fall Semester**

| **Fall 2019** | |
|---|---|
| August 12 | Non-Degree Registration Begins |
| August 17 | Flex MBA Orientation |
| August 26 | Classes Begin; Add/Drop Begins |
| September 2 | Labor Day (NO CLASS) |
| September 4 | Last Day to Add Classes |
| September 13 | Last Day to Drop Classes |
| October 1 | Notice of Candidacy Forms for May and August 2020 graduates due |
| October 12-15 | Fall Break |
| October 16 | Beginning of Part II- 1.5-credit courses |
| Varies | Last Day to Withdraw is before 60% of courses is completed |
| November 27- Dec 1 | Thanksgiving Holiday |
| December 9 | Last Day of Classes |
| December 10-16 | Examination Period |

**2020 Spring and Summer Semesters**

| **Spring 2020** | |
|---|---|
| January 2 | Fall Semester Grades Due (9am) |
| January 6 | Non-Degree Registration Begins |
| January 11 | Flex MBA Orientation |

| | |
|---|---|
| January 17 | January 2020 Degree Conferral |
| January 20 | Martin Luther King Holiday - No Classes |
| January 21 | Classes Begin; Add/Drop Begins |
| January 30 | Last Day to Add Classes |
| February 7 | Last Day to Drop Classes |
| March 7-15 | Spring Break - No Classes |
| March 17 | Beginning of Part II 1.5-credit Courses |
| Varies | Last Day to Withdraw is before 60% of courses is completed |
| May 4 | Last Day of Classes |
| May 5 - 11 | Examination Period |
| May 13 | Graduating students Spring Semester Grades Due (9am) |
| May 15-17 | Commencement |
| May 19 | Continuing student Spring Semester Grades Due (9am) |
| | |
| **Summer 2020** | **Session I** |
| May 4 | Non-Degree Registration |
| May 18 | Classes Begin; Add/Drop Begins |
| May 22 | Last Day to Add/Drop Classes |
| Varies | Last Day to Withdraw is before 60% of courses is completed |
| May 23 | Saturday Class for Monday/Wednesday and Monday Classes |
| May 25 | Memorial Day - No Classes |
| May 30 | Saturday Class for Tuesday/Thursday and Tuesday Classes |
| June 6 | Saturday Class for Monday/Wednesday and Wendesday Classes |
| June 13 | Saturday Class for Tuesday/Thursday and Thursday Classes |
| June 20 | Saturday Class for Monday/Wednesday and Monday Classes |
| June 25 | Last Day of Classes |
| July 1 | Summer Session I Grades Due (9am) |
| | |
| | **Session II** |
| June 15 | Non-Degree Registration |
| June 29 | Classes Begin; Add/Drop Begins |
| July 1 | Notice of Candidacy forms for January 2021 Graduates |
| July 3 | Last Day to Add/Drop Classes |
| July 4 | Independence Day - No Classes |
| Varies | Last Day to Withdraw is before 60% of courses is completed |
| July 11 | Saturday Class for Monday/Wednesday and Monday Classes |
| July 18 | Saturday Class for Tuesday/Thursday and Tuesday Classes |
| July 25 | Saturday Class for Monday/Wednesday and Wednesday Classes |
| August 1 | Saturday Class for Tuesday/Thursday and Thursday Classes |
| August 6 | Last Day of Classes |
| August 12 | Summer Session II Grades Due (9am) |
| TBD | Summer 2020 Degree Conferral Date |

**NOTE**: All dates are subject to change. Please refer to the program website for current calendar dates.

## Fact Sheet/Tuition

### Degree Earned
- Master of Business Administration

### Format
- Degree Completion Time - typically 3 years
- Flexibility- students may take up to 5 years to complete
- Attend classes on weeknights - 7:00 pm-10:00 pm. Each class meets one night per week during the Fall and Spring Semesters (Summer schedules vary), and most students take two classes per semester.
- Credits required for Flex MBA - 54

### Location
- William & Mary Peninsula Center- 41 Old Oyster Point, Suite F, Newport News, VA 23602

### Admission Requirements
- Application
- Transcripts
- Two Professional Letters of Recommendation
- GMAT or GRE
- 2 years Professional Experience

### Application Deadlines
- Fall Priority Deadline: June 1 ($100 app. fee waived)
- Spring Priority Deadline: Nov 1 ($100 app. fee waived)
- Rolling Admissions ($100 app. fee applies)

### Cost
- Graduate Business Tuition rates for the 2019-2020 academic year are available on at https://www.wm.edu/offices/financialoperations/sa/tuition/graduate/index.php

### Faculty
- Same award-winning professors who teach in our Full-time MBA, Executive MBA and Online MBA programs.

### Laptop Requirements
- Flex MBA students are required to have laptop computers running Microsoft Windows.

### Concentrations
The Flex MBA program offers two concentrations: Management of Engineering and Technology Development and Business Analytics. Flex MBA students may elect either concentration, which will be reflected on their transcripts. Each concentration will require that 12 credit hours of electives (out of the 16.5 credit hours of electives required in the Flex MBA curriculum), are to be taken from the following courses outlined below:

**Management of Engineering and Technology Development**
- BUAD 6601 - Management of Emerging Technologies (3)
- BUAD 6611 - Supply Chain Management (3)

- BUAD 6621 - Project Management (1.5-3)
- BUAD 6631 - Advanced Project Management (1.5)
- BUAD 6641 - Lean Toolkit (1.5)
- BUAD 6651 - Six Sigma Toolkit (1.5)
- BUAD 6671 - Lean Six Sigma Project (1.5)
- BUAD 6691 - Engineering Economic Analysis (3)
- BUAD 6591 - Predictive Analytics (3)

**Business Analytics**

- BUAD 6271 - Database Management (3)
- BUAD 6591 - Predictive Analytics (3)
- BUAD 6711 Advanced Modeling Techniques (3)
- BUAD 6951 - Business Research Seminar (0-6)

  **NOTE:** The course taken must be the BUAD 6951 - Business Research Seminar: Analytics Communications & Visualization.

## Refund Policy

**Refunds for Summer Semesters:** The chart below refers to the amount that can be refunded to a student for the **"Tuition and Other Program Fees"** portion of the overall cost of the Program. "Text Books and Supplies" and "Meals, Travel and Lodging" fees are non-refundable after the semester has begun.

| Class day | Percentage Refund |
|---|---|
| 1 | 80 |
| 2 | 70 |
| 3 | 60 |
| 4 | 50 |
| 5 | 40 |
| After semester day 6 | 0 |

## Executive Master of Business Administration

- Program Description
- Degree Requirements
- Fact Sheet/Tuition
- Team Guidelines
- Refund Policy

## Program Description

The William & Mary Executive MBA Program provides the rigor that is expected from a William & Mary education, the concierge-level service that our executive students need to thrive, and the depth of strategic knowledge that companies all over the world told us they require in today's marketplace. The streamlined curriculum allows for a quicker route to graduation without sacrificing a world class, transformative executive experience; an enhanced leadership focus that combines leadership-enhanced curriculum and full-scale executive coaching; distinct global business immersions that are seamlessly woven into the program to provide real-world international experience; and technology enhanced curriculum provides more work/life/school balance than ever before.

## Degree Requirements

## Executive MBA

### Total Number of Executive MBA Credit Hours: 47

#### First Semester
Attendance is required during the Domestic Residency period

- BUAD 5105 - Accounting - Reporting & Analysis (2.5)
- BUAD 5705 - Data Analysis (Part 1) (1.5)
- BUAD 5405 - Marketing Management (2.5)
- BUAD 5505 - Leadership in an Uncertain Era (2.5)

**Total Semester Hours: 9**

#### Second Semester
- BUAD 5015 - Communication for Executives (1.5)
- BUAD 5115 - Accounting for Decision Making & Control (2.5)
- BUAD 5715 - Data Analysis (Part 2) (2.5)
- BUAD 5725 - Managerial Economics & Public Policy (2.5)

**Total Semester Hours: 9**

#### Third Semester
- BUAD 5305 - Financial Management (2.5)
- BUAD 5425 - Marketing Strategy (2.5)
- BUAD 5605 - Operations & Supply Chain Mgmt (2.5)
- BUAD 5815 - Global Business Immersion (2.5)
- BUAD 5945 - Global Environment of Business (2.5)

**Total Semester Hours: 10**

#### Fourth Semester
Attendance is required during the Domestic Residency period

- BUAD 5215 - Managing Information Systems (2.5)
- BUAD 5325 - Corporate Financial Policy (2.5)
- BUAD 5515 - Leading Change in Organizations (2.5)
- BUAD 5805 - Ethical Accountability (1)
- BUAD 5905 - Strategic Management (2)

**Total Semester Hours: 9.5**

#### Fifth Semester
- Three Customized Electives
- BUAD 5815 - Global Business Immersion (2.5)

**Total Semester Hours: 9.5**

## Fact Sheet/Tuition
https://www.wm.edu/offices/financialoperations/sa/tuition/graduate/index.php
https://www.wm.edu/offices/financialoperations/sa/tuition/graduate/fall2019/index.php

## Length of Program
- 19 months (January start)

## Format
- Five semesters, classes held all day Friday and Saturday on alternating weekends. Two required domestic residency periods and two required international immersions.

## Designed For
- Our Executive MBA experience is designed for focused, hard-driving leaders who are positioned to move into senior executive and C-suite roles.

## Admissions Requirements
- Professional and managerial experience, application, transcripts, two professional letters of recommendation, and an admissions interview by invitation only. A quantitative online prerequisite is required of all admitted students prior to the beginning of the first domestic residency in January.

## Application Deadline
- Round One: June 1st
- Round Two: September 15th

## Class Profile
- Average age: 40
- Average Work Experience: 17 years
- Average GMAT: 550*
- Average Income: $109,000
- Male: 68%; Female: 32%
- Graduate Degrees: 21%

* Our Waiver Policy skews the average GMAT score down and thus this statistic is less representative of our student body.

## Example of Represented Companies
- United States Navy; SPAWAR Systems Center Atlantic; Cubic Applications, Inc.; United States Army Corps of Engineers; McKean Defense Group, LLC; The Language Group, LLC; Cox Media; Luna Innovations, Inc.; Smithfield Foods; Velley Investment Management; Hampton Roads Sanitation Department; Keystone Concepts, LLC; AstraZeneca; De;; Service Federal Government; AFSC; Naval Surface Force Atlantic; Smithfield Packaging Company; Owens & Minor Distribution, Inc.; University of Pennsylvania; Deloitte Consulting, LLP; United Buying Service; Middlesex County Public Schools; Department of Justice, Federal Bureau of Investigations; ClearPoint Financial Solutions; DaVita Healthcare Partners, Inc.; Delta Airport Consultants; First Potomac Realty Trust; United States Air Force; Leoni Fiber Optics; Buckstaff Public Safety; Dominion Virginia Power

## Program Cost $98,900

- Tablet Computer
- Tuition and Fees
- All Books, Cases, and Educational Materials
- Online Collaboration Software for Study Teams
- Tutors (1st and 2nd semester)
- Parking Fees
- Lodgings on Friday
- Lodging and Meals during required Domestic Residency Periods
- Lodging and Meals during required Global Immersions (Airfare for long-haul international flights is NOT included in program cost for required international residencies)
- Career Management Center
- Special Networking and Family Events
- Executive Partners Network
- William & Mary Campus Facilities

## Tuition Payment Schedule

- Upon acceptance: $4,500 (Non-refundable Deposit)
- Dec. 1: $19,780 (minus deposit)
- Apr. 1: $19,780
- Aug. 1: $19,780
- Jan. 1: $19,780
- Apr. 1: $19,780

Total: $98,900

## Contact

- Kimberly Mallory, Admissions Director, kim.mallory@mason.wm.edu, 757-221-2242
- Jana Allen-Bishop, Chief Recruiter, jana.allen@mason.wm.edu, 757-221-2356

## Team Guidelines

Designing and leading effective teams is an essential skill for executives, and therefore an integral component of the Executive MBA Program. Most of your learning of course material relies upon your active participation in assigned learning teams, and you will work in two different teams over the course of the program - the first team will cover semesters one through two or three, and the second team will cover semesters three or four and five.

To support your learning and your effectiveness as a team player, the program includes a series of team assessment and feedback activities. You will be asked to create a team contract, provide peer feedback to teammates mid-semester, complete a self-assessment of team skills, participate in a facilitated team feedback session, and to submit a revised version of your team contract. These activities are intended to raise your awareness of team processes and to increase your effectiveness as a team player. Team composition may change over the course of your program.

While it is very common for teams to experience growing pains and challenges as they develop an effective working style, occasionally issues arise that go beyond what should reasonably be expected and team performance is significantly impacted. If this happens, teams have several options.

The first step is for the team to address the problem on its own, using the revised team contract as a guideline for acceptable behavior and the first-semester facilitated team feedback sessions as a model for confronting unacceptable behavior. Teams should use this opportunity to renegotiate team contracts.

If members are unable to resolve problems on their own, the team should ask the Director to provide an External Facilitator to help the team resolve the problem. The External Facilitator will do an independent diagnosis of the problem and provide feedback to individuals and the team as a whole. On the basis of this feedback, members will be asked to submit individual personal development plans to the External Facilitator and Director detailing what steps they will take to address problematic behaviors and conform to agreed-upon acceptable behaviors.

If these steps are not successful, at the discretion of the Program Director, teams may disband entirely. Members of teams that disband will be reassigned to other teams by the Program Director. This measure will be considered as a last resort only.

## Refund Policy

### Initial Deposit: Nonrefundable

- If an individual does not attend the orientation program and cancels participation in the program, s/he will be considered 'dropped' from the College of William & Mary. The deposit will not be refunded, and "Tuition and Other Program Fees" will follow the refund schedule below.
- If a student completes orientation, begins classes, and then discontinues in the Executive MBA Program, they will be considered 'withdrawn' from the College of William & Mary. The deposit will not be refunded, and "Tuition and Other Program Fees" will follow the refund schedule below.
- Attendance is required for all elements of the program and no fees are transferable or refundable. If a student is unable to attend a part of the program, he or she must meet with the Associate Dean and no refunds will be granted.

**Refunds for Fall and Spring Academic Semesters**: The chart below refers to the amount that can be refunded to a student for the **"Tuition and Other Program Fees"** portion of the overall cost of the Program. "Textbooks and Supplies" and "Meals, Travel and Lodging" fees are non-refundable after the semester has begun.

| **Class Day** | **Percentage Refund after operating cost deduction** |
|---|---|
| Before classes begin | 100 |
| 1 | 80 |
| 2 | 80 |
| 3 | 80 |
| 4 | 80 |
| 5 | 80 |
| 6 | 80 |
| 7 | 70 |
| 8 | 60 |
| 9 | 50 |
| 10 | 40 |
| After semester day 11 | 0 |

**Refunds for Summer Semesters:** The chart below refers to the amount that can be refunded to a student for the **"Tuition and Other Program Fees"** portion of the overall cost of the Program. "Text Books and Supplies" and "Meals,Travel and Lodging" fees are non-refundable after the semester has begun.

| Class day | Percentage Refund |
|---|---|
| 1 | 80 |
| 2 | 70 |
| 3 | 60 |
| 4 | 50 |
| 5 | 40 |
| After semester day 6 | 0 |

## Online Master of Business Administration



### Program Description

To achieve success in today's rapidly changing times, leaders need to transform complex problems into opportunities. Our AACSB-accredited Online MBA prepares you with the critical thinking skills necessary to tackle today's business challenges and the innovative perspective needed to design tomorrow's solutions. The Online MBA blends the best of William & Mary - a Public Ivy education, world-class faculty, small classes, and a global community of peers - with a program designed exclusively for online students. Connect to community that extends far beyond the classroom to grow your network. The online learning environment - which is always accessible through our custom mobile app and online course room - is designed to deliver the flexibility you need to accommodate the other demands of your life.

### Degree Requirements

### Online MBA

### Credits required for Online MBA - 49

Degree Completion Time - 2 years

#### First Year Online MBA Courses

- BUAD 5017 - Renaissance Manager (4)
- BUAD 5107 - Accounting (4)
- BUAD 5507 - Organizational Behavior (4)
- BUAD 5707 - Business Analytics (4)
- BUAD 5607 - Operations (4)
- BUAD 5947 - Global Managerial Economics (4)

#### Second Year Online MBA Courses

A one (1) credit on-campus residency experience is required.

- BUAD 5407 - Marketing (4)
- BUAD 5227 - Integrated Technology (4)
- BUAD 5517 - Leadership in the 21st Century (4)
- BUAD 5907 - Strategy (4)
- BUAD 5307 - Finance (4)
- BUAD 5967 - Revolutionary Leader Practicum (4)

**Residency Requirement**
Online residency requirement to be completed in either year 1 or year 2.

- BUAD 5007 - Online MBA Residency (0 - 1)

## Academic Calendar

| **Fall 2019** | |
|---|---|
| July 29 | Orientation Begins |
| August 26 | Class "A" Begins |
| September 1; 11:59p | Add/Drop Period Ends, 100% tuition adjustment |
| September 2 | Labor Day, Offices Closed |
| September 25 | Last Day to Withdraw, WD on transcript |
| October 16 | Class "A" Ends, Final Deliverable Due |
| | |
| October 25-27 | OMBA Residency |
| | |
| October 28 | Class "B" Begins |
| November 3; 11:59pm | Add/Drop Period Ends, 100% tuition adjustment |
| November 27 | Last Day to Withdraw, WD on transcript |
| November 27-29 | Thanksgiving, Offices Closed |
| December 18 | Class "B" Ends, Final Deliverable Due |
| December 25 @ 9a | Grades Due by Faculty |
| | |
| **Spring 2020** | |
| November 25 | Orientation Begins |
| December 24-January 1 | Holiday Break, W&M Offices Closed |
| January 6 | Class "A" Begins |
| January 12; 11:59p | Add/Drop Period Ends, 100% tuition adjustment |
| February 5 | Last Day to Withdraw, WD on transcript |
| February 26 | Class "A" Ends, Final Deliverable Due |
| March 4 @ 9a | Grades Due by Faculty |
| | |
| March 2 | Class "B" Begins |
| March 8; 11:59p | Add/Drop Deadline, 100% tuition adjustment |
| April 1 | Last Day to Withdraw, WD on transcript |
| April 22 | Class "B" Ends, Final Deliverable Due |

| | |
|---|---|
| April 29 @ 9a | Grades Due by Faculty |
| | |
| February 28 - March 1 | OMBA Residency |
| | |
| **Summer 2019** | |
| April 6 | Orientation Begins |
| May 4 | Class "A" Begins |
| May 10; 11:59p | Add/Drop Deadline, 100% tuition adjustment |
| June 3 | Last Day to Withdraw, WD on transcript |
| June 24 | Class "A" Ends, Final Deliverable Due |
| July 4 | Independence Day, Offices Closed |
| July 1 @ 9a | Grades Due by Faculty |
| | |
| June 29 | Class "B" Begins |
| July 5; 11:59p | Add/Drop Deadline, 100% tuition adjustment |
| July 29 | Last Day to Withdraw, WD on transcript |
| August 19 | Class "B" Ends, Final Deliverable Due |
| August 26 @ 9a | Grades Due by Faculty |

**NOTE**: All dates are subject to change. Please refer to the program website for current calendar dates.

## Format:

Degree Completion Time - 2 years

Credits required for Online MBA - 49

Students are required to have a computer with internet access and a webcam.

## Fact Sheet/Tuition

The Online MBA program is a part-time program designed for busy working professionals. Students take two 7.5 week classes in the fall, spring and summer semesters. Twelve (4) credit classes and one on-campus residency are required for a total of 49 credits. The program is designed to be completed in two years. Classes are asynchronous and are accessible by web or mobile application.

## Admissions Requirements:

William & Mary seeks dynamic and driven applicants, professionals who are looking to push the boundaries of expectation. Our students challenge the status quo. They find opportunity in uncertainty. They are ready make a difference and redefine what it means to be a leader. Applicants are accepted from a wide range of academic fields and professional disciplines, but are required to have:

1. A minimum of two years of work experience
2. A Bachelor's degree or equivalent from a regionally accredited college or university

## Application Deadlines:

Visit Online MBA Admissions at https://online.mason.wm.edu/ for more information.

## Online MBA Tuition & Fees

Please visit the William & Mary Student Accounts website at https://www.wm.edu/admission/financialaid/tuition/ for information about Online MBA tuition and fees.

## Master of Accounting (MAcc)



### Program Description

The two-semester Master of Accounting (MAcc) program prepares students of varied backgrounds for careers in public accounting professional/financial services, corporate accounting, not for profits, and university teaching and research. Students have the option of graduating with a general degree or to include an emphasis in one of the following areas: Accounting Analytics, Audit & Assurance, Experiential, Taxation, or Valuation & Advisory Services. Students interested in pursuing a Ph.D. have the option to take part in the Ph.D. Preparation Program.

### Degree Requirements

## Master of Accounting, MAcc

The Raymond A. Mason School of Business offers a one-year, full-time program leading to the degree of Master of Accounting (MAcc). In order to earn the MAcc degree, students must satisfactorily complete thirty (30) credit hours of approved graduate coursework comprised of core/required courses and electives.

This program is designed for each student to complete required core coursework in the Fall semester. In the Spring semester, students have the flexibility choose electives from a broad list of offerings, or specialize by completing an optional Emphasis. Areas of emphasis include: Academic, Audit & Assurance, Experiential, Taxation or Valuation & Advisory Services.

***Note:*** The process of having coursework approved for the W&M MAcc degree is separate from having coursework approved to satisfy the educational requirements that Virginia and other states have set for eligibility to obtain the CPA license. Students need to contact their respective Board of Accountancy for the requirements to sit for the CPA exam.

### Fall Semester

Core courses (16 credits)

- BUAD 5029 - Accounting for Complex Financial Transactions Fall (3)
- BUAD 5079 - Financial Instruments & Derivatives Fall (2)
- BUAD 5049 - Valuation & Fair Value Accounting (2)
- BUAD 6199 - Advanced Auditing & Audit Research Fall (3)

- BUAD 5069 - Business Skills for Professional Accountants Fall (2)
- BUAD 6269 - Advanced Federal Taxation (3)
  Note: Students pursing the Academic Emphasis take the following courses in place of either BUAD 6199 or BUAD 6269
- BUAD 6329 - Introduction to Academic Research in Accounting (1)
- BUAD 6339 - Data and Analysis in Accounting Research (1)
- BUAD 6349 - Design of Accounting Research Studies (1)
  Optional Elective: BUAD 6951 - BRS - DC Financial Markets Trek (1)

**Total Fall Semester Credits: 16-17**

## Spring Semester

MAcc Elective Courses: Students who participate in the Fall semester BUAD 6951 - BRS - DC Financial Markets Trek choose a minimum of 12 credits of electives, otherwise choose a minimum of 13 credits.

Other MBA or Law School electives may be taken and counted toward the MAcc degree requirements with the approval of the Chair of the Accounting Department. Such electives vary year-to-year based on availability, and may be restricted based on demonstrated prerequisite coursework.

- BUAD 5039 - Current Issues in IT & Accounting Analytics (Sprint) Spring (1) Require Core Course
- BUAD 6129 - Integrated Winter Field Experience Spring (4)
- BUAD 6149 - Driving Organizational Performance Spring (3)
- BUAD 6159 - Taxation & Business Strategy Spring (3)
- BUAD 6169 - Business Law Spring (3)
- BUAD 6189 - Estate & Financial Planning Spring (3)
- BUAD 6209 - Govt & Non-profit Accounting Spring (3)
- BUAD 6229 - Financial Statement Analysis Spring (3)
- BUAD 6239 - Audit Analytics & Information Systems Spring (3)
- BUAD 6249 - Data Analysis & Simulation for Accountants Spring (3)
- BUAD 6279 - Forensic Accounting & Fraud Examination (3)
- BUAD 6289 - Taxation of Mergers & Acquisitions (3)
- BUAD 6299 - Partnership & LLC Taxation (3)
- BUAD 6359 - Current Research in Accounting (1)

**Total Spring Semester Credits: 13-14**

## Total Required Credits: 30

## Academic Calendar

**2019 Fall Calendar**

| | |
|---|---|
| August 19-21 | Required Orientation |
| August 26 | Beginning of classes for MAcc, Beginning of add/drop period (Monday) |
| September 2 | Labor Day - Classes in session (Monday) |
| September 4 | Last day to add/drop classes (Wednesday) |
| September 5 | Withdrawal period begins (full semester courses) |
| September 8-10 | DC Trek |
| October 1 | Notice of Candidacy forms due |

| | |
|---|---|
| October 12-15 | Fall Break (Saturday - Tuesday) |
| October 18 | End of 1st seven-week classes (includes exams) |
| October 21 | Beginning of 2nd seven-week classes |
| October 28 | Last day to withdraw (full semester courses) |
| November 27 - December 1 | Thanksgiving Holiday (Wednesday - Sunday) |
| December 9-13 | End of classes/exam period |

**2020 Spring Calendar**

| | |
|---|---|
| January 2 | Fall Semester Grades Due (Tuesday 9am) |
| January 2-March 6 | Integrated Winter Field Experience (if applicable) |
| January 20 | Martin Luther King Holiday - No Class (Monday) |
| January 21 | Beginning of classes for second semester MAcc (Tuesday) and beginning of Add/Drop period |
| January 27 | Withdrawal period begins (full semester courses) |
| March 6 | End of 1st seven-week classes |
| March 7-15 | Spring Break (Saturday-Sunday) |
| March 16-20 | Sprint Week |
| March 23 | Beginning of 2nd seven-week classes (Monday) |
| May 6 - 8 | Finals (tentative) |
| May 13 | Spring Semester Grades Due (Wednesday (9am) |
| May 16 | Commencement (Saturday) |

**NOTE**: All dates are subject to change. Please refer to the program website for current calendar dates.

## Fact Sheet

The MAcc program is designed for high-caliber students committed to achieving individual success by contributing their knowledge, integrity and skills to the business world. Problem-solving ability and intellectual acuity are fostered via teamwork with student colleagues as well as via extensive interaction with faculty and leading experts in the accounting field today.

**Website:** https://graduate.mason.wm.edu/master-of-accounting/

## Length of Program

Nine months with additional summer study sometimes required for students who have not completed the pre-requisite courses.

## Format

Full-time, two semesters; additional summer classes may be required for non-accounting undergraduate majors who have not completed the pre-requisite courses. Fall and Spring admission available. Spring admission is limited.

## MAcc Emphases

Enhance your career options by taking a deeper dive into a particular area of accounting by choosing an emphasis: Accounting Analytics, Audit & Assurance, Experiential, Taxation, or Valuation & Advisory Services. Students who choose to participate in the Integrated Winter Field Experience cannot choose another emphasis even if they meet the requirements for another emphasis. Any course with the prefix of BUAD 6951 are topics courses and change every semester.

**Accounting Analytics Emphasis** - Students who pursue this emphasis take 9 credits of the following:

Required courses (6 credits):
- BUAD 6239 - Audit Analytics & Information Systems
- BUAD 6249 - Data Analysis & Simulation for Accountants

Additional credits (3 credits):
- BUAD 6149 - Driving Organizational Performance
- BUAD 6229 - Financial Statement Analysis
- BUAD 6271 - Database Management
- BUAD 6711 - Advanced Modeling Techniques

**Audit & Assurance Emphasis** - Students who pursue this emphasis take 9 credits of advanced auditing courses.

Required course (3 credits):
- BUAD 6199 - Advanced Auditing & Audit Research

Additional courses (6 credits):
- BUAD 6209 - Govt & Non-profit Accounting
- BUAD 6229 - Financial Statement Analysis
- BUAD 6239 - Audit Analytics & Information Systems
- BUAD 6279 - Forensic Accounting & Fraud Examination

**Experiential Emphasis** - Students who pursue this emphasis must take 10 credits from qualifying courses, and secure an internship during the first half of spring semester. BUAD 6129 is taken simultaneously with the winter internship.

Required course (4 credits):
- BUAD 6129 - Integrated Winter Field Experience

Additional courses (6 credit):
- BUAD 6149 - Driving Organizational Performance
- BUAD 6169 - Business Law
- BUAD 6179 - Tax Research & Current Topics
- BUAD 6209 - Govt & Non-profit Accounting
- BUAD 6229 - Financial Statement Analysis
- BUAD 6239 - Audit Analytics & Information Systems

**Taxation Emphasis** - Students who pursue this emphasis take 9 credits of advanced taxation courses.

Required course (3 credits):
- BUAD 6269 - Advanced Federal Taxation

Additional courses (6 credits):
- BUAD 6159 - Taxation & Business Strategy
- BUAD 6179 - Tax Research & Current Topics
- BUAD 6189 - Estate & Financial Planning

Other Law School tax electives may be taken and counted toward the Taxation Emphasis with the approval of the Chair of the Accounting Department

**Valuation & Advisory Services Emphasis** - Students who pursue this emphasis must take 9 credits from qualifying courses.

Required course (3 credits):

- BUAD 5049 - Valuation & Fair Value Accounting

Additional courses (6 credits):

- BUAD 6149 - Driving Organizational Performance
- BUAD 6159 - Taxation & Business Strategy
- BUAD 6229 - Financial Statement Analysis
- BUAD 6249 - Data Analysis & Simulation for Accountants

Other electives may be taken and counted toward the Valuation & Advisory Services Emphasis with the approval of the Chair of the Accounting Department.

## Ph.D. Preparation Program

Students interested in pursuing a Ph.D. have the option to take part in the Ph.D. Preparation Program. Students in this program take the following 1 credit courses (for a total of 4 credits).

- BUAD 6329 - Introduction to Academic Research in Accounting
- BUAD 6339 - Data and Analysis in Accounting Research
- BUAD 6349 - Design of Accounting Research Studies
- BUAD 6359 - Current Research in Accounting

After completing these courses, students consult with accounting faculty to design a program of study that will prepare them for future Ph.D. studies.

## Admissions Requirements

The MAcc program is designed for individuals who want to work in the field of accounting. Please visit our website for more information on specific admissions requirements http://mason.wm.edu/programs/macc/admissions/index.php

## Prerequisites

Prior to enrollment into the MAcc program, coursework is required in: Principles of Accounting, Intermediate Accounting I and II, Auditing, Cost Accounting, and Introduction to (US) Federal Taxation. Applicants must receive a grade of C or higher in all prerequisites. These prerequisites may be completed during our summer bootcamp. Bootcamp courses carry extra fees and students will be billed for the applicable credit hours at the summer tuition rate. For more information on how to fulfill the MAcc prerequisites visit: http://mason.wm.edu/programs/macc/admissions/prerequisites/index.php

## Application deadlines

Rolling basis

## Tuition

Full-time Graduate Business Tuition rates for the 2019-2020 academic year are available on this site. The Full-time MAcc program offers limited financial assistance through scholarships. MAcc students may

also be eligible for student loans. The cost of room, board, a laptop, books and supplies will vary depending on individual needs. For information about financial aid, scholarships, or Graduate Assistantships, please see the section entitled "Student Financial Aid & Scholarships".

### The MBA-MAcc Combined Degree Program

MBA/MAcc candidates must meet the admission requirements for each program. Programs will share test score reports, recommendations and transcripts but applicants must file a separate application for In-State tuition privileges for each program.

The combined degree program requires 45 credit hours of coursework in the MBA program and 30 credit hours of coursework in the MAcc program. The MAcc and MBA degrees will both be awarded at the conclusion of both degrees. Students will participate in graduation at the end of the second year.

The MAcc program requires eight prerequisite courses for admission. Principles of Accounting, Statistics, Financial Management, and Cost Accounting are fulfilled by courses taken by all MBA students during the first-year curriculum. The remaining prerequisites -- Intermediate Accounting I and II, Auditing and Introduction to US Federal Taxation - may be taken as summer "bootcamp" intensive classes during either the summer preceding matriculation into the MBA program or the summer preceding matriculation into the MAcc program. These courses carry extra fees and students will be billed for the applicable credit hours at the summer tuition rate.

## Master of Science in Business Analytics (MSBA)



### Program Description

The MSBA program is designed to provide a deep-dive into analytic methodologies within the context of business applications. Specifically, our program will teach four key areas of business analytics: business acumen, applied mathematics, computing technologies and communicating with impact. These skills will allow you to ask the right business questions, build the right models, use those models to perform the right analyses, and tell the right story by interpreting and conveying the results with impact.

The MSBA program will require full-time enrollment for 30 credits of intensive coursework in business analytics over two semesters. The curriculum is highly progressive and structured with all students completing a plan of study where business context is taught first, followed by a deep dive into analytic applications and culminating with a capstone project where real business problems will be analyzed and solved.

The MSBA program is offered through Mason's Operations and Information Systems Management (OISM) area. These OISM faculty members are uniquely trained in the techniques taught in business analytics programs at prominent institutions. Their fields include operations research, industrial engineering, business, and information technology. In addition, these faculty members have all been actively engaged in real-world applications of business analytics through their consulting activities.

### Degree Requirements

## Master of Science in Business Analytics (MSBA)

## Ten-month Curriculum

Our intensive ten-month curriculum will teach students the requisite analytic skills, such as machine learning and artificial intelligence needed to work with big data sets and to solve complex problems from multiple perspectives. The curriculum provides a "book-end" approach where business context is taught first, followed by intensive analytic methodology coursework, and ending with a final business application capstone project. Interwoven in each course in the program will be assignments which will require students to analyze data and present it in at least one of the common modalities used in business including verbal communication with presentation software such as PowerPoint or by written communication such as white papers, memos, and reports.

**Business Foundation Course (3 credits)**

- BUAD 5012 - Competing Through Business Analytics (3)

**Analytics Methodology Courses (24 credits)**

- BUAD 5022 - Optimization (3)
- BUAD 5032 - Intermediate Probability & Statistics (3)
- BUAD 5042 - Heuristic Algorithms (1.5)
- BUAD 5072 - Machine Learning I (3)
- BUAD 5082 - Machine Learning II (3)
- BUAD 5272 - Database Management (3)
- BUAD 5722 - Big Data (3)
- BUAD 5732 - Data Visualization (1.5)
- BUAD 5742 - Artificial Intelligence (3)

**Capstone Course (3 credits**)

- BUAD 5792 - Business Analytics Capstone (3)

## Academic Calendar

This schedule is tentative and subject to change. The MSBA program is a ten-month, face-to-face, residential program that is taught on-site at the Mason School of Business in Miller Hall by faculty in the Operations Information Systems and Management (OISM) area.

| **2019** | **FALL SEMESTER** |
|---|---|
| August 22-23 | Required Orientation |
| August 26 | Beginning of Classes for first semester MSBA (Monday) |
| September 2 | Labor Day - Classes in Session (Monday) |
| October 1 | Notice of Candidacy forms due (Tuesday) |
| October 12-15 | Fall Break (Saturday-Tuesday) |
| November 27- December 1 | Thanksgiving Holiday (Wednesday-Sunday) |
| December 9-13 | Final Projects/Exam (Monday - Friday) |
| **2020** | **SPRING SEMESTER** |
| January 2 | Fall Semester Grades Due (Wednesday, 9am) |
| January 20 | Martin Luther King Holiday - NO CLASS (Monday) |
| January 21 | Beginning of Classes for second semester MSBA (Tuesday) |
| March 7-15 | Spring Break (Saturday-Sunday) |
| May 11-12 | Capstone Project Presentations (Tentative) |

| | |
|---|---|
| May 8 | Spring Semester Grades Due (Wednesday, 9am) |
| May 11 | Commencement (Saturday) |

**Fact Sheet/Tuition**

The MSBA program consists of full-time enrollment of intensive coursework in business analytics over two semesters, with each semester's course load totaling 15 credits for a total of 30 credits. Students will complete a single plan of study together as a cohort.

Students will emerge from this program with the requisite analytic skills, such as machine learning and artificial intelligence, needed to work with big data sets and to solve complex problems from multiple perspectives. This curriculum is highly structured and the courses are specific to business analytics. The foundation course, "Competing Through Business Analytics" will introduce students to the context of business, including familiarity with the functions of companies, key concepts, and the basic language of business. Next, coursework in Analytic Methodologies will provide a comprehensive coverage of important analytics tools. Examples, problems, and projects in each course will be introduced in a business context to further develop business acumen. Areas of application include web analytics, social media analytics, customer behavior, accounting/auditing, supply chain management, human resources, and finance. Additional courses in Analytic Methodologies will provide in-depth exposure to more advanced business analytics techniques such as working with big data, heuristic algorithms, data visualization and artificial intelligence.

The program will teach students how to effectively communicate insights from data clearly and succinctly such that the relevance and importance of the message being communicated is readily apparent to managers. Critical characteristics of communicating with impact in a business setting are describing insights comprehensively yet in a succinct fashion and also describing complex analytical results using non-technical managerial terminology. Course assignments will focus on these skills.

**Length of Program:**
One year (10 months)

**Format:**
Our intensive ten-month curriculum will teach students the requisite analytic skills to work with big data sets such as machine learning and artificial intelligence and to solve complex problems from multiple perspectives. The curriculum provides a "book-end" approach where business context is taught first, followed by intensive analytic methodology coursework, and ending with a final business application capstone project. Interwoven in each course in the program will be assignments which will require students to analyze data and present it in at least one of the common modalities used in business including verbal communication with presentation software such as PowerPoint or by written communication such as white papers, memos, and reports.

**Business Foundation Course (3 credits)**
BUAD 5012 - Competing Through Business Analytics (3)

**Analytics Methodology Courses (24 credits)**
BUAD 5022 - Optimization (3)
BUAD 5032 - Intermediate Probability & Statistics (3)
BUAD 5072 - Machine Learning I (3)
BUAD 5272 - Database Management (3)
BUAD 5722 - Big Data (3)

BUAD 5042 - Heuristic Algorithms (1.5)
BUAD 5732 - Data Visualization (1.5)
BUAD 5082 - Machine Learning II (3)
BUAD 5742 - Artificial Intelligence (3)

**Capstone Course (3 credits)**
BUAD 5792 - Business Analytics Capstone (3)

The program will end with a business analytics capstone project in which students will apply the tools they have learned in the program to projects hosted by companies. Each project team will define and frame a complex problem from a real business entity, develop a systematic approach to solving it using analytics, generate an innovative solution and persuasively convey that solution using data visualization techniques and communication skills. Multiple projects will be offered focusing on a variety of business contexts which will allow students to find a project topic that aligns with personal interest or background. Each project will be supervised by a faculty member and will provide students with a deep understanding of the techniques which have been studied throughout the program.

**Admissions Requirements:**
The MSBA program is designed for individuals who want to work in the field of data science and big data. This field requires extensive academic training so our best candidates will be those with strong quantitative skills, an inquisitive mind, good communication skills and a successful undergraduate track record with heavy course work in subjects such as: mathematics, statistics, computer science, business and economics.

Please see our website for more information on specific admission requirements:
http://mason.wm.edu/programs/msba/admissions/requirements/index.php

**Prerequisites**:
Prior to enrollment into the MSBA program, coursework and experience in probability, statistics, R and Python programming is required. Also, for non-business undergraduate majors, prerequisite courses are required that show a foundational understanding of business, namely Finance, Financial Accounting, Marketing and Operations Management. For more detail on how to fulfill the MSBA prerequisites, please see this link: http://mason.wm.edu/programs/msba/admissions/prerequisites/index.php

### Tuition
Full-time Graduate Business Tuition rates for the 2019-2020 academic year are available on this site. The Full-time MSBA program offers limited financial assistance through scholarships. MSBA students may also be eligible for student loans. The cost of room, board, a laptop, books and supplies will vary depending on individual needs.

For information about financial aid, scholarships, or Graduate Assistantships, please see the section entitled "Student Financial Aid & Scholarships".

## Online Master of Science in Business Analytics

- Program Description
- Degree Requirements
- Academic Calendar
- Format

- Fact Sheet/Tuition

## Program Description

The Online MSBA (OMSBA) program's design provides technical competence in applying analytic methodologies to business problems. In addition to technical competence in mathematical modeling and computing technologies, the program includes content in competencies that businesses require: business acumen and communicating with impact. These skills permit graduates to ask the right business questions, build the right models, use those models to perform the right analyses, and communicate clearly the results of complex analyses.

The OMSBA program is a part-time program comprising 32 credits over four semesters and 8 credit hours of pre-requisite foundational coursework. Foundational pre-requisites can be waived pending approval of prior academic experience. The courses in the curriculum build upon one another where technical foundations and business acumen are the first focus. The subsequent courses provide an in-depth coverage of analytic methodologies and, finally, culminate with a capstone project where students' apply their new skills.

The OMSBA program is offered through Mason's Operations and Information Systems Management (OISM) area. These OISM faculty members are uniquely trained in the techniques taught in business analytics programs at prominent institutions, including Stanford University, University of Michigan, Michigan State University, Dartmouth and Pennsylvania State University. Their fields include operations research, industrial engineering, computer science, business, and information technology. In addition, these faculty members have all been actively engaged in real-world applications of business analytics through their consulting activities.

## Degree Requirements

## Online MSBA

### Credits required for Online MSBA - 32

Degree Completion Time - 4 Semesters

#### Prerequisite Online MSBA Courses

- BUAD 502A - Probability and Statistics I (3)
- BUAD 502B - R Programming (1)
- BUAD 502C - Python Programming (1)
- BUAD 502D - Linear Algebra for Business Analytics (3)

#### First Semester Online MSBA Courses

- BUAD 5112 - Competing through Business Analytics (4)
- BUAD 5772 - Database Management and Visualization (4)

#### Second Semester Online MSBA Courses

- BUAD 5122 - Machine Learning I (4)
- BUAD 5052 - Probability and Statistics for Business Analytics (4)
- BUAD 5092 - Optimization and Heuristics (4)

#### Third Semester Online MSBA Courses

- BUAD 5762 - Capstone Project (4)

**Fourth Semester Online MSBA Courses**

- BUAD 5132 - Machine Learning II (4)
- BUAD 5802 - Artificial Intelligence (4)

## Academic Calendar

| **Fall 2019** | |
|---|---|
| July 29 | Orientation Begins |
| August 26 | Class "A" Begins |
| September 1; 11:59p | Add/Drop Period Ends, 100% tuition adjustment |
| September 2 | Labor Day, Offices Closed |
| September 25 | Last Day to Withdraw, WD on transcript |
| October 16 | Class "A" Ends, Final Deliverable Due |
| | |
| October 28 | Class "B" Begins |
| November 3; 11:59p | Add/Drop Period Ends, 100% tuition adjustment |
| November 27 | Last Day to Withdraw, WD on transcript |
| November 27-29 | Thanksgiving, Offices Closed |
| December 18 | Class "B" Ends, Final Deliverable Due |
| December 25 @ 9a | Grades Due by Faculty |
| | |
| **Spring 2020** | |
| November 25 | Orientation Begins |
| December 24-January 1 | Holiday Break, W&M Offices Closed |
| January 6 | Class "A" Begins |
| January 12; 11:59p | Add/Drop Period Ends, 100% tuition adjustment |
| February 5 | Last Day to Withdraw, WD on transcript |
| February 26 | Class "A" Ends, Final Deliverable Due |
| March 4 | Grades Due by Faculty |
| | |
| March 2 | Class "B" Begins |
| March 8; 11:59p | Add/Drop Deadline, 100% tuition adjustment |
| April 1 | Last Day to Withdraw, WD on transcript |
| April 22 | Class "B" Ends, Final Deliverable Due |
| April 29 @ 9a | Grades Due by Faculty |
| | |
| **Summer 2020** | |
| April 6 | Orientation Begins |
| May 4 | Class "A" Begins |
| May 10; 11:59p | Add/Drop Deadline, 100% tuition adjustment |
| June 3 | Last Day to Withdraw, WD on transcript |
| June 24 | Class "A" Ends, Final Deliverable Due |
| July 4 | Independence Day, Offices Closed |
| July 1 @ 9a | Grades Due by Faculty |

| | |
|---|---|
| June 29 | Class "B" Begins |
| July 5; 11:59p | Add/Drop Deadline, 100% tuition adjustment |
| July 29 | Last Day to Withdraw, WD on transcript |
| August 19 | Class "B" Ends, Final Deliverable Due |
| August 26 @ 9a | Grades Due by Faculty |

**NOTE**: All dates are subject to change. Please refer to the program website for current calendar dates.

## Format:

Degree Completion Time - 4 semesters of core classes

Credits required for Online MSBA - 32

Students are required to have a pre-configured computer to support the software requirements of the program in addition to internet access and a webcam.

## Fact Sheet/Tuition

The OMSBA program is a part-time program comprising 32 credits over four semesters and 8 credit hours of pre-requisite foundational coursework. Foundational pre-requisites can be waived pending approval of prior academic experience. The core courses are designed to be completed in 4 semesters. Classes are asynchronous and are accessible by web or mobile application.

## Admissions Requirements:

Designed for both career advancers and career changers, the Online Master of Science in Business Analytics (OMSBA) program at William & Mary helps develop a student's ability to derive insights from data and to situate those insights for an organization's bottom line.

Because of this rigorous emphasis, our Online Admissions Team looks for prospective students who have a strong analytical aptitude and firm quantitative background, so they are better able to achieve success and benefit from our robust curriculum.

To prove your readiness for the program, all applicants must demonstrate business acumen for the program in any of the following ways:

- Possess two years of relevant professional work experience
- Successfully complete a prior undergraduate or graduate program in business or coursework in corporate finance, accounting, marketing and operations
- Successfully complete the following Coursera.org courses, including those from the Wharton School at the University of Pennsylvania with certification:
    - Introduction to Corporate Finance
    - Introduction to Financial Accounting
    - Introduction to Marketing
    - Introduction to Operations Management

Domestic applicants may also demonstrate their quantitative competency in the above ways or by submitting GRE or GMAT test scores. While only recommended for domestic candidates with an undergraduate GPA below 3.25 (on a 4.0 scale), if your academic background lacks a strong quantitative foundation, candidates may also benefit from submitting a score that can indicate a strong quantitative affinity.

However, GRE/GMAT scores are required of all international applicants. For a more individualized recommendation, please contact an Admissions Advisor at 877-212-7180.

Visit Online MSBA Admissions website at https://online.mason.wm.edu/ for deadlines and to learn more information.

### Online MSBA Tuition & Fees

Please visit the William & Mary Student Accounts website for information about Online MSBA tuition and fees.

## Mason Combined Degrees and Dual Degree

- MBA/Master of Accounting
- MBA/MSBA
- JD/MBA Program
- MBA/MED
- MBA/EDD or PHD
- MD/MBA Program

The Raymond A. Mason School of Business at William & Mary combined degree options offer the flexibility to earn an MBA and an advanced degree in another specialized field.

Tailored to students' professional interests and career aspirations, these combined degree programs leverage our impressive cross-campus resources in the areas of law and public policy to create the JD/MBA and MBA/MPP options. The Raymond A. Mason School of Business also offers a combined MBA/MAcc degree. The collaborative approach to offering these programs emphasizes our commitment to providing a variety of ways in which students can customize their William & Mary MBA experience.

Admission to all combined degree programs requires that the applicant gain admission to both the Mason School of Business and the participating combined degree program through each school's regular admissions process.

## Combined and Dual Degrees Offered

### MBA/Master of Accounting

William & Mary's Mason School of Business offers a MBA/MAcc option in which students may obtain both the MBA degree and the Master of Accounting (MAcc) degree in 2 ½ years, instead of the three years that would be required if each degree were pursued independently.

The program is designed especially for non-accounting majors who intend to seek the CPA credential as part of their professional preparation. The combined degree program provides a student with both the comprehensive accounting education needed to qualify to sit for the licensing exam and a broad-based, well-rounded business education. This combined degree program requires separate application and acceptance to each program. Once all courses of study are completed in both the MBA and MAcc Programs, the combined degree MBA/MAcc degrees will be conferred.

### MBA/MSBA

William & Mary's Mason School of Business offers a MBA/MBSA option in which students may obtain both the MBA degree and the Master of Science in Business Analytics degree in 2 years plus summers, instead of the three years that would be required if each degree were pursued independently.

The program is designed especially for students who want to gain the general management business acumen from the MBA degree as well as specialized skills in analytics to solve complex problems. The combined degree program provides a student with both the comprehensive advanced analytical methodologies and a broad-based, well-rounded business education. This combined degree program requires separate application and acceptance to each program. Once all courses of study are completed in both the MBA and MSBA Programs, the combined degree.

## JD/MBA Program

A combined JD/MBA program is offered in conjunction with the William & Mary Law School, which will permit students to complete both degree requirements in four academic years. Candidates must meet the admission requirements for each program with separate applications to each school. A candidate admitted to each program may begin study in either school with the regular first year full-time curriculum. By the third year, the student will complete the first year curriculum in the other program.

In the third and fourth years, the candidate may register for both law and business classes. We strongly recommend that students develop a plan of study in conjunction with the Raymond A. Mason School of Business and the William & Mary Law School before selecting courses for the 3rd year. Students must schedule an advising appointment with the MBA Program Director prior to registering for second year courses. Course work in the William & Mary Law School will be disregarded in computing Raymond A. Mason School of Business class standing and determining eligibility for academic honors and awards.

A student who meets all other degree requirements and has completed 48.5 hours of course work in approved Business and related courses will be eligible for the MBA degree upon certification from the Graduate Registrar and from the office of the Dean of the William & Mary Law School when the student has completed all JD program requirements. Both degrees will be awarded concurrently. If a student begins the combined degree program but after partial completion wishes to withdraw from the combined program and complete only a business degree, the student must meet all full-time program requirements described in this catalog.

Combined Degree (JD/MBA, MBA/MPP) students must complete the entire first year full-time MBA curriculum, and the equivalent of half of the second year requirements for a total of 48.5 credit hours to earn the MBA to be conferred simultaneously with the combined program. Second year required courses include a Global Competitive Strategy course and 12.0 hours of electives.

## MBA/MED in Higher Education Administration

The combined MBA - Master's of Business Administration with the M.Ed. in Higher Education Administration is a combined educational leadership and business program that allows students to obtain both a M.B.A. and a M.Ed. degree in three years, instead of the four years that would be required if each were pursued separately. Candidates interested in this combined degree program must apply to and gain acceptance by both the Raymond A. Mason School of Business and Graduate School of Education.

## MBA/EDD or PHD in Higher Education Administration

The combined MBA - Master's of Business Administration with the School of Education is a combined educational leadership and business program that allows students to obtain both M.B.A. and Ed.D. or Ph.D. degree in five years, instead of the six years that would be required if each were pursued separately.

Candidates interested in this combined degree program must apply to and gain acceptance by both the Raymond A. Mason School of Business and Graduate School of Education.

### MD/MBA Dual Degree Program

Eastern Virginia Medical School (EVMS) students have an extraordinary opportunity to earn a William & Mary MBA degree between their 3rd and 4th years of medical school. The strategic-level leadership and management skills of the MBA degree will couple with the highly credible clinical MD degree to provide an educational credential that will highly differentiate medical students in the marketplace as physician leaders. Whether working as hospitalists for a large medical center, in research labs, or in private practices, high performing physicians today must be versed in business management principles in order to fully understand the interdependencies between providing quality health care and effectively managing the health organizations and systems in which they operate.

MD/MBA students will complete their first three years of medical school and begin their MBA curriculum following their Step 2 exams. The MBA curriculum is 48 semester hours and will be completed in four semesters over 12 months. Two consecutive semesters will be spent integrated with the Full-Time MBA students on William & Mary's main campus in Williamsburg. Two additional semesters will be taught at the William & Mary Flex MBA Peninsula Center in Newport News (Oyster Point).

The MBA curriculum at William & Mary includes an **integrated managerial approach** to business disciplines including finance, accounting, organizational behavior, operations management, economics, leadership and ethics, marketing and data analytics; **case-based learning** to build critical thinking and problem-solving skills; a strong **team environment** to promote effectiveness working in interdisciplinary environments; and a comprehensive applied project to be completed over the course of the MBA curriculum to provide real-world applicability.

For information regarding Eastern Virginia Medical School, contact:
Eastern Virginia Medical School (https://www.evms.edu/education/admissions/)
(757) 446-5812

## School of Business Course Descriptions

Refer to Course Descriptions section for a list and description of School of Business courses (**BUAD** prefix).

# School of Law

**William & Mary Law School**

613 South Henry St.
Williamsburg, Virginia 23185
(757) 221-3800
(757) 221-3261 (fax)
Website: **law.wm.edu**

Academic Calendar
Policies
Programs
Courses

**Learn More**

- The University
- Costs
- Law School At a Glance
- Faculty

## Law School At a Glance

Refer to https://law.wm.edu/about/factoids/index.php

## School of Law Costs

### Costs (2019-2020)

**Tuition and Fees for the JD**

- Tuition and fees (Virginia residents): $35,000
- Tuition and fees (nonresidents): $44,000

**Tuition and Fees for the JD/MBA**

- Pay tuition and fees at the Law School rate for two 1/2 years (five semesters).
- Pay tuition and fees at the Business School rate for one 1/2 years (three semesters) - typically the first three semesters of MBA study.

**Financial Assistance for the JD/MBA**

- If you're eligible, you can be considered for available scholarship funds at either school.
- If you're eligible, you can receive up to five semesters of Law School-administered aid.
- If you receive Law School scholarship funds or aid, they are not available during the three semesters you're paying tuition to the Business School.
- Educational loan applications are processed by the Office of Student Financial Aid for the College of William & Mary.

**Tuition and Fees for the JD/MA in American Studies**

- You will pay tuition and fees at the Law School rate for three years.
- You will pay tuition and fees at the Graduate Arts & Sciences rate for any remaining term needed to complete the M.A. degree.

**Financial Assistance for the JD/MA in American Studies**

- If you're eligible, you can be considered for available scholarship funds at either school.
- If you're eligible, you can receive up to three years of Law School-administered aid.

- If you receive Law School scholarship funds or aid, they are not available during the year you're paying tuition to the other program.
- Educational loan applications are processed by the Office of Student Financial Aid for the College of William & Mary.

## School of Law Faculty

### Full-Time Faculty

**Alces, Peter A.**, Rita Anne Rollins Professor of Law and Cabell Research Professor of Law

**Andrews, Elizabeth A.**, Professor of the Practice and Director, Virginia Coastal Policy Center

**Barzilay, Judith**, Professor of Practice in International Trade Law

**Bellin, Jeffrey**, University Professor for Teaching Excellence

**Boelzner, David E.**, Clinical Assistant Professor of Law

**Bruhl, Aaron-Andrew P.**, Professor of Law

**Butler, Jay**, Assistant Professor of Law

**Butler, Lynda L.**, Chancellor Professor of Law and Director, William and Mary Property Rights Project and Co-Chair, President's Committee on Sustainability

**Chason, Anna Perez**, Professor of the Practice

**Chason, Eric D.**, Associate Professor of Law and Director, William and Mary Tax Conference

**Combs, Nancy**, Ernest W. Goodrich Professor of Law, Kelly Professor of Teaching Excellence, and Director, Human Security Law Center

**Criddle, Evan J.**, Cabell Research Professor of Law

**Devins, Neal E.**, Sandra Day O'Connor Professor of Law, Professor of Government, and Director, Institute of Bill of Rights Law

**Douglas, Davison M.**, Dean and Arthur B. Hanson Professor of Law

**Dwyer, James**, Arthur B. Hanson Professor of Law and Cabell Research Professor of Law

**Franklin, Jennifer R.**, Professor of the Practice

**Gershowitz, Adam M.**, Associate Dean for Research and Faculty Development and Professor of Law

**Green, Michael S.**, Woodbridge Professor of Law and Cabell Research Professor of Law

**Greene, Rebecca**, Professor of the Practice; Co-Director, Election Law Program, Assistant Director, CLCT

**Grove, Tara Leigh**, Professor of Law

**Haeberle, Kevin S.**, Associate Professor of Law

**Hamilton, Vivian**, Professor of Law; Affiliated Professor, Gender, Sexuality, & Women's Studies

**Heller, James S.**, Professor of Law; Director, The Wolf Law Library

**Hendrickson, Erin Joy**, Professor of the Practice

**Heymann, Laura A.**, Professor of Law

**Ibrahim, Darian M.**, Tazewell Taylor Research Professor of Law

**Kades, Eric A.**, Thomas Jefferson Professor of Law

**Kaplan, Robert E.**, Associate Dean and Professor of the Practice

**Kern-Scheerer, Stacy Elizabeth**, Professor of the Practice

**Killinger, Laura R.**, Director, Legal Practice Program and Professor of the Practice

**Larsen, Allison Orr**, Robert E. and Elizabeth S. Scott Research Professor of Law

**Lederer, Fredric I.**, Chancellor Professor of Law and Director, CLCT

**Lowe, Mason Ernest**, Professor of the Practice

**Malone, Linda A.**, Marshall-Wythe Foundation Professor of Law, Founding Director of the Human Security Law Center and LLM in American Legal Studies

**Marcus, Paul**, Haynes Professor of Law

**McSweeney, Thomas J.**, Associate Professor of Law

**Meese, Alan J.**, Ball Professor of Law, and Co-Director, Center for the Study of Law and Markets

**Oman, Nathan B.**, Rollins Professor of Law

**Rajec, Sarah R. Wasserman**, Assistant Professor of Law

**W. Taylor Reveley, III**, President and John Stewart Bryan Professor of Jurisprudence

**Richardson, William M.**, Professor of the Practice

**Roberts, Patricia**, Vice Dean, Clinical Professor of Law, Director of Clinical Programs, and Co-Director of the Lewis B. Puller, Jr. Veterans Benefits Clinic

**Rosenberg, Ronald H.**, Associate Dean for Graduate Programs, Director, American Legal System Graduate Program & Foreign Exchanges, and Chancellor Professor of Law

**Shin, Crystal S.**, Clinical Assistant Professor

**Stafford, Sarah L.**, Director of the Thomas Jefferson Program in Public Policy and Professor of Economics, Public Policy and Law

**Stern, James Y.**, Associate Professor of Law

**Stevenson, Jennifer S.**, Assistant Dean for Graduate Programs, Associate Director, American Legal System Graduate Program, and Professor of the Practice of Law

**Ward, Cynthia V.**, Professor of Law

**Warren, Christie S.**, Professor of the Practice of International and Comparative Law and Director, Center for Comparative Legal Studies and Post-Conflict Peacebuilding

**Zick, Timothy**, Mills E. Godwin, Jr. Professor of Law

## School of Law Academic Calendar

| **Fall 2019** | |
|---|---|
| August 19 | Entering 1L Students begin Legal Practice Program |
| August 26 | Classes and add/drop begin |
| August 30 | Add/Drop ends |
| October 14-15 | Fall Break - no classes |
| November 27-29 | Thanksgiving Break - no classes |
| December 6 | Classes end |
| December 6-9 | Reading Period |
| December 9-14 | Exams - Week 1 |
| December 16-19 | Exams - Week 2 |
| December 23 - January 1 | Law School closed for Winter Holiday |
| January 13 | Fall Grades due by Noon |
| **Spring 2020** | |
| January 13 | Classes and add/drop begin |
| January 17 | Add/Drop ends |
| January 20 | Martin Luther King Day - No classes, Law School administrative offices closed |
| March 9-13 | Spring Break - no classes |
| April 24 | Classes end |
| April 24-27 | Reading Period |
| April 27 - May 2 | Exams - Week 1 |
| May 4-7 | Exams - Week 2 |
| May 13 | Grades due for 2Ls and Graduating Students by noon |

| | |
|---|---|
| May 16-17 | Commencement Weekend |
| May 29 | 1L grades due |

## School of Law Grading Policies

**How we grade**
In the first year, faculty may grade solely on examinations or may also consider class participation when assigning the final grade.

In upper-level elective and seminar courses, your academic work may be graded entirely by an exam or paper; or the professor may factor with the exam or paper grade, any of the following or combination of the following:

- in-course assignments
- quizzes
- classroom participation

If a professor bases the final grade in a course in whole or in part on written assignments other than "traditional" exams, these written assignments should be graded anonymously except where the assignment involves student-faculty interchange that in the faculty member's judgment makes anonymity for all students impossible. Professors must announce their grading practices during the add/drop period.

In clinical, externship and skills courses, how your grade is determined will be announced by the instructor prior to the end of add/drop. In most of these types of courses, your grade predominantly will be a matter of your participation and may include written work or an exam. Naturally, these courses will have an attendance requirement. If unable to meet the attendance requirement, you should consider dropping the course before the end of add/drop.

Since 2004, law faculty are required to adhere to a mandatory grade curve and in 2012, the law faculty modified the grading policy. You can find the new policy here . Only the Vice Dean can grant an exception to the policy and only then for good cause shown by the faculty member.

Once a student's degree has been conferred, the academic record is closed and it cannot be changed or amended.

**What types of grades are given**
Law grades in courses graded by standard letter grade have quality points from which your grade point average is determined:

"A+" (4.3) "A" (4.0), "A-" (3.7)
"B+" (3.3), "B" (3.0), "B-" (2.7)
"C+" (2.3), "C" (2.0), "C-" (1.7), "D" (1.0) and
"F" (fail -- 0 quality points that will factor into your grade point average, no credit is earned).

As an alternative to these standard letter grades, pass/fail grades may be used in certain Law School courses as approved by the Vice Dean or Associate Dean for Research and Faculty Development. The following four grades are available: "H" (honors), "P" (pass), "LP" (low pass), and "F" (fail). A grade of honors, pass, or low pass will not affect a student's grade point average but will count toward the total number of credits required for graduation. A grade of "fail" will affect a student's grade point average.

With the exception of courses in the Lawyering Skills courses, the number of honors grades cannot exceed 10.0% of enrolled students under any circumstance.

Absent a controlling language in a course description, instructors may select which grading system they use in a given course. If the course description does not specify a grading system and the instructor does not specify a grading system before the end of the add/drop period, Standard Letter grading will be used. If a course description or an instructor indicates that some form of pass-fail grading will be used, but does not use the exact phrase "Standard Pass-Fail" or "Extended Pass-Fail" or is otherwise ambiguous, Extended Pass-Fail grading will be used.

Other grades that have no effect on your grade point average may be on your transcript:

"T" (transfer credit from another institution -- students must request permission to "visit" another institution or an institution's abroad program and must seek approval to register in specific courses. To transfer, grades in approved credits must be a "C" or better and will come to the W&M transcript as a "P")

"NG" (no grade or credit earned - when a faculty member has not yet submitted your grade)

"I" (incomplete-can only be given with permission of the Associate Dean for Administration and is never given to a graduating student in the semester they are graduating)

"O" (audit-no credit earned)

You have the option to convert a non-required grade to a pass

You may not elect to take a regularly graded course pass/fail. You may only convert a grade earned (subject to the policy) to a "pass."

You may, if in good standing, elect to convert to a "pass" one course grade that was graded by a letter grade. This option is governed by the Grade Conversion Policy below.

You can request a faculty member to explain how you were graded

We do not have a means to appeal a grade.

We do encourage grade review.

**Grade Conversion Policy**
Grading Policy

1. A law student may not choose to take a regularly graded course pass/fail. The Law School permits only a grade conversion of an earned grade.

2. A JD law student may not convert a grade earned in any required class, including a course taken to meet the writing requirement.

3. The option to convert a grade must be exercised in the final semester of study (for JD seeking, typically the spring semester of the third year, for LLM seeking typically the second semester, or for third semester students their final semester.

JD seeking, the request for conversion should be submitted by the third week of the final semester to have the conversion included in the new semester class rank. If not submitted by the third week, the form must be submitted by either Nov 01 or Apr 01 of the final semester to cause a grade conversion.

LLM seeking, the request for conversion must be submitted by Nov 01 if student's final semester is fall, or by Apr 01 if student's final semester is spring.

4. The grade must have been earned:
   JD seeking, after the first year and before the final semester of law school.

   LLM seeking, during any semester at the Law School except the final semester of study. Note, for third semester LLM students, deadlines listed above in policy number 3 apply.

5. Once exercised, the conversion is irrevocable.

6. The option can only be exercised by submission of the **Grade Conversion Form** (see https://law.wm.edu/academics/whatabout/examsgradestranscripts/gradingpolicy/gradeconversion/form_gradeconversion_061417.pdf).

7. A "pass" is defined as a grade of "C" or higher.

8. In exercising this option, a student must adhere to any other restriction governing eligibility for earning pass-fail credits.

**Grade Conversion Policy**

1. A law student may not choose to take a regularly graded course pass/fail. The Law School permits only a grade conversion of an earned grade.

2. A JD law student may not convert a grade earned in any required class, including a course taken to meet the writing requirement.

3. The option to convert a grade must be exercised in the final semester of study (for JD seeking, typically the spring semester of the third year, for LLM seeking typically the second semester, or for third semester students their final semester.

   JD seeking, the request for conversion should be submitted by the third week of the final semester to have the conversion included in the new semester class rank. If not submitted by the third week, the form must be submitted by either Nov 01 or Apr 01 of the final semester to cause a grade conversion.

   LLM seeking, the request for conversion must be submitted by Nov 01 if student's final semester is fall, or by Apr 01 if student's final semester is spring.

4. The grade must have been earned:
   JD seeking, after the first year and before the final semester of law school.

   LLM seeking, during any semester at the Law School except the final semester of study. Note, for third semester LLM students, deadlines listed above in policy number 3 apply.

5. Once exercised, the conversion is irrevocable.

6. The option can only be exercised by submission of the **Grade Conversion Form**

7. A "pass" is defined as a grade of "C" or higher.

8. In exercising this option, a student must adhere to any other restriction governing eligibility for earning pass-fail credits.

## School of Law Programs

- Juris Doctor, JD
- Master of Laws, LL.M.

**Combined Degrees**

- Business (MBA)
- American Studies (MA)

## Juris Doctor, JD

The J.D. degree is the basic law degree. With a J.D. (and after passing a state Bar exam), you can be a lawyer, whether that involves practicing law, or working in business, or politics, or public service, or whatever you want.

The Law School's required courses, like Torts, Contracts, Property, and others, give you a solid foundation in law and the legal system. After that, the elective curriculum will let you build on that foundation by selecting courses from a wide range of legal specializations.

Students may choose to take courses in one of three academic concentrations. Concentrations indicate focused coursework and experiential learning or independent research in a particular area of study beyond the required curriculum. Students who successfully complete the concentration will receive a notation on their Law School transcripts. Additional information and requirements are available in the Law School's Policy on Academic Concentrations.

### Total Required Hours: 88

86 credit hours (of which 65 must be for a W&M Law letter grade). Additionally, the American Bar Association specifies that no more than 20 percent of the required credit hours may be taken in any one semester. At William & Mary, this means students may not take more than 17 credits in any one semester.

### Length of Program

This is a full-time program of legal education. As such, the American Bar Association specifies that it must be completed in no fewer than 24 months and no more than 84 months from the date of matriculation as a degree-seeking first-year law student.

### Courses Required

- In the first year: Civil Procedure, Constitutional Law, Contracts, Criminal Law, Property, Torts.
- Three semesters in the Legal Practice Program including the first-year courses: Legal Research & Writing I and II; Lawyering Skills I and II; and the second year course: Advanced Writing and Practice.
- In the second or third year: Professional Responsibility.

- One or more experiential courses totaling at least six credit hours. Three of these six credits are satisfied by the required Lawyering Skills I and II in the first year. Additional courses that satisfy the requirement include simulation courses, clinics, and externships.
- Students who have been identified, based on academic performance, as likely to benefit from additional bar exam preparation studies will be required to enroll in the Law School's Directed Reading in Advanced Legal Analysis and Doctrine during their third-year as a condition of graduation. The Dean's Office will be responsible for identifying and contacting such students and granting exceptions to the requirement, on a case-by-case basis for good cause.

### Required Writing Experiences

For students graduating in 2019 or later:

- In the first year: Legal Research & Writing I and II
- In the second year: Advanced Writing and Practice

### Graduate Employment Survey

You will not be certified to graduate without completing and updating the Survey (see https://law.wm.edu/academics/programs/jd/requirements/class-of-2019-grad-survey-requirement-for-degree.pdf).

### Note:

*Curricular requirements are subject to change.*

## Master of Laws, LL.M.

Our innovative LL.M. program is designed for foreign-educated students and attorneys who want to compete in an increasingly globalized legal world. We have been welcoming students from all over the world since 1989.

Our flexible start date allows students to begin in the fall or spring!

Our traditional two-semester, full-time program begins in the fall or spring semester and ends with graduation in mid-May or January. All students participate in a mandatory Law Week, which begins one week before the official start of the semester, and includes a series of classes about the American legal system as well as legal writing and research. Students are required to participate in all Law Week events.

Mandatory Law Week for the Fall Term: August 19-23, 2019. The required Legal Writing & Research (LW&R) course begins August 19 with classes held each day during Law Week. The normal LW&R course schedule will be in effect as of August 26, 2019 for the balance of the fall semester.

Mandatory Law Orientation for Spring Term: January 4, 2019.

Our three-semester, full-time LL.M. program allows students three semesters of coursework, including a specialization in a chosen legal field.

All admitted students will be considered for merit-based scholarships at the time of application.

Our LL.M. students create their own program of study by either choosing a broad survey of courses or focusing on one of our many practice areas, such as business law or environmental law. Unlike many LL.M. programs, our students take classes with their J.D. student colleagues. Many also take the coursework necessary to qualify them to sit for the New York State Bar or other Bar Examinations

## Credit Hours Required: 24

(or an additional 10 credits for a minimum total of 34 credit hours, if a student seeks the LL.M. degree with an Advanced Specialization.)

Students enrolling full-time must register for a minimum of 9 credits per semester and may not register for more than 17 credits in any one semester.

## Length of Program

This program must be completed within four consecutive semesters for students enrolling full-time (or six consecutive semesters for students enrolling full-time, if a student seeks the LL.M. with an Advanced Specialization). For students not enrolled full-time for good cause, the length of program will be decided in consultation with the Vice Dean.

## Courses Required

Although students may choose their own coursework, most LL.M. students choose to take first-year J.D. courses including Civil Procedure, Constitutional Law, Contracts, Criminal Law, Property, and Torts. Students who wish to sit for a state bar examination should review these requirements carefully and select courses that will meet the state's application requirements.

For the LL.M. Degree with Advanced Specialization, in addition to the course work described above, students will select courses from specific areas of law including business law, constitutional law, criminal law, intellectual property law, international law and justice, and methods of dispute resolution. In additional to the minimum 24 credits required for the LL.M. degree, an additional minimum of 10 credit hours must be taken in the area of specialization (for a minimum total of 34 credits). Students who meet these requirements will receive their LL.M. degree with a designation that they have an "Advanced Specialization" in a subject-matter area.

LL.M. degree candidates must earn a cumulative grade point average of 2.0 to earn the LL.M. Degree.

LL.M. Degree and must pass any pass-fail classes.

## Writing Requirement

Legal Research and Writing (2 credits) is a required course and should be taken in the first semester of the LL.M. program.

## Grading Policies

LL.M. students may elect, in any semester, to be graded on an Honors/Pass/Fail scale, rather than on a letter-grade scale, for all coursework in that semester. Such an election must be made by 4:00 p.m. on the last day of Add/Drop week in that semester and, once made, is irrevocable. The option must be exercised with respect to all coursework in a semester. Please find additional grading policy information in the Grading Policies section of the catalog.

LL.M. students who wish to avail themselves of the Honors/Pass/Fail grading option must communicate that intention by the end of the Add/Drop week by submitting a Grading Election Form to the Law School Registrar. If a form is not submitted by the deadline, the student will be subject to the standard grading scale in all courses that semester.

Courses that are offered to all students only on a Pass/Fail basis will not award Honors grades.

LL.M. students may also, pursuant to Law School policy, convert one grade in a course taken during any semester at the Law School except the final semester of study to a Pass/Fail grade. Students wishing to convert a grade must communicate that intention by submitting a Grade Conversion Form to the Law School Registrar during their final semester of study at the Law School. The deadline for submitting a Grade Conversion Form is November 1 if the final semester of study is the fall semester and April 1 if the final semester of study is the spring semester.

Students considering either of these grading options should be aware that eligibility for admission to a state bar, for admission to a J.D. or other educational program, for third-party funding, or for other programs may be affected by the number of courses taken for other than a letter grade.

Questions should be directed to Professor Jennifer Stevenson, Assistant Dean of Graduate Programs and Associate Director of the LL.M. Program.

## Combined Degrees

### J.D./M.B.A. Degree Program

#### Application

Apply and be admitted to each program. (Admission to one program will not affect admission to the other.)

- Apply to the Law School by March 1.
- Apply to the Graduate School of Business by May 1.

If you are initially accepted to both schools, you can start your program at either, but you must make the choice and inform both schools of your decision by May 15. Do so by contacting each school's Associate Dean or Director of Admissions.

You may also apply for a combined degree after you've become a law student. If you're accepted into the other program, then contact the Law School's Associate Dean of Administration and the other program's Director of Admission by May 15.

Contact us at https://law.wm.edu/academics/programs/jointdegrees/contact/index.php

#### Plan of Study

- Start at either program - during the first year of each, you'll only take courses in that program. You must complete the first year of one before you move to the other program.
- You'll take a combination of law and business courses in your final two years.
- If a course is cross-listed law/business, you must declare to which program the credits will belong at the time you register in the course. Under no circumstance may you move the course from law to business or business to law after the exam period for the term you are taking the course begins.
- If the course is not cross-listed please declare to the Law School registrar upon registration to which degree the course will belong.
- Regardless of where you are taking classes, you'll always retain the rights of a student at each school.

#### Degree Requirements

- Earn 75 law credits.

  - You may not apply non-law credit hours to your law degree.
  - 65 of your credits for graduation must be in William & Mary Law School courses graded by a letter grade (ie, A, B, C).
- Complete the first- and second-year Law School course requirements.
- Satisfy the Law School Major Paper Requirement.
- Earn a minimum cumulative law GPA of 2.0.
- Comply with all M.B.A. requirements:
  - 49.5 business hours
  - All other degree requirements
  - Earn a minimum cumulative GPA of 2.75.

### Tuition and Fees

- Pay tuition and fees at the Law School rate for two 1/2 years (five semesters).
- Pay tuition and fees at the Business School rate for one 1/2 years (three semesters) - typically the first three semesters of MBA study.

### Financial Assistance

- If you're eligible, you can be considered for available scholarship funds at either school.
- If you're eligible, you can receive up to five semesters of Law School-administered aid.
- If you receive Law School scholarship funds or aid, they are not available during the three semesters you're paying tuition to the Business School.
- Educational loan applications are processed by the Office of Student Financial Aid for the College of William & Mary.

## J.D./M.A. Degree Program

### Application

Apply and be admitted to each program (admission to one program will not affect admission to the other).

- Apply to the American Studies Program by January 15.
- Apply to the Law School by March 1.

Typically, students in the combined program are already William & Mary JD students at the time of application to the M.A. program. So, if you are accepted to the M.A. program and plan to attend, you will need to tell the Law School's Associate Dean of Administration by May 15. If you are accepted to the combined program simultaneously, inform the Admission Deans of both programs and you will begin the combined program at the Law School.

Contact us at https://law.wm.edu/academics/programs/jointdegrees/contact/index.php

### Plan of Study

- The first year is taken in the Law School. The first-year curriculum must be completed prior to beginning the other program.
- In the remaining two to three years, you will take courses in both programs. Typically, some of your elective law courses will complement the nature of your work in American Studies and your joint degree will be truly integrated in nature.

### Degree Requirements

- Earn 80 law credits.

    - 6 specified (AS 551 and one elective) non-law credit hours will be applied to the law degree.
    - 65 credits must be by a William & Mary Law School course graded by letter grade (i.e., A, B, C).
- Complete the first- and second-year Law School course requirements.
- Satisfy the Law School Major Paper Requirement.
- Earn a minimum cumulative law GPA of 2.0
- Comply with all M.A. in American Studies requirements
    - 24 M.A. hours
    - All other degree requirements including:
        - A thesis
        - AS 551 and 5 elective courses.

### Tuition and Fees

- You will pay tuition and fees at the Law School rate for three years.
- You will pay tuition and fees at the Graduate Arts & Sciences rate for any remaining term needed to complete the M.A. degree.

### Financial Assistance

- If you're eligible, you can be considered for available scholarship funds at either school.
- If you're eligible, you can receive up to three years of Law School-administered aid.
- If you receive Law School scholarship funds or aid, they are not available during the year you're paying tuition to the other program.
- Educational loan applications are processed by the Office of Student Financial Aid for the College of William & Mary.

## School of Law Courses

Refer to the Course Descriptions section.

# Course Descriptions

## Explanation of Course Descriptions

Graduate courses may be taken by persons other than regular or provisional graduate students in Arts and Sciences only with the consent of the chairperson of the department/program committee concerned.

Pairs of numbers (501,502) indicate continuous courses. A hyphen between numbers (501-502) indicates that the courses must be taken in the succession stated.

Courses involving laboratory or studio activity are so labeled. All others are classroom courses. Semester hour credit for each course is indicated by numbers in parentheses.



## Arts & Sciences Courses (AMST, ANTH, APSC, BIOL, CHEM, CSCI, HIST, PHYS, PSYC, PUBP)

### AMST 590 - Topics in American Studies

*Fall and Spring (3) Various Faculty. Note: Topics change each semester; see open course list.*
These seminars explore specific areas, themes, or critical issues in American Studies. *If there is no duplication of topic, may be repeated for credit.*

### AMST 661 - Introduction to American Studies

*Fall (3) Staff.*
This course is required of all entering graduate students in American Studies. In this reading- and writing-intensive seminar, students encounter both current and classic works of the field. They will acquaint themselves with a wide array of interdisciplinary approaches, focusing on both critical theory and practical application in research. MA-only and MA/Ph.D. students will produce the first iterations of the Master's thesis, while Ph.D. students will produce the first outline of their comprehensive fields or alternatively, a dissertation topic. The course also provides training in the responsible and ethical conduct of research, including discussions of fabrication, falsification, and plagiarism. *May be repeated for credit with permission from Instructor and Grad Director.*

**AMST 671 - American Studies: Profession and Practice**

*Spring (1) Staff.*

This course investigates both practical and theoretical issues relevant for American Studies in and outside the academy. The class offers students strategic approaches to areas critical for successful careers, areas such as planning long term research, writing grant applications, conference planning, and honing classroom teaching skills. As well, we explore pertinent issues that influence American Studies today: the university system, public culture, and professionalism. The course features the regular participation of guests from American Studies and outside the program.

**AMST 690 - Directed Research**

*Fall and Spring (3) Various Faculty. Prerequisite(s):* Permission of the Program Director is required.

A program of extensive reading, writing and discussion in a special area of American Studies for MA level students. Students accepted for this course will arrange their program of study with an appropriate faculty advisor. *This course may be repeated for credit if there is no duplication of topic.*

**AMST 695 - Directed Thesis Master's Research**

*Fall and Spring (variable 3-9) Graded Pass/Fail. Note: Students who are not submitting a master's thesis may not use this course to satisfy degree requirements.*

Students design and conduct research in support of their master's thesis under the direction of a faculty advisor. *This course may be repeated, but no more than 9 semester credit hours may be used to satisfy degree requirements for submitting a master's thesis.*

**AMST 700 - Thesis**

*Fall and Spring (variable 1-12) Graded :Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the thesis [700]. Note: Students who are not submitting a master's thesis may not use this course to satisfy degree requirements.*

Students finish the research for and the writing of their master's thesis under the direction of a faculty advisor. *This course may be repeated, but no more than 6 semester credit hours may be used to satisfy degree requirements for a master's.*

**AMST 701 - Pedagogy**

*Spring (1) Staff.*

This course introduces graduate students to various pedagogical methods and issues. It also covers handling challenging situations in the classroom; the design of course syllabi; and preparing discussion topics and lectures.

**AMST 715 - Seminar in American Studies**

*Fall and Spring (3) Various Faculty. Prerequisite(s):* Open only to candidates for advanced degrees. *Note: Topics change each semester; see open course list.*

These seminars explore specific areas, themes, or critical issues in American Studies. *If there is no duplication of topic, may be repeated for credit.*

**AMST 766 - Directed Studies**

*Fall and Spring (1-12) Staff Graded Pass/Fail*

No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated.*

**AMST 790 - Directed Research**

*Fall and Spring (3) Various Faculty. Prerequisite(s):* Permission of the Program Director is required.

A program of extensive reading, writing and discussion in a special area of American Studies for Ph.D.

level students. Students accepted for this course will arrange their program of study with an appropriate faculty advisor. *This course may be repeated for credit if there is no duplication of topic.*

**AMST 795 - Directed Dissertation Research**

*Fall and Spring (variable 3-12) Graded Pass/Fail. Note: Students who are not submitting a dissertation may not use this course to satisfy degree requirements.*

Students design and conduct research in support of their dissertation under the direction of a faculty advisor. *This course may be repeated, but no more than 12 semester credit hours may be used to satisfy degree requirements for a student submitting a dissertation.*

**AMST 800 - Dissertation**

*Fall and Spring (variable 1-12) Staff. Graded : Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the dissertation.*

Students finish the research for and the writing of their dissertation under the direction of a faculty advisor. Students who are not submitting a dissertation may not use this course to satisfy degree requirements. *This course may be repeated, but no more than 24 semester credit hours may be used to satisfy degree requirements for a doctorate (only).*

**ANTH 517 - Issues in Anthropology**

*Fall and Spring 1-3 Staff*

Students will conduct research in anthropology focused on selected issues and problems such as inequality and justice, the environment, ethnic relations and minorities, war and peace, population, and social changes. *This course may be repeated for credit when topics vary.*

**ANTH 525 - Applied Anthropology**

*Spring 3 Hamada.*

This seminar introduces basic applied anthropology perspectives and methodology for community research. It combines classroom discussion, empirical fieldwork, data analysis, and ethnographic writing. Topics include statistical analysis, collaborative research, professional ethics, behavioral observation techniques, interview and survey techniques, report writing, digital representation, policy application, and grant-writing. It introduces quantitative/qualitative research design, data collection, analysis and interpretation used in applied anthropology.

**ANTH 526 - Foodways and the Archaeological Record**

*Spring 3 Bowen.*

A multidisciplinary perspective on how societies procure food. Drawing upon archaeological, historical, and anthropological studies, students will learn about provisioning systems found in foraging, horticultural, agrarian, and industrialized societies. Emphasis will be placed on Great Britain and North America.

**ANTH 527 - Native People of Eastern North America**

*Spring 3 Bragdon.*

This course treats the native people of eastern North America as they have been viewed ethnographically, theoretically and historically. Students will apply anthropological theory to historical and contemporary issues regarding native people of the eastern United States, and develop critical skills through reading, research and writing about these people.

**ANTH 528 - Methods in Archaeological Science**

*(4) Kahn. Note: There will be 1.5 hours of lecture/class discussion and 1.5 hours of lab/discussion per week.*

This survey and lab course focuses on the application of scientific methods of analysis to archaeological materials, including stone, bone, coral, charcoal, plant remains, and other organic materials. The emphasis

will be on the history of archaeological science within the discipline and current advances in physical science applications in archaeology. Topics to be covered include Dating Techniques (Relative and Absolute, with an emphasis on Chronometric techniques), Geomorphology, Soils Analysis, and Environmental Reconstruction; Compositional Analysis, Materials Analysis, and Technology; Microscopy and Provenance Studies. At least half of the course will involve hands on learning with archaeological materials and datasets in the lab.

**ANTH 529 - Exploring the Afro-American Past**
*Fall or Spring 3 Gundaker, Norman.*
A study of the commonalities and differences across Afro-America from the U.S. to Brazil. Works in anthropology, history, and literature will be used to explore the nature of historical consciousness within the African Diaspora and diverse ways of understanding the writing about Afro-American pasts.

**ANTH 530 - Material Life in African America**
*Fall 3 Gundaker.*
This seminar explores the world of things that African Americans have made and made their own in what is now the United States from the colonial era through the present. Topics include landscapes of enslavement and freedom, labor practices, architecture, foodways, objects, aesthetics, contexts of production and use, and the theories of material life, expression, and culture through which these topics are studied. Cross-listed with [AMST 518 ]

**ANTH 532 - Maroon Societies**
*Fall or Spring 3 Gundaker.*
An exploration of the African American communities created by escaped slaves throughout the Americas, from Brazil up through the Caribbean and into the southern United States. Emphasis on the processes by which enslaved Africans from diverse societies created new cultures in the Americas, on the development of these societies through time, and on the present-day status of surviving maroon communities in Suriname and French Guiana, Jamaica, Colombia and elsewhere.

**ANTH 545 - Special Topics in Anthropology**
*Fall and Spring 1-3 Staff.*
Areas of current research interest presented by resident and visiting faculty. *Course may be repeated for credit when topics vary.*

**ANTH 550 - Archaeological Conservation (I)**
*Fall (3) Staff.*
An introduction to the theory and practice of archaeological conservation, including systems of deterioration, treatment, and storage. The first semester emphasizes the material science and technological underpinnings of archaeological artifacts.

**ANTH 551 - Archaeological Conservation (II)**
*Spring (3) Staff.*
In the second semester, students receive instruction and experience in the laboratory treatment of artifacts from 17th to 19th century archaeological sites in North America and the West Indies.

**ANTH 553 - Zooarchaeology**
*Spring 4 Bowen.*
An introduction to the identification and interpretation of animal bones recovered from archaeological sites.

**ANTH 554 - Quantitative Research Methods in Anthropology**
*Fall 3 Gallivan.*
Introduction to the design and implementation of quantitative research in anthropology. Statistical methods covered include those used in describing and interpreting archaeological, biological, ethnographic and linguistic data. The course focuses on exploratory data analysis, probability, sampling, hypothesis testing, correlation and regression.

**ANTH 555 - Practicing Cultural Resource Management**
*Spring 3 Staff.*
This course introduces students to the practice of cultural resource management (contract archaeology), including hands-on experience in planning, proposal preparation, field and laboratory strategies, project management, and the reporting process.

**ANTH 556 - Human Skeletal Biology**
*Fall or Spring 3 Blakey.*
This course covers technical aspects of human identification involving skeletal remains. These techniques include bone and tooth identification, age and sex estimation, and methods for the assessment of nutrition and disease in archaeological populations.

**ANTH 557 - The Archaeology of Colonial Williamsburg and Tidewater Virginia**
*Spring 3 Brown.*
This course examines the archaeological research on sites located in and around Williamsburg, the capital of the colony of Virginia from 1699-1781. The course explores the contributions that archaeological research has made to understanding the development of Jamestown and Williamsburg, in relation to a regional, plantation-based economy and society. Consideration is also given to larger issues surrounding the relative position of Williamsburg and its hinterland within the Atlantic World. Specific comparisons will be made with the development of other English colonies such as Bermuda and Barbados.

**ANTH 558 - Caribbean Archaeology**
*Fall (3) Staff.*
The archaeology of western Atlantic islands for the period 1492-1900 AD. The pre- Columbian background, contact between indigenous and European groups, European settlement and island development will be examined through recent archaeological work on urban settlements, military forts, commercial structures, sugar mills and others.

**ANTH 559 - Tsenacomoco: Native Archaeology of the Chesapeake**
*Spring 3 Gallivan.*
This class explores the "deep history" of Native Chesapeake societies by tracing a 15,000- year sequence resulting in the Algonquian social landscape of "Tsenacomoco". The class considers Pleistocene-era settlement, hunter-forager cultural ecology, Woodland-period migration, agricultural adoption, chiefdom emergence, Native responses to colonialism, and contemporary uses of the Native past.

**ANTH 566 - Directed Studies**
*Fall and Spring variable 3-4 credits Graded Pass/Fail*
No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated.*

**ANTH 572 - Ethnographic History**

*Fall or Spring 3 Bragdon, Glasser, Gallivan.*
Critical readings of recent works by anthropologists and historians, with an emphasis on cross-disciplinary theory and method.

**ANTH 584 - Collecting and Exhibiting Culture**
*Fall or Spring 3 Moretti-Langholtz, Norman.*
The process of assembling material artifacts across cultural boundaries. The course will examine the history of field collecting in different parts of the world, questions of cultural ownership, theories of acquisition and preservation used by museums and private collectors, and issues in the exhibiting of both objects and people. Readings will draw mainly on material from Canada, the U.S., Mesoamerica, the Caribbean, Africa, and Europe.

**ANTH 586 - Cultural Politics of Art**
*Fall or Spring 3 Gundaker.*
Exploration of the cultural and political world of art as experienced by artists, museum visitors, gallery owners, teachers, collectors, curators, critics, and charlatans. Class discussions will consider anthropological and art historical perspectives in addressing questions central to both disciplines.

**ANTH 590 - Writing and Reading Culture**
*Fall or Spring 3 Staff.*
Trends in ethnography (and ethnographic history), during the past two decades. Students will begin with a 'classic monograph,' go on to read about the 'crisis' in representation as depicted by Clifford and Marcus, and then devote themselves to a critical analysis of a range of more recent work.

**ANTH 592 - Biocultural Anthropology**
*Spring 3 Blakey.*
Recent advances in the study of interactions between human biology and culture are examined. Biocultural anthropology extends beyond the limitations of evolutionary theory, employing political and economic perspectives on variation in the physiology and health of human populations.

**ANTH 600 - Socio-Cultural Theory**
*Fall (3) Staff.*
The course will discuss major concepts, theories and findings in cultural and social Anthropology. Students will be introduced to the history of thought within the discipline from 19th-century evolutionism to postmodernism. This course includes training in the responsible and ethical conduct of research, as well as discussion of fabrication, falsification, and plagiarism.

**ANTH 602 - Biological Anthropology**
*Spring 3 Staff.*
Anatomy and behavior of nonhuman primates, fossil hominids, and modern human populations are analyzed via theories and methods in biological anthropology. Emphasis is given to construction of models for understanding the evolution of human behavior, focusing on bipedalism, technology, and language.

**ANTH 603 - Archaeological Theory**
*Spring (3) Staff.*
An examination of the major concepts and methodological approaches in prehistoric archaeology as background for the understanding of historical archaeology.

**ANTH 604 - Archaeological Method**

*Spring 3 Staff.*
A general introduction to field and laboratory techniques of prehistoric and historical archaeological research.

**ANTH 605 - Anthropological Linguistics**
*Spring 3 Bragdon.*
This course will examine the history and theories of linguistic anthropology. Focus will be on the ways in which linguistics has influenced the development of anthropological theories concerning cognition and practice.

**ANTH 606 - Documentary Anthropology**
*Fall 3 Bragdon.*
Introduction to methods and theories of text analysis for archaeological and anthropological research. Structural, symbolic and cognitive models of culture are presented. Emphasis is on the integration of these models, the use and evaluation of documents by historical archaeologists, and research with primary historical data.

**ANTH 607 - Bioarchaeology and the African Diaspora**
*Spring 3 Blakey.*
This course is a graduate seminar on the use of paleopathological and paleodemographic data derived from human skeletons uncovered at archaeological sites. The historic archaeological sites of the African Diaspora in the Americas provide the comparative examples of the course.

**ANTH 610 - Artifacts**
*Spring (3) Staff.*
An examination of Euro-American ceramics, glassware, tobacco pipes and other portable artifacts of the period c.1600-1900 A.D. Students will learn how to date, identify, and analyze classes of objects from historic archaeological contexts, as well as how to obtain information pertaining to technology, function, and social and economic status.

**ANTH 611 - Historical Archaeology**
*Spring (3) Horning.*
An historical review of the method and theory of American historical archaeology, with emphasis upon specific research strategies and accomplishments in relation to the broader study of American material culture. The role of historical archaeology within historic preservation, cultural resource management, and historic museums will also be considered.

**ANTH 612 - American Material Culture**
*Fall 3 Horning.*
This course examines American life and culture, past and present, through its material artifacts. It focuses on the historical development and behavioral aspects of American material culture as revealed by archaeological and documentary research. The relationship of material culture including vernacular architecture, ceramics, glass, mortuary art, and other household and industrial artifacts, and various social dimensions, such as social class, gender and ethnicity, will be explored.

**ANTH 613 - Historical Archaeology of the American South**
*Spring 3 Staff.*
The course tests the notion of Southern uniqueness and Southern identity against an array of archaeological evidence dating from the earliest colonial settlements through to the archaeology of the Depression era.

**ANTH 615 - North American Prehistory**

*Spring 3 Gallivan.*

A seminar on the prehistory of North America north of Mexico. Topics covered are: the peopling of North America, the cultural development of indigenous peoples, the archaeology of Native Americans, and the cultural processes that attempt to explain North American culture history.

**ANTH 630 - Writing and Publishing in Anthropology**

*Fall or Spring 3 Staff.*

A practical introduction to the whole range of writing and publishing activities engaged in by anthropologists, this course will cover techniques, conventions, and practices regarding grant proposals, book reviews, CVs, articles, abstracts, books, research reports, and job applications. We will consider submission procedures, the editing process, design considerations, distribution and marketing, legal issues, and ethical questions. The intent will be to demystify an aspect of the life of professional anthropologists that students are often left to discover on their own. In addition to substantial readings, there will be a writing assignment every week.

**ANTH 640 - Presentation and Paper**

*Spring (3) Staff.*

This seminar prepares students for the Presentation and Paper requirement through a program that includes reading examples of anthropological scholarship, developing and revising an article-length paper, and publicly presenting a scholarly argument. All students in the M.A./Ph.D. and Ph.D. tracks will complete the Presentation and Paper process during their fourth semester by writing a paper that engages questions of anthropological significance and by presenting the paper to the department by the end of the academic year.

**ANTH 645 - Special Topics in Anthropology**

*Fall and Spring 1-3 Staff*

Areas of current research interest presented by resident and visiting faculty. *Course may be repeated for credit when topics vary.*

**ANTH 685 - Colloquium**

*Fall and Spring variable 0-2 Graded Pass/Fail*

No credits earned in this course may be applied to the number of credits required for a degree. *This course may be repeated.*

**ANTH 690 - Directed Research**

*Fall and Spring (3) Staff.*

A program of extensive reading, writing and discussion in a special area of Anthropology for students entering the M.A./Ph.D. program without a previous graduate degree. Students accepted for this course will arrange their program of study with an appropriate faculty advisor.

**ANTH 695 - Directed Thesis Master's Research**

*Fall and Spring (variable 3-9) Staff. Graded Pass/Fail. Note: Students who are not submitting a master's thesis may not use this course to satisfy degree requirements.*

Students design and conduct research in support of their master's thesis under the direction of a faculty advisor. *This course may be repeated, but no more than 9 semester credit hours may be used to satisfy degree requirements for submitting a master's thesis.*

**ANTH 700 - Thesis**

*Fall and Spring (variable 1-12) Staff. Graded :Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the thesis.*

Students finish the research for and the writing of their master's thesis under the direction of a faculty advisor. Students who are not submitting a master's thesis may not use this course to satisfy degree requirements. *This course may be repeated, but no more than 6 semester credit hours may be used to satisfy degree requirements for a thesis master's (only)*

**ANTH 701 - Issues in Historical Anthropology**

*Fall and Spring 3 Staff.*

An examination of selected topics in cultural anthropology. *This course may be repeated for credit.*

**ANTH 702 - Issues in Historical Archaeology**

*Fall and Spring 3 Staff.*

An examination of selected topics in historical archaeology. *This course may be repeated for credit if there is no duplication of material.*

**ANTH 766 - Directed Studies**

*Fall and Spring (1-12) Staff Graded Pass/Fail*

No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated.*

**ANTH 790 - Independent Study**

*Fall and Spring 3 Staff.*

A program of extensive reading, writing and discussion in a special area of historical anthropology or historical archaeology for the Ph.D. student. Students accepted for this course will arrange their program of study with an appropriate faculty advisor. *This course may be repeated for credit if there is no duplication of material.*

**ANTH 795 - Directed Dissertation Research**

*Fall and Spring (variable 3-12) Staff. Graded Pass/Fail Note: Students who are not submitting a dissertation may not use this course to satisfy degree requirements.*

Students design and conduct research in support of their dissertation under the direction of a faculty advisor. *This course may be repeated, but no more than 12 semester credit hours may be used to satisfy degree requirements for a student submitting a dissertation.*

**ANTH 800 - Dissertation**

*Fall and Spring (1-12) Staff. Graded : Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the dissertation.*

Students finish the research for and the writing of their dissertation under the direction of a faculty advisor. Students who are not submitting a dissertation may not use this course to satisfy degree requirements. *This course may be repeated, but no more than 24 semester credit hours may be used to satisfy degree requirements for a doctorate (only).*

**APSC 566 - Directed Studies**

*Fall and Spring variable 3-4 credits Graded Pass/Fail*

No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated.*

**APSC 603 - Introduction to Scientific Research I**

*Fall (2) Prerequisite(s):* Consent of the instructor.

This course sequence, designed for the first year graduate student, acquaints them with the range and scope of research opportunities in Applied Science and the skills and knowledge necessary to function as

a professional researcher. Provides training in the responsible and ethical conduct of research, including discussions of fabrication, falsification, and plagiarism.

**APSC 604 - Introduction to Scientific Research II**

*Spring (2) Prerequisite(s):* APSC 603 and consent of instructor.
Continuation of APSC 603.

**APSC 607 - Mathematical and Computational Methods I**

*Fall (4)*
This course is a survey of important mathematical principles and techniques used to solve problems encountered in a variety of scientific disciplines and industrial applications. These disciplines and applications include chemistry, physics, and materials science. Computation is a major aspect of the course and will occupy a substantial portion of the curriculum. Computational instruction will include both analytical and numerical techniques and will make use of symbolic and numerical software packages.

**APSC 608 - Mathematical and Computational Methods II**

*Spring (4) Prerequisite(s):* APSC 607 or consent of instructor.
Continuation of APSC 607.

**APSC 621 - Applied Solid State Science**

*Fall (4)*
Students learn advanced concepts for bonding, macromolecular ordering, and structure-property relationships in materials. The course begins with macromolecular bonding as it relates to material dipoles, crystallographic ordering, and surfaces/interfaces. The second unit focuses on processing and morphology involving metals, ceramics, polymers, composites, adhesives, plasticizes, and solvents. The final portion of the course considers material interactions (with other materials or with electromagnetic radiation). Feynman's Coupled States approach is invoked for determining energies of electronic states arising in solid materials. Reduction/oxidation potentials, acidity/basicity, corrosion, adsorption, adhesion, electronic mobility/polarizability, and optical phenomenon are discussed in the context of the perturbation or interaction of electronic states.

**APSC 622 - Quantitative Materials Characterization**

*Fall (4)*
This course presents a wide variety of means by which the properties and characteristics of materials can be experimentally determined. These include electrical, optical, acoustic, thermal, spectroscopic, and resonance methods. The objective is to discuss these separate means under the umbrella of fundamentals of interactions of matter with particles and waves. The course will address issues of data acquisition, such as sampling, discretization, and signal processing. Applications of these techniques to research in materials development, synthesis, processing, and in situ manufacturing. Cross-listed with CHEM 622

**APSC 623 - Materials Science of Surfaces and Interfaces**

*Spring (3) Prerequisite(s):* consent of instructor.
Fundamental and applied aspects of metal, inorganic, polymer and other organic surfaces. Solid/solid, solid/liquid and solid/vapor interfaces. Their structure and defects, thermodynamics, reactivity, electronic and mechanical properties. Applications depend on class interests, but have previously included microelectronics, soils, catalysis, colloids, composites, environment sensitive mechanical behavior, UHV single crystal studies, materials durability, batteries and fuel cells, vacuum science and technology, and surface bioactivity. Cross-listed with CHEM 623

**APSC 627 - Lasers in Medicine, Science, and Technology**

*Spring (3) Prerequisite(s):* PHYS 101/102 or PHYS 107/108.
A basis for understanding and use of lasers and modern optics in medicine, science, and technology. Particularly interaction of laser beams with biological materials and tissue, refractive surgery, spectroscopic applications including Raman and fluorescence imaging, laser remote sensing, and laser safety.

**APSC 631 - Applied Cellular Neuroscience**

*Fall (3) Prerequisite(s):* consent of instructor.
We examine cellular neurophysiology including topics such as: membrane potentials, ion channels and permeability, electrical signaling and cable properties, synaptic transmission, and neuromodulation. We apply these concepts to motor control, homeostatic regulation, and special senses.

**APSC 632 - Applied Systems Neuroscience**

*Spring (3) Prerequisite(s):* APSC 631 or consent of instructor.
We explore how behaviors emerge through multiple levels of organization in the nervous system. Topics include: cranial and spinal reflexes, central pattern generator networks, the neural control of breathing, the neural control of appetite, body weight, and obesity, and finally, the neuropharmacology of nicotine addiction.

**APSC 637 - Introduction to Optoelectronics**

*Spring (3) Prerequisite(s):* PHYS 621, PHYS 741, and APSC 627 are recommended.
This course is a comprehensive introduction to waveguide optics and photonics in semi-conductor structures, and provides the basic knowledge for understanding the concepts of optoelectronic devices for transmission and processing of optical signals. These optical communications engineering devices are becoming increasingly important for optical disk storage systems, optical chip-chip interconnections and optical fiber transmission and exchange.

**APSC 640 - Membrane Proteins: Structure, Function, and Biomedical Research**

*Fall (3) Cotten Prerequisite(s):* Consent of Instructor *Note: CHEM 415 (Advanced Biochemistry) or the equivalent is highly recommended.*
Biological membranes and their constituents are involved in virtually all processes vital to living organisms, including nutrient uptake, information transfer between the inside and outside of the cell, and the mediation of vital activities such as nerve impulse propagation and hormone signaling. It is therefore not surprising that our modern view of biological cells is profoundly related to the descriptions of their membranes and that membrane-associated receptors, enzymes, and ion channels are prime drug targets. This multi-disciplinary course will cover the interplay between the three-dimensional structures, dynamics, and functions of membrane proteins and lipids, the technical approaches used to characterize their functions and active sites under physiologically-relevant conditions, and the therapeutic potential of targeting membrane proteins to treat a broad range of illnesses, such as neurological disorders, infectious diseases, inflammation, cystic fibrosis, autoimmune disorders, and cancer.
Cross-listed with CHEM 640

**APSC 647 - Correlated Electron Systems**

*Fall (3) Prerequisite(s):* PHYS 621, and PHYS 741 are recommended.
This course is concerned with the microscopic aspects of magnetic and superconducting states encountered in nature, their properties, and possible technological applications. The following topics will be discussed: Itinerant Electron Magnetism, Spin Waves, BCS Theory of Superconductors, Vortices in Type II Superconductors, Josephson Effect, and Quantum Interferometers. The course can be understood

with minimal prerequisites and the mathematical techniques used are fairly elementary. However a basic knowledge of spin and angular momentum is essential, since quantum mechanics lies at the heart of both magnetism and superconductivity.

**APSC 651 - Cellular Biophysics and Modeling**
*Fall (3)*
This course is an introduction to simulation and modeling of dynamic phenomena in cell biology and neuroscience. Topics covered include membrane transport and diffusion, the biophysics of excitable membranes, the gating of voltage and ligandgated ion channels, intracellular calcium signaling, and electrical bursting in neurons and other cell types.

**APSC 653 - Cellular Signaling in MATLAB**
*Spring (3)*
An introduction to computer modeling of cell signal transduction, that is, how cells convert external stimuli such as hormones and neurotransmitters into an integrated and coordinated intracellular response. Topics covered include: binding of ligand to receptors, ion channels and electrical signals, metabotropic signaling (G protein coupled receptors, effector molecules, second messengers), intracellular calcium dynamics, and sensory transduction in the visual and auditory systems. Each topic will be introduced from the biological perspective and studied by simulation using MATLAB. Prior experience with mathematical and computer modeling is not required.

**APSC 654 - Bioinformatics and Molecular Evolution**
*Spring (3)*
An introduction to computational molecular biology and molecular evolution including nucleotide and amino acid sequence comparison, DNA fragment assembly, phylogenetic tree construction and inference, RNA and protein secondary structure prediction and substitution models of sequence evolution. Cross-listed with [BIOL 454]

**APSC 685 - Colloquium**
*Fall and Spring variable 0-2 Graded Pass/Fail*
No credits earned in this course may be applied to the number of credits required for a degree. *This course may be repeated.*

**APSC 690 - Readings in Applied Science**
*Fall, Spring Hours and credits to be arranged.*
Subject and text to be selected by the instructor and the students. *This course may be repeated for credit.*

**APSC 691 - Topics in Applied Science**
*Fall, Spring Hours and credits to be arranged.*
Subject and text to be selected by the instructor and the students.

**APSC 694 - Directed Research Topics**
*Fall and Spring (variable 1-12)*
Students design and conduct research on a relevant topic with a faculty advisor. Students who are submitting a master's thesis may not use this course to satisfy degree requirements. *course may be repeated, but no more than 12 semester credit hours may be used to satisfy degree requirements.*

**APSC 695 - Directed Thesis Master's Research**
*Fall and Spring (variable 3-9) Graded Pass/Fail. Note: Students who are not submitting a master's thesis may not use this course to satisfy degree requirements.*
Students design and conduct research in support of their master's thesis under the direction of a faculty

advisor. *This course may be repeated, but no more than 9 semester credit hours may be used to satisfy degree requirements for submitting a master's thesis.*

**APSC 700 - Thesis**

*Fall and Spring (variable 1-12) Graded : Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the thesis.*

Students finish the research for and the writing of their master's thesis under the direction of a faculty advisor. Students who are not submitting a master's thesis may not use this course to satisfy degree requirements. *This course may be repeated, but no more than 6 semester credit hours may be used to satisfy degree requirements for a thesis master's (only)*

**APSC 701 - Fundamentals of Data Acquisition and Signal Processing**

*Fall (3) Prerequisite(s):* MATH 211, 212, and 302.

Data acquisition of signals; sampling and discretization; the sampling theorem; undersampling and aliasing; convolution; correlation; frequent domain representation and analysis; discrete Fourier transform and FFT spectrum and filters; power spectrum estimation; z-transform and time-representation and analysis; wave shaping.

**APSC 710 - Research Project**

*(2) Graded :Grade of either G or U converts to P upon submission and acceptance of the paper documenting the independent research project.*

Students will select a faculty advisor in their area of research interest, undertake a research project, and write a paper describing their research. This course is normally taken after a student has completed 18 credit hours toward the MS degree. However, students are advised to begin the process of selecting a research area and an advisor, and to begin meeting with the advisor before completing 18 credits. It is not open to students who receive credit for APSC 700. Students wishing to register for APSC 710 must submit a short abstract describing their research project to the Graduate Director at least two weeks before the class is scheduled to begin. The faculty member who will direct the research must sign this abstract. Any tenure track faculty may direct a research project. Any student, who is unable to convince any other faculty member to be their APSC 710 advisor, will be assigned to the Applied Science graduate program director. Any student in this situation must still submit a short abstract to the Graduate Director for approval at least two weeks before the semester begins. Completion of the course includes completion of the project, writing a report and receiving approval from the advisor. All requirements must be completed by the last day of classes (not of the exam period) for the student to receive credit in a given semester. *May not be repeated. Semester credit hours earned may be used to satisfy degree requirements for a non-thesis master's (only).*

**APSC 722 - Quantitative Nondestructive Evaluation I**

*Fall (3)*

An overview of techniques and physical principles for determining material properties and detecting and characterizing defects in materials. Ultrasonic and thermographic methods receive special emphasis.

**APSC 723 - Quantitative Nondestructive Evaluation II**

*Spring (3) Prerequisite(s):* APSC 722.

This course is a continuation of APSC 722, and covers nondestructive evaluation techniques such as acoustic microscopy, optical, eddy current and radiographic NDE.

**APSC 751 - Mathematical Physiology I**

*Fall (3) Prerequisite(s):* APSC 651 or consent of instructor.

Computational and mathematical aspects of electrophysiology and cellular biophysics emphasizing stochastic and spatial modeling applied to cell signal transduction, the dynamics of intracellular calcium, and the visual neurosciences.

**APSC 752 - Mathematical Physiology II**
*Spring (3) Prerequisite(s):* APSC 751 or consent of instructor.
This course is a continuation of APSC 751 - Mathematical Physiology I.

**APSC 766 - Directed Studies**
*Fall and Spring (1-12) Staff Graded Pass/Fail*
No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated.*

**APSC 772 - Tensor Interaction in Magnetic Resonance**
*Spring (3) Prerequisite(s):* APSC 671 or consent of instructor.
This course is intended for graduate students who have begun Ph.D. thesis work in magnetic resonance. Topics to be covered include: angular momentum theory, spherical representation of tensors, the Wigner-Eckart theorem and matrix elements of tensor operators, operator bases for representing the spin density matrix, and the theory and applications of spin relaxation.

**APSC 776 - Acoustic Wave Propagation in Solids**
*Spring (3) Prerequisite(s):* APSC 722.
Wave propagation in solids with emphasis on the evaluation of materials and defects. Linear and non-linear wave propagation, mode analysis and mixing, reflection and refraction at interfaces, and wave scattering from defects in isotropic and anisotropic media will be discussed, along with the relationship between wave behavior and the reconstruction of material constitutive equations. The course also will describe the practical aspects of the generation and detection of acoustic waves for non-destructive evaluation of materials.

**APSC 784 - Imaging Methods**
*Spring (3) Prerequisite(s):* consent of instructor.
Fundamentals and applications of the two complementary families of imaging techniques: optical microscopy and scanning probe methods. Topics covered include geometric and wave optics, optical imaging, basic forms of light--matter interaction, all major optical microscopy modes (including fluorescence and confocal), interfacial forces, atomic force microscopy, scanning tunneling microscopy, and near-field optics.

**APSC 785 - Acoustic and EM Scattering**
*Fall (3) Prerequisite(s):* APSC 723.
Acoustic, electromagnetic and elastic wave scattering for materials characterization and remote sensing. Subjects to be covered are: field equations, boundary conditions, Green's functions; integral representations and integral equations, scattering amplitude and scattering matrices; plane, spherical and cylindrical scalar and vector wave functions; scattering of waves by spheres and cylinders; inverse scattering techniques.

**APSC 790 - Readings in Applied Science**
*Fall, Spring Hours and credits to be arranged.*
Subject and text to be selected by the instructor and students.

**APSC 791 - Topics in Applied Science**
*Fall, Spring Hours and credits to be arranged.*
Subject and text to be selected by the instructor and students.

**APSC 795 - Directed Dissertation Research**

*Fall and Spring (3-12) Staff. Graded Pass/Fail. Note: Students who are not submitting a dissertation may not use this course to satisfy degree requirements.*

Students design and conduct research in support of their dissertation under the direction of a faculty advisor. *This course may be repeated, but no more than 12 semester credit hours may be used to satisfy degree requirements for a student submitting a dissertation.*

**APSC 800 - Dissertation**

*Fall and Spring (1-12) Staff. Graded :Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the dissertation.*

Students finish the research for and the writing of their dissertation under the direction of a faculty advisor. Students who are not submitting a dissertation may not use this course to satisfy degree requirements. *This course may be repeated, but no more than 24 semester credit hours may be used to satisfy degree requirements for a doctorate (only).*

**BIOL 501 - Evolutionary Genetics**

*Fall or Spring (3) Murphy. Prerequisite(s):* BIOL 220, BIOL 225, and BIOL 312 or equivalent.

The course is designed to consider evolution as a process: Basic population genetic theory; sources of variation; natural selection; isolating mechanisms and speciation. Three lecture hours, one recitation hour.

**BIOL 504 - Topics in Biology**

*Fall and Spring (1-4) Staff.*

Areas of special current research interest presented by resident and visiting faculty members as opportunity and demand arise. Hours to be arranged. *This course may be repeated for credit.*

**BIOL 509 - Virology**

*Fall (3) Williamson. Prerequisite(s):* BIOL 220, 221, 225, 226, and 310.

This course gives an overview of fundamental concepts in virology. Topics include the discovery of viruses, principles of virus structure, viral morphogenesis, virus detection methods, viral vaccines, and ecological significance of viruses. A strong emphasis is placed on molecular mechanisms of viral replication. Three class hours.

**BIOL 510 - Animal Behavior**

*Fall (3) Cristol. Prerequisite(s):* BIOL 220 or equivalent recommended. *Note: Not offered in 2019-2020.*

The study of vertebrate and invertebrate behaviors as adapted traits under the influence of both genes and the environment. Animal behavior, including that of humans and endangered species, will be placed in an ecological and evolutionary context. Three class hours.

**BIOL 512 - Vascular Plant Systematics**

*Fall (4) Case. Prerequisite(s):* BIOL 304 or equivalent. *Note: Not offered in 2019/2020.*

A study of the principles and research methods of vascular plant systematics, emphasizing classification, evolution, and comparative morphology of the major families of vascular plants. Three class hours, four laboratory hours.

**BIOL 516 - Ornithology**

*Fall or Spring (4) Cristol. Prerequisite(s):* BIOL 302. BIOL 510 and BIOL 413 recommended.
*Prereq/Corequisite(s):* Offered in alternate years.

Lectures, laboratory exercises, field experiments and birding trips will provide a comprehensive introduction to the ecology and evolution of birds. Phylogenetic relationships, behavior, conservation and

identification of Virginia's avian fauna will be stressed. Three class hours, three laboratory hours, and several early morning field trips.

**BIOL 517 - Population and Community Ecology**

*Fall (4) Dalgleish. Prerequisite(s):* BIOL 302 and BIOL 304 or equivalents.
Discussion of the structure and dynamics of ecological populations and biotic communities. Emphasis will be on environmental constraints and species interactions that control population growth and determine both diversity and similarities in community structure and function. Three class hours, three laboratory hours.

**BIOL 518 - Functional Ecology**

*Spring (3) Sanderson. Prerequisite(s):* BIOL 302 or equivalent
Concepts and approaches in physiological ecology, biomechanics, and ecological morphology. The course emphasizes critical thinking, discussion, and student presentations on journal articles from the primary literature. Hypothesis formulation and methods of data collection and analysis will be studied. Three class hours.

**BIOL 519 - Plant Development and Physiology**

*Spring (4) Staff. Prerequisite(s):* BIOL 304. *Note: Not offered in 2019-2020.*
An investigation of major topics in plant biology, emphasizing hormone signaling and post-embryonic development, and the use of genetic, molecular genetic, histological, biochemical and molecular systematics approaches to elucidate major outstanding questions. The accompanying lab introduces students to model plant systems and a range of molecular genetic, histological and systematics techniques.

**BIOL 520 - Genetic Analysis**

*Fall or Spring (3) Kerscher. Prerequisite(s):* BIOL 220, 225 or equivalents.
Discussion of classical and modern genetics. Topics will be drawn from the following: Mendelian inheritance, recombination and linkage, cytogenetics, model genetic systems, mutation analysis, mitochondrial and chloroplast genetics. Three class hours.

**BIOL 521 - Genetic Analysis Laboratory**

*Spring (1) Staff. Prereq/Corequisite(s):* BIOL 520. *Note: Not offered in 2019/2020.*
Designed to illustrate genetic principles through experimental work with living organisms, including Drosophila, flowering plants and fungi. Three laboratory hours.

**BIOL 526 - Aquatic Ecology**

*Fall or Spring (4) Pantel. Prerequisite(s):* BIOL 220 or equivalent. *Note: Not offered in 2019-2020.*
Introduction to the ecology of natural water; discussion of the important physical and chemical characteristics of aquatic environments and the adaptations of organisms living in water; community structure and the important processes affecting it, including major aspects of water pollution. Emphasis is on freshwater communities but various aspects of marine ecology are discussed also. Three class hours, three laboratory hours.

**BIOL 527 - Wetland Ecosystems**

*Fall (3) Chambers Prereq/Corequisite(s):* BIOL 220 and BIOL 225 or equivalent.
Wetlands typically occur at the nexus between terrestrial and open water habitats, with some notable exceptions. All wetlands, however, exhibit distinct features that are best described by the unique hydrologic conditions, soils development, and plant species that evolved to occupy these ecosystems. In this course, we will explore how water, soils and plants combine to create different wetland types, from

coastal saltwater marshes to bogs to prairie potholes to inland freshwater swamp forests. Field trips to different local wetland ecosystems will supplement lecture materials. Because of the ecological and economic importance of wetlands in providing various habitat functions for wildlife and ecosystem services to humans, we will review the history of wetland destruction, creation/restoration, and legal protection. Cross-listed with BIOL 427

**BIOL 532 - Principles of Animal Physiology**

*Spring (4) Heideman. Prerequisite(s):* BIOL 302, or BIOL 345 and PSYC 313 and BIOL 310
The function of the animal as a whole as indicated by the physiology and interrelationships of different organs and organ systems. The emphasis is on vertebrates, with comparative examples from selected invertebrates. Three class hours, four laboratory hours.

**BIOL 533 - Developmental Biology**

*Fall or Spring (3) Staff. Prerequisite(s):* BIOL 220, BIOL 225, and BIOL 310 or equivalent. *Note: Not offered in 2019-2020.*
An introduction to embryonic and postembryonic developmental processes in animals emphasizing cellular differentiation, the generation of form and shape, growth regulation, cellular recognition and communication, molecular control mechanisms of gene expression, developmental neurobiology, and cancer. Three class hours.

**BIOL 536 - Advanced Cell Biology**

*Fall (3) Shakes. Prerequisite(s):* BIOL 310 or equivalent. *Note: Not offered in 2019-2020.*
An in-depth study of a specific topic in cell biology based on readings from the current primary literature. Topics will vary but may include the cytoskeleton or cell signaling. Three class hours.

**BIOL 538 - Immunology Laboratory**

*Spring (1) Zwollo. Prereq/Corequisite(s):* BIOL 537.
An introduction to current techniques available to study immune responses in mice. Includes tissue culture of lymphocytes, measuring antibody levels using ELISA techniques, and detection of proteins expressed during lymphocyte development using Western blot analyses.

**BIOL 542 - Molecular Genetics**

*Spring (3) Allison. Prerequisite(s):* BIOL 220, 225, 310 or permission of instructor.
This course gives a comprehensive introduction to molecular genetics emphasizing genome organization, DNA replication and repair, synthesis of RNA and proteins, regulation of prokaryotic and eukaryotic gene expression, epigenetics, RNA processing, molecular genetics of cancer, DNA biotechnology and human gene therapy. Three class hours.

**BIOL 543 - Molecular Genetics Laboratory**

*Spring (1) Allison. Prereq/Corequisite(s):* BIOL 542.
Experiments illustrating current techniques in molecular genetics, including basic cloning, transformation of bacteria with recombinant DNA, plasmid and genomic DNA purification, gel electrophoresis, restriction digests, DNA labeling, Southern transfer, PCR and green fluorescent protein expression in transfected mammalian cells. Three laboratory hours.

**BIOL 545 - Geographical Information System for Biologists**

*Fall. (3) Leu.*
This hands-on course will integrate Geographical Information Systems into biological research. Emphasis

will be on developing spatial metrics, comparing cell or land cover patterns across spatial or temporal scales, classifying satellite or medical imagery, and modeling species distributions.
Cross-listed with BIOL 445

**BIOL 546 - Nuclear Structure and Gene Activity**

*Spring (3) Allison. Prerequisite(s):* BIOL 442, or permission of instructor. *Note: Not offered in 2019-2020.*
An in-depth advanced exploration of the structure of the nucleus and molecular mechanisms of eukaryotic gene regulation, based on readings from the current primary literature. Topics will include mechanisms regulating nuclear import and export of transcription factors and RNA, the role nuclear architecture plays in gene activity and RNA processing, and how failure to appropriately coordinate these processes leads to abnormal or diseased states. Three class hours.

**BIOL 549 - Sexual Selection**

*Spring (1-4) Swaddle.*
Areas of special current research interest presented by resident and visiting faculty members as opportunity and demand arise. (Hours to be arranged.) *This course may be repeated for credit.*

**BIOL 560 - Stem Cell Research**

*Spring. (3) Wawersik.*
An in-depth exploration of the field of stem cell research ranging from basic stem cell behavior and regulation, to stem cell therapies and cancer, as well as ethics and government oversight. Topics are based around readings of primary literature, with emphases placed on evaluating the validity of data as well as scientific communication through written and oral presentation. Cross-listed with BIOL 460

**BIOL 566 - Directed Studies**

*Fall and Spring (variable 3-4 credits) Graded Pass/Fail*
No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated for credit.*

**BIOL 601 - Introduction to Graduate Studies**

*Fall (3) Staff.*
This course is required of all biology graduate students. This is a graduate only course designed to expose new students to a range of techniques and skills that will facilitate their involvement in independent research and graduate studies in biology. Students will receive training in critically reviewing the primary literature, developing research questions, research design and data analysis, oral and written presentations, and the responsible and ethical conduct of research, including discussions of fabrication, falsification, and plagiarism. Students will author both a grant and preliminary research proposal.

**BIOL 602 - Research Design and Methods**

*Fall (1-3) Staff.*
This three module course complements BIOL 601 by focusing on techniques and skills that will facilitate successful thesis research. All students take the initial half-semester module which focuses on best practices for statistically robust experimental design (replication, sample size, data independence). The other two modules are offered during the second half of the semester. The quantitative module covers data exploration and data management, and introduces students to statistical analyses in Research. The molecular module covers principles and pitfalls of cell and molecular techniques that are directly relevant to the students enrolled.

**BIOL 680 - Advanced Topics in Biology**

*Fall and Spring (1-4) Staff.*
Areas of special current research interest presented by resident and visiting faculty members as an opportunity and demand rise. *This course may be repeated for credit.*

**BIOL 682 - Research Seminar**
*Fall and Spring (1) Staff.*
Presentations on and discussions of selected biological topics by graduate students. One class hour. *This course may be repeated for credit up to a maximum of 4 credits.*

**BIOL 685 - Colloquium**
*Fall and Spring (variable 0-2 credits) Graded Pass/Fail*
No credits earned in this course may be applied to the number of credits required for a degree. *This course may be repeated.*

**BIOL 690 - Problems in Biology**
*Fall and Spring (3) Staff. Prerequisite(s):* Consent of Departmental Graduate Committee.

**BIOL 695 - Directed Thesis Master's Research**
*Fall and Spring (variable 3-9) Staff. Graded Pass/Fail. Note: Students who are not submitting a master's thesis may not use this course to satisfy degree requirements.*
Students design and conduct research in support of their master's thesis under the direction of a faculty advisor. *This course may be repeated, but no more than 9 semester credit hours may be used to satisfy degree requirements for submitting a master's thesis.*

**BIOL 700 - Thesis**
*Fall and Spring (variable 1-12) Staff. Graded :Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the thesis.*
Students finish the research for and the writing of their master's thesis under the direction of a faculty advisor. Students who are not submitting a master's thesis may not use this course to satisfy degree requirements. *This course may be repeated, but no more than 6 semester credit hours may be used to satisfy degree requirements for a thesis master's (only)*

**CHEM 501 - Advanced Physical Chemistry**
*Spring (3) Wustholz.*
Quantum chemistry and molecular spectroscopy.

**CHEM 502 - Advanced Inorganic Chemistry**
*Spring (3) Pike.*
Structure, bonding, symmetry and spectroscopy of metal-containing compounds.

**CHEM 503 - Advanced Organic Chemistry**
*Fall (3) Scheerer.*
A structure-reactivity approach to reaction mechanism and synthesis.

**CHEM 504 - Advanced Analytical Chemistry**
*Spring (3) O'Brien.*
Advanced topics in analytical chemistry.

**CHEM 508 - Computational Chemistry**

*Spring (3) Poutsma. Note: Not offered in Spring 2020.*
Principles and applications of computational methods for the determination of molecular structure and energy.

**CHEM 511 - Polymer Science I**
*Fall (3) Staff. Note: Not offered in Fall 2019.*
An introduction to the chemical aspects of polymer science at the molecular level. Topics include the preparation, modification, degradation, and stabilization of polymers. Reaction mechanisms are stressed.

**CHEM 515 - Advanced Biochemistry**
*Fall (3) Young.*
A continuation of the study of biological processes on a molecular level begun in CHEM 313 or BIOL 314. Membrane biochemistry, molecular immunology, protein structure and function, biochemical applications of genetic engineering, and other topics of current interest.

**CHEM 519 - Bioinorganic Chemistry**
*Fall (3) Bebout. Prerequisite(s):* One semester of Biochemistry, equivalent to CHEM 314 or BIOL 314
An intensive examination of current research approaches in the field of bioinorganic chemistry. Students will gain experience in reading and critically analyzing articles from the primary literature.

**CHEM 556 - Mass Spectrometry**
*Spring (3) Poutsma. Note: Not offered in Spring 2020.*
Principles and applications of modern mass spectrometric methods in chemistry. Topics include: instrumentation, spectral interpretation, gas-phase ion chemistry and spectroscopy, proteomics and metabolomics, forensic applications, and stable isotope chemistry.

**CHEM 557 - Organic Synthesis**
*Spring (3) Hinkle.*
An advanced treatment of organic synthetic methods which includes examples of natural products preparations.

**CHEM 558 - Organic Spectroscopy**
*Fall (3) Abelt.*
Theory and application of spectroscopic methods to the analysis of organic compounds. Topics include absorption, fluorescence, infrared, and proton and carbon nuclear magnetic resonance spectroscopies with an emphasis on structure elucidation and other practical applications.

**CHEM 566 - Directed Study**
*Fall and Spring (variable 3-4) Staff. Graded Pass/Fail.*
No credits earned in this course may be applied to the number of credits required to satisfy graduate degree credits. *This course may be repeated.*

**CHEM 622 - Quantitative Materials Characterization**
*Fall (4) Staff.*
This course presents a wide variety of means by which the properties and characteristics of materials can be experimentally determined. These include electrical, optical, acoustic, thermal, spectroscopic, and resonance methods. The objective is to discuss these separate means under the umbrella of fundamentals of interactions of matter with particles and waves. The course will address issues of data acquisition, such as sampling, discretization, and signal processing. Applications of these techniques to research in materials development, synthesis, processing, and in situ manufacturing. Cross-listed with APSC 622

**CHEM 623 - Materials Science of Surfaces and Interfaces**

*Spring (3) Staff. Prerequisite(s):* Consent of the Instructor
Fundamental and applied aspects of metal, inorganic, polymer and other organic surfaces. Solid/solid, solid/liquid and solid/vapor interfaces. Their structure and defects, thermodynamics, reactivity, electronic and mechanical properties. Applications depend on class interests, but have previously included microelectronics, soils, catalysis, colloids, composites, environment sensitive mechanical behavior, UHV single crystal studies, materials durability, batteries and fuel cells, vacuum science and technology, and surface bioactivity. Cross-listed with APSC 623

**CHEM 640 - Membrane Proteins: Structure, Function, and Biomedical Research**

*Fall (3) Staff. Prerequisite(s):* Consent of the instructor. *Note: Chem 415 (Advanced Biochemistry) or the equivalent highly recommended.*
Biological membranes and their constituents are involved in virtually all processes vital to living organisms, including nutrient uptake, information transfer between the inside and outside of the cell, and the mediation of vital activities such as nerve impulse propagation and hormone signaling. It is therefore not surprising that our modern view of biological cells is profoundly related to the descriptions of their membranes and that membrane-associated receptors, enzymes, and ion channels are prime drug targets. This multi-disciplinary course will cover the interplay between the three-dimensional structures, dynamics, and functions of membrane proteins and lipids, the technical approaches used to characterize their functions and active sites under physiologically-relevant conditions, and the therapeutic potential of targeting membrane proteins to treat a broad range of illnesses, such as neurological disorders, infectious diseases, inflammation, cystic fibrosis, autoimmune disorders, and cancer. Cross-listed with APSC 640

**CHEM 650 - Graduate Studies in Chemistry**

*Fall and Spring (2) Pike.*
This course sequence, designed for the first year graduate student, acquaints them with the state of the art in chemical research with a focus on examination of the primary literature and training in oral presentations. Provides training in the responsible and ethical conduct of research, including discussions of fabrication, falsification, and plagiarism. Requires attendance at departmental colloquia.

**CHEM 651 - Graduate Studies in Chemistry II**

*Fall and Spring (1) Abelt. Prerequisite(s):* CHEM 650
Continuation of CHEM 650

**CHEM 652 - Topics in Physical Chemistry**

*Spring (3) Staff.*

**CHEM 654 - Topics in Inorganic Chemistry**

*Spring (3) Staff.*

**CHEM 655 - Topics in Analytical Chemistry**

*Fall (3) Staff.*

**CHEM 656 - Topics in Organic Chemistry**

*Fall (3) Staff.*

**CHEM 664 - Topics in Biochemistry**

*Fall (3) Staff.*

**CHEM 666 - Directed Studies**

*Fall and Spring (1-12) Staff. Graded Pass/Fail.*
No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated.*

### CHEM 693 - Introduction to Graduate Research

*Fall and Spring (3 or 6) Staff.*
This course introduces students to graduate research. Students design and conduct research with a faculty advisor. *This course may be repeated once, only for 3 semester credit hours, and only if no more than 3 semester credit hours have been earned already for 693.*

### CHEM 695 - Directed Thesis Master's Research

*Fall and Spring (variable 3-9) Staff. Graded Pass/Fail. Note: Students who are not submitting a master's thesis may not use this course to satisfy degree requirements.*
Students design and conduct research in support of their master's thesis under the direction of a faculty member. *This course may be repeated, but no more than 9 semester credit hours may be used to satisfy degree requirements for submitting a master's thesis.*

### CHEM 696 - Summer Graduate Research

*Summer (3) Staff. Graded Pass/Fail. Prerequisite(s):* permission of instructor.
*This course may be repeated.*

### CHEM 700 - Thesis

*Fall and Spring (variable 1-12) Staff. Graded :Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the thesis. Note: Students who are not submitting a master's thesis may not use this course to satisfy degree requirements.*
Students finish the research for and the writing of their master's thesis under the direction of a faculty advisor. *This course may be repeated, but no more than 6 semester credit hours may be used to satisfy degree requirements for a thesis master's (only).*

### CSCI 515 - Systems Programming

*Spring 3 Prerequisite(s):* Computer Organization.
The design and implementation of programs which provide robust and efficient services to users of a computer. Macro processors; scripting languages; graphical interfaces; network programming. Unix and X are emphasized. Cross-listed with [CSCI 415]

### CSCI 516 - Introduction to Machine Learning

*(3) Prerequisite(s):* Algorithms, Linear Algebra
Machine learning (ML) is the study of predictive models whose performance can be improved by incorporating additional data or experience. This course will give an overview of the theory and practice of machine learning, focusing primarily on deterministic ML methods for classifcation and regression. Topics include decision trees, linear and nonlinear regression, artifcial neural networks, support vector machines and kernel methods, ensemble methods, clustering methods, dimension reduction techniques, mixture models, and naive Bayes methods. We will also look at practical concerns such as performance evaluation, data preprocessing, and hyperparameter tuning. Cross-listed with CSCI-416

### CSCI 517 - Computer Animation

*(3) Prerequisite(s):* Python, programming, and data structures
Introduction to principles and practice of 3D computer animation within the context of digital production. Primary topics include modeling, keyframe animation, procedural animation, shading, rigging, and effects. Course projects will be time-intensive and completed using production-level software, complemented by Python scripting. Cross-listed with CSCI-417

**CSCI 520 - Elementary Topics**
*Fall or Spring 1, 2, or 3 credits, depending on material*
Will be published in the registration schedule. A treatment of elementary topics of interest not routinely covered by existing courses. Material may be chosen from various areas of computer science. *This course may be repeated for credit.*

**CSCI 523 - Finite Automata and Theory of Computation**
*Fall 3 Prerequisite(s):* Linear Algebra, Algorithms.
Theory of sequential machines and finite automata. Turing machines, recursive functions, computability of functions.

**CSCI 524 - Computer Architecture**
*Fall 3 Prerequisite(s):* Computer Organization.
An introduction to the principles of computer design. Topics include data representation, including adders, signed integer arithmetic, floating point representation and character representation. A study of microprocessor, minicomputer and mainframe architecture including clocks, memory management, bus communication and input/output.

**CSCI 526 - Simulation**
*Fall 3 Prerequisite(s):* Calculus, Algorithms.
An introduction to simulation. Discrete and continuous stochastic models, random number generation, elementary statistics, simulation of queuing and inventory systems, Monte Carlo simulation, point and interval parameter estimation. Selected applications.

**CSCI 527 - Computer Graphics**
*Fall 3 Prerequisite(s):* Linear Algebra, Algorithms, Computer Organization.
An introduction to computer graphics and its applications. Topics include coordinate systems, the relationship between continuous objects and discrete displays, fill and flood algorithms, two-dimensional geometric transformations, clipping, zooming, panning, and windowing. Topics from three-dimensional graphics include representations for objects, geometric and projection transformations, geometric modeling, and hidden line/surface removal algorithms.

**CSCI 530 - Computer Languages**
*Fall and Spring 1 or 2 credits, depending on material Prerequisite(s):* Will be published in the preregistration schedule.
Topics include syntax, semantics, and pragmatics of one computer language as well as aspects of that language's intended areas of application which influenced its design. The language studied will vary; students may repeat the course for different languages.

**CSCI 532 - Web Programming**
*Spring 3 Prerequisite(s):* CSCI 421. May be taken for Audit.
Overview of the Internet. Markup languages: HTML, CSS, XML. Server-side programming languages: Perl/Python, PHP, Java. Other topics include: N-tier programming, security, database access, XML processing. Cross-listed with CSCI-432

**CSCI 534 - Network Systems and Design**
*Spring 3 Prerequisite(s):* Systems Programming, or permission of instructor.
The Internet; principles and design of network applications, including web servers and multimedia;

transport, network and data link layers; network security; network performance evaluation and capacity planning.

**CSCI 535 - Software Engineering**

*Spring 3 Prerequisite(s):* Programming Languages.
The software life cycle. Software design methodologies. Testing and maintenance. Programming teams.

**CSCI 542 - Compiler Construction**

*Fall 3 Prerequisite(s):* Algorithms, Computer Organization, Programming Languages.
Principles and tools for the construction of translators for programming languages. Topics include lexical analysis, block structure, grammars, parsing, error recovery, program representation, run-time organization and code generation.

**CSCI 544 - Principles of Operating Systems**

*Fall 3 Prerequisite(s):* Algorithms, Computer Organization, Systems Programming.
The conceptual view of an operating system as a collection of concurrent processes; semaphores, monitors, and rendezvous. Real and virtual memory organization, resource allocation, file organization and management, processor allocation and management, and external device management.

**CSCI 554 - Computer and Network Security**

*Spring 3 Prerequisite(s):* Computer organization, programming, basics of operating systems, networks and computer architecture
An introduction to the principles and practices of cryptography, network security, and secure software. Cryptography topics include: basic methods, key distribution and protocols for authenticated and confidential communications. The practice of network security includes: Kerberos, PGP, public key infrastructures, SSL/TLS, IP security, intrusion detection, password management, firewalls, viruses and worms, and Denial of Service (DoS) attacks.

**CSCI 564 - Applied Cybersecurity**

*Fall or Spring (3) Prerequisite(s):* Unix/Linux command line; Basic networking; Languages: C, Javascript, PHP, SQL
This is a systems-level security course involving hands-on labs, lecture, student presentations and a term project. Students will learn about secure systems design, vulnerabilities and how to defend against attacks to network, hardware and software components covering security issues and defenses from IoT to the cloud. Lab exercises will teach students how vulnerabilities work and how to document and mitigate them.. Cross-listed with CSCI 464

**CSCI 566 - Directed Studies**

*Fall and Spring variable 3-4 credits Graded Pass/Fail*
No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated.*

**CSCI 597 - Problems in Computer Science**

*Fall, Spring and Summer 1 Graded Pass/Fail.*
Supervised projects selected to suit the needs of the graduate student, including those wishing to perform an internship as part of the Curricular Practical Training Program. Projects to be chosen in consultation with the student's advisor. Acceptable research outlines and project reports are required. Students may count credits received in only one offering of this course toward the number of credits required for their degree.

**CSCI 608 - Decision Theory**
*3 Prerequisite(s):* Equivalent of MATH 351.
Development and use of systematic procedures for assisting decision makers in evaluating alternative choices. Emphasis is on problem formulation, uncertainty and risk assessment, Bayes, minimax and other decision rules and applications. Problems will be solved using appropriate software tools.

**CSCI 616 - Stochastic Models in Computer Science**
*Fall or Spring 3 Prerequisite(s):* Discrete Mathematics, Calculus.
An introduction to stochastic models, problem solving, and expected value analysis as applied to algorithms and systems in computer science. Topics include probability, discrete and continuous random variables, discrete-time Markov chains, and continuous time birth-death processes.

**CSCI 618 - Models and Applications in Operations Research**
*3 Prerequisite(s):* Equivalent of MATH 323.
A study of realistic and diverse Operations Research problems with emphasis upon model formulation, interpretation of results and implementation of solutions. Topics include applications of linear programming, goal programming, decomposition of largescale problems, and job scheduling algorithms. Problems will be solved using appropriate software tools.

**CSCI 626 - Data Analysis and Simulation**
*Fall or Spring 3 Prerequisite(s):* Some knowledge of probability and statistics.
Basic statistical analysis techniques for experimental data generation and collection, aiming at design, analytic modeling and implementation of systems. Covers basics from the areas of statistics, simulation, event queueing, and their application to Internet systems, data centers and cloud computing, storage systems, distributed systems, and hardware/software design.

**CSCI 628 - Linear Programming**
*Fall 3 Prerequisite(s):* Equivalent of MATH 211. *Corequisite(s):* Equivalent of CSCI 241.
Theory and applications of linear programming. Topics include the simplex method, duality theory, sensitivity analysis and interior point methods. Problems will be solved using appropriate software tools.

**CSCI 634 - Advanced Computer Networking**
*Fall or Spring 3 Prerequisite(s):* Computer Networks, or permission of the instructor.
Covers various aspects of computer networking: Internet design principles, wireless, mobile, and sensor networks, MAC protocols, routing, congestion/flow control, network topology and traffic analysis, network security, web service, and overlay networks.

**CSCI 635 - Advanced Software Engineering**
*Fall or Spring 3 Prerequisite(s):* an undergraduate course in software development.
Covers a range of topics that challenge today's software development teams: the design of large systems, the necessity to adjust and maintain existing software systems over a longer than expected life cycle, the urge for correctness, robustness and performance of software.

**CSCI 638 - Nonlinear Programming**
*3 Prerequisite(s):* CSCI 628 and the equivalent of MATH 212.
Topics include unconstrained optimization, nonlinear least-squares, feasible-point methods, and penalty and barrier methods, with an emphasis on effective computational techniques.

**CSCI 648 - Network Optimization**

*3 Prerequisite(s):* CSCI 628.
Network flow theory and algorithms, including transportation, maximum flow shortest path and minimum spanning tree problems. Applications to a variety of areas are also stressed. Problems will be solved using appropriate software tools.

**CSCI 649 - Computational Methods**

*Fall or Spring 3 Prerequisite(s):* undergraduate Calculus and Linear Algebra.
Covers a wide spectrum of numerical algorithms and techniques for solving real world computational problems. Topics include non-linear and linear equations, interpolation, integration, differentiation, and the central effects of floating point arithmetic. Both theory and programming aspects are covered.

**CSCI 652 - Advanced Compiler Construction**

*Fall or Spring 3 Prerequisite(s):* Finite Automata, Compiler Construction.
A course on compiler technology with focus on program code optimizations, generation, and parallelization. Topics include data flow analysis, code transformations, dependence theory, parallelization and vectorization, register and cache management, and interprocedural analysis.

**CSCI 653 - Analysis of Algorithms**

*Fall or Spring 3 Prerequisite(s):* Algorithms.
Algorithm design techniques including divide-and-conquer, dynamic programming and greedy method. Analysis methods including worst case and average case. Additional topics chosen from among amortized analysis, lower bound theory and NP-completeness.

**CSCI 654 - Advanced Computer Architecture**

*Fall or Spring 3 Prerequisite(s):* Computer Architecture.
A study of high performance computer architecture with emphasis on experiments and simulation. Topics include pipelining, memory hierarchies, I/O, multiprocessors, and new designs for performance improvements.

**CSCI 658 - Discrete Optimization**

*Spring 3 Prerequisite(s):* CSCI 628 and the equivalent of CSCI 303.
Topics include relaxation techniques, constructive heuristics, improving search techniques (simplex method simulated annealing, tabu search), branch and bound schemes, and valid inequalities for branch and cut methods. Problems will be solved using appropriate software tools.

**CSCI 663 - Theory of Computation**

*Fall or Spring 3 Prerequisite(s):* Finite Automata and a strong mathematical background.
An in depth study of Turing machines and the equivalent computational models such as recursive function theory and lambda calculus. Church's thesis and incompleteness results. Computational complexity including NP-completeness.

**CSCI 664 - Advanced Operating Systems**

*Fall or Spring 3 Prerequisite(s):* Operating Systems.
Advanced topics in the design and implementation of modern operating systems, especially those which support a distributed computer environment. Topics include: synchronization, mutual exclusion, language support, process and thread management, scheduling, remote procedure call, fault tolerance, network and parallel file systems, security, modeling and performance.

**CSCI 666 - Directed Studies**

*Fall and Spring (1-12) Staff Graded Pass/Fail.*
No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. Cross-listed with CSCI 766. *This course may be repeated.*

**CSCI 667 - Concepts of Computer Security**
*Fall and Spring (3) Prerequisite(s):* IP networks, modern operating systems, discrete mathematics, basic system theory
The course will cover topics including (but not limited to) network security, authentication, security protocol design and analysis, security modeling, key management, program safety, intrusion detection, DDoS detection and mitigation, architecture/operating systems security, security policy, web security, and other emerging topics.

**CSCI 668 - Reliability**
*3 Prerequisite(s):* equivalent of MATH 401 and CSCI 141.
Introduction to probabilistic models and statistical method used in analysis of reliability problems. Topics include models for the lifetime of a system of components and statistical analysis of survival times data. Problems will be solved using appropriate software tools.

**CSCI 674 - GPU Architectures and Programming**
*Prerequisite(s):* computer architecture and design
This course provides an in-depth understanding of the micro-architectural and architectural details of a general-purpose graphics processing unit (GPU). A range of top-tier architecture conference and journal papers are discussed to understand the important research issues associated with the GPU architectures. Students will be tested via simulation-based assignments, oral/written presentation skills, and written examinations. In addition, students will also be required to complete a semester-long research project.

**CSCI 678 - Statistical Analysis of Simulation Models**
*3 Prerequisite(s):* equivalent of MATH 351, MATH 401 and CSCI 141.
This course introduces statistical techniques used in the analysis of simulation models. The first half of the course develops techniques for determining appropriate inputs to a simulation model, and the last half develops analysis techniques that are applied to the output of a simulation model.

**CSCI 680 - Topics**
*Fall and Spring (1,2 or 3 credits, depending on the material covered)*
A treatment of Master's level topics of interest not routinely covered by existing courses. Material may be chosen from various areas of computer science. *This course may be repeated for credit.*

**CSCI 685 - Colloquium**
*Fall and Spring (0-2) Graded Pass/Fail.*
Each full-time graduate student is required to enroll in this course. No credits earned in this course may be applied to the number of credits required for a degree. This course includes training in the responsible and ethical conduct of research, as well as discussions of fabrication, falsification, and plagiarism.
Cross-listed with CSCI 785. *This course may be repeated.*

**CSCI 688 - Topics in Computational Operations Research**
*3*
A treatment of Master's level topics of interest not routinely covered by existing courses. Material may be chosen from various areas of computational operations research. *May be repeated for different topics. This course may be repeated for credit.*

### CSCI 690 - Readings in Computer Science

*Fall or Spring (1, 2, or 3 credits, depending on the material covered) Graded Pass/Fail. Prerequisite(s):* Permission of the instructor and the Chair.
A description of the intended contents of the readings course must be approved by the Chair before the student may register for the course. Students electing to satisfy M.S. requirements by taking 24 credits and writing a thesis may not count credits received in this course toward the required 24. Students electing to satisfy M.S. requirements by taking 32 credits may count credits received in only one offering of this course toward the required 32. *This course may be repeated for credit.*

### CSCI 695 - Directed Thesis Master's Research

*Fall and Spring (variable 3-9) Graded Pass/Fail. Note: Students who are not submitting a master's thesis may not use this course to satisfy degree requirements.*
Students design and conduct research in support of their master's thesis under the direction of a faculty member. *This course may be repeated, but no more than 9 semester credit hours may be used to satisfy degree requirements for submitting a master's thesis.*

### CSCI 698 - Simulation and Modeling Project in Computational Operations Research

*Fall 3 Prerequisite(s):* equivalent of MATH 401 and CSCI 241.
Simulation model building in a high-level simulation language (SIMAN) with C++/C interface. Topics include network, discrete-event, and continuous modeling approaches. Interfaces between the three modeling approaches are presented. Familiarity with univariate and multivariate probability distributions is required for input modeling and simulation output analysis. Course culminates in a semester project in SIMAN.

### CSCI 700 - Thesis

*Fall and Spring (variable 1-12) Graded :Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the thesis.*
Students finish the research for and the writing of their master's thesis under the direction of a faculty advisor. Students who are not submitting a master's thesis may not use this course to satisfy degree requirements. *This course may be repeated, but no more than 6 semester credit hours may be used to satisfy degree requirements for a thesis master's (only).*

### CSCI 708 - Research Project in Computational Operations Research

*Fall and Spring (2,2) Graded Pass/Fail. Prerequisite(s):* Permission of Graduate Director.
Students will select a faculty advisor and committee in their area of specialization within computational operations research, prepare a research proposal abstract for approval by the department's director of graduate studies, undertake a research project, and write a paper describing their research. This course is normally taken after a student has completed 18 credit hours toward the M.S. degree with a specialization in computational operation research. Not open to students who receive credit for either CSCI 700 or CSCI 710. *May not be repeated. Semester credit hours earned may be used to satisfy degree requirements for a non-thesis master's (only).*

### CSCI 710 - Research Project

*Fall and Spring 2,2 Graded :Grade of either G or U converts to P upon submission and acceptance of the paper documenting the independent research project. Prerequisite(s):* Permission of Graduate Director.
Students will select a faculty advisor and committee in their area of research interest, prepare a research proposal abstract for approval by the department's director of graduate studies, undertake a research project, and write a paper describing their research. This course is normally taken after a student has completed 18 credit hours toward the M.S. degree with a specialization in computational operation research. Not open to students who receive credit for either CSCI 700 or CSCI 708.
*May not be repeated. Semester credit hours earned may be used to satisfy degree requirements for a non-thesis master's (only).*

**CSCI 712 - Advanced Compiler Construction II**
*Fall or Spring 3 Prerequisite(s):* CSCI 542, CSCI 652.
A project-oriented course involving compilers or compiler generators. Possible topics include syntactic error recovery, semantic analysis, code optimization and code generation.

**CSCI 723 - Advanced Analysis of Algorithms**
*Fall or Spring 3 Prerequisite(s):* CSCI 653 or consent of the instructor.
Advanced aspects of the design and analysis of computer algorithms. The study of probabilistic algorithms and parallel algorithms for solving problems from graph theory, geometry, and number theory. Lower bound theory. Intractability theory and its application to modern cryptography.

**CSCI 726 - Discrete Event Simulation**
*Fall or Spring 3 Prerequisite(s):* CSCI 616, CSCI 626.
Methods of discrete-event simulation. Markov chains. Simulation of open and closed networks of queues. Simulation of non-stationary Poisson processes. Transient and steady-state analysis. Event list algorithms and data structures. Theoretical and empirical tests of randomness. Selected applications.

**CSCI 734 - Distributed Computing Systems**
*Fall or Spring 3 Prerequisite(s):* CSCI 544 or equivalent.
Time and order in distributed systems. Synchronous and asynchronous systems. Models of faulty behavior in distributed systems. Paradigms of distributed computing: network mutual exclusion, deterministic agreement (Byzantine and fail-stop), elections, global state acquisition, atomic transactions. Issues in programming distributed systems. Reliable distributed systems. Distributed databases. Selected case studies.

**CSCI 746 - Discrete-State Stochastic Models**
*Fall or Spring 3 Prerequisite(s):* CSCI 616, CSCI 626.
Logic, performance, and reliability analysis of discrete-state systems. Exploration of the state space. Queuing networks, fault trees, reliability block diagrams, task graphs, Petri nets and domain-oriented languages. Underlying stochastic processes, solutions and approximations.

**CSCI 749 - Numerical Algorithms**
*Fall or Spring 3 Prerequisite(s):* CSCI 649, or permission of the instructor.
In-depth study of modern numerical algorithms central to solving many scientific and engineering problems, and of the techniques used to develop and analyze those algorithms, with an emphasis on algorithmic issues.

**CSCI 754 - Performance Evaluation of Computer Systems**
*Fall or Spring 3 Prerequisite(s):* CSCI 526, CSCI 626, or permission of the instructor.
Analytical modeling techniques and their application in computer system performance modeling and prediction. Modeling of resource allocation policies in parallel systems, web server analysis, measurements and workload characterization of parallel computations and multimedia applications, hardware/software design, and bottleneck analysis.

**CSCI 766 - Directed Studies**
*Fall and Spring (1-12) Staff Graded Pass/Fail*
No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. Cross-listed with CSCI 666

**CSCI 774 - Parallel Computing**

*Fall or Spring 3 Prerequisite(s):* CSCI 652, CSCI 653, or permission of the instructor.
This course introduces parallel computation as a means of achieving high performance in modern parallel architectures. A unified approach is followed, where the design of parallel algorithms, their implementation and performance evaluation is studied in relation to the underlying system.

**CSCI 780 - Advanced Topics**

*Fall or Spring (1, 2, or 3 credits, depending on material) Prerequisite(s):* Will be published in the preregistration schedule.
A treatment of doctoral-level topics of interest not routinely covered by existing courses. Material may be chosen from various areas of computer science. *This course may be repeated for credit.*

**CSCI 785 - Colloquium**

*Fall and Spring (1) Graded Pass/Fail.*
Each full-time graduate student is required to enroll in this course. No credits earned in this course may be applied to the number of credits required for a degree. This course includes training in the responsible and ethical conduct of research, as well as discussions of fabrication, falsification, and plagiarism. Cross-listed with CSCI 685. *This course may be repeated.*

**CSCI 790 - Readings in Computer Science**

*Fall or Spring (1, 2, or 3 credits, depending on the material covered) Graded Pass/Fail. Prerequisite(s):* Permission of the instructor and the Graduate Director.
A description of the intended contents of the readings course must be approved by the Graduate Director before the student may register for the course. Students electing to satisfy M.S. requirements by taking 24 credits and writing a thesis may not count credits received in this course toward the required 24. Students electing to satisfy M.S. requirements by taking 32 credits may count credits received in only one offering of this course toward the required 32. *This course may be repeated for credit.*

**CSCI 795 - Directed Dissertation Research**

*Fall and Spring (3-12) Staff. Graded Pass/Fail. Note: Students who are not submitting a dissertation may not use this course to satisfy degree requirements.*
Students design and conduct research in support of their dissertation under the direction of a faculty advisor. *This course may be repeated, but no more than 12 semester credit hours may be used to satisfy degree requirements for a student submitting a dissertation.*

**CSCI 800 - Dissertation**

*Fall and Spring (1-12) Staff. Graded :Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the dissertation.*
Students finish the research for and the writing of their dissertation under the direction of a faculty advisor. Students who are not submitting a dissertation may not use this course to satisfy degree requirements. *This course may be repeated, but no more than 24 semester credit hours may be used to satisfy degree requirements for a doctorate (only).*

**HIST 501 - Independent Study in History**

*Fall (3) Staff.*
An independent study course. *Course may be repeated for credit as long as there is no duplication of material.*

**HIST 502 - Independent Study in History**

*Spring (variable 3-4) Staff.*
An independent study course that may be repeated for credit as long as there is no duplication of material.

**HIST 566 - Directed Studies**

*Fall and Spring variable 3-4 credits Graded Pass/Fail*

No credit earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated.*

**HIST 590 - Topics in History**

*Fall and Spring (3) Staff.*

Topics change each year. Please consult the website www.wm.edu/history and the department office for the current listing of topics offered. *This course may be repeated for credit if there is no duplication of topic.*

**HIST 695 - Directed Thesis Master's Research**

*Fall and Spring (variable 3-9) Staff. Graded Pass/Fail. Note: Students who are not submitting a master's thesis may not use this course to satisfy degree requirements.*

Students design and conduct research in support of their master's thesis under the direction of a faculty advisor. *This course may be repeated, but no more than 9 semester credit hours may be used to satisfy degree requirements for a student submitting a master's thesis.*

**HIST 700 - Thesis**

*Fall and Spring (variable 1-12) Graded :Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the thesis.*

Students finish the research for and the writing of their master's thesis under the direction of a faculty advisor. Students who are not submitting a master's thesis may not use this course to satisfy degree requirements. *This course may be repeated, but no more than 6 semester credit hours may be used to satisfy degree requirements for a thesis master's (only).*

**HIST 701 - Historian's Craft**

*Fall (3) Staff. Note: This course is required for all entering graduate students.*

This seminar will serve as an introduction to historical method and theory. Students will ready works by influential historians and learn about major schools of historical thought. The course will address issues such as the relationship between history and other disciplines, the challenges and strengths of different historical methodologies, and the political and cultural contexts in which various approaches to history have developed.

**HIST 705 - Teaching History**

*Spring (1) Benes. Graded Pass/Fail.*

An exploration of the variety of teaching philosophies, techniques, and outcomes in higher education, taught by the faculties of History and American Studies. Required of all doctoral students who wish to serve as teaching fellows, but open to all degree candidates in those fields.

**HIST 706 - Dissertation Proposal Writing Class**

*Spring (3) Staff.*

This course is required for all third-year Ph.D. students. Students will draft and workshop their dissertation proposals.

**HIST 712 - Research Seminars**

*Fall and Spring (3) Staff. Note: Topics change each semester; see course schedule*

Topical seminars in which students will research and write a major paper, to be included in their M.A. research portfolio.

**HIST 715 - Readings Seminars**

*Fall and Spring (3) Staff. Prerequisite(s):* Open only to candidates for advanced degrees. *Note: Topics change each semester; see course schedule.*
Readings seminars explore, primarily through secondary literature, specific areas or aspects of history. *This course may be repeated for credit when topic differs.*

### HIST 766 - Directed Studies

*Fall and Spring (1-12) Staff Graded Pass/Fail*
No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated.*

### HIST 795 - Directed Dissertation Research

*Fall and Spring (3-12) Staff. Graded Pass/Fail. Note: Students who are not submitting a dissertation may not use this course to satisfy degree requirements.*
Students design and conduct research in support of their dissertation under the direction of a faculty advisor. *This course may be repeated, but no more than 12 semester credit hours may be used to satisfy degree requirements for a student submitting a dissertation.*

### HIST 800 - Dissertation

*Fall and Spring (1-12) Staff. Graded :Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the dissertation.*
Students finish the research for and the writing of their dissertation under the direction of a faculty advisor. Students who are not submitting a dissertation may not use this course to satisfy degree requirements. *This course may be repeated, but no more than 24 semester credit hours may be used to satisfy degree requirements for a doctorate (only).*

### PHYS 566 - Directed Studies

*Fall and Spring variable 3-4 credits Graded Pass/Fail*
No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated.*

### PHYS 581 - Topics in Physics

*Fall and Spring (variable) Staff.*
Special topics of current interest. *This course may be repeated for credit when the instructor determines there will not be a duplication of material.*

### PHYS 600 - Independent Study

*Fall and Spring (3,3) Staff.*
Course concerning special topics in physics not covered in regular course offerings. *This course may be repeated for credit if instructor determines there will be no duplication of material.*

### PHYS 601 - Classical Mechanics

*Fall 4 Qazilbash.*
The mechanics of particles and rigid bodies, methods of Lagrangian and Hamiltonian mechanics, relativistic mechanics, approximation techniques.

### PHYS 603 - Mathematical Physics

*Fall 4 Dudek.*
Complex variables and analytic functions. Vector spaces (finite dimensional and infinite dimensional), operators and matrix representations.

**PHYS 610 - Classical Electricity and Magnetism-I**

*Spring 4 Orginos.*

Electrostatics. Solution of boundary value problems. Green's functions and direct solution of Laplace's equation. Magnetostatics and steady currents. Maxwell's equations and plane wave solutions.

**PHYS 611 - Classical Electricity and Magnetism-II**

*Fall 3 Rossi. Prerequisite(s):* PHYS 610.

Waves inside conducting boundaries. Radiation from simple current systems, spherical waves and multipole radiation. Covariant formulation of electromagnetism. Interaction of radiation with matter.

**PHYS 621 - Quantum Mechanics - I**

*Fall 4 Krakauer.*

Axiomatic development of wave mechanics and the Schroedinger equation in one and three dimensions; wave packets; spin and angular momentum.

**PHYS 622 - Quantum Mechanics - II**

*Spring 4 Rossi. Prerequisite(s):* PHYS 621.

Scattering theory; matrix methods; symmetry; perturbation theory and other approximate methods; identical particles; relativistic wave equations and their applications.

**PHYS 630 - Statistical Physics and Thermodynamics**

*Spring 4 Vahala. Prerequisite(s):* PHYS 601, PHYS 621.

Statistical ensembles and averages, classical equilibrium, thermodynamics and statistical mechanics, quantum statistics, kinetic theory and transport properties.

**PHYS 651 - Teaching Physics**

*Fall and Spring 2 Dulli. Graded Pass/Fail.*

Designed for entering students teaching a lab or tutoring one of our undergraduate courses. Respective faculty will instruct students in relevant ways. *This course may be repeated for credit.*

**PHYS 685 - Colloquium**

*Fall and Spring 0-2 Nelson. Graded Pass/Fail.*

Includes presentations by invited speakers on areas of active research in physics. The course also will include an overview of physics research at William and Mary and training in the responsible and ethical conduct of research. No credits earned in this course may be applied to the number of credits required for a degree. *This course may be repeated.*

**PHYS 690 - Advanced Topics in Physics**

*Fall and Spring Hours and credits to be arranged. Staff.*

Special topics of current interest. This course may be repeated for credit when the instructor determines there will not be a duplication of material.

**PHYS 694 - Directed Research Topics**

*Fall and Spring (variable 3-12) Nelson.*

Students design and conduct research on a relevant topic with a faculty advisor. *This course may be repeated, but no more than 12 semester credit hours may be used to satisfy degree requirements.*

**PHYS 702 - Advanced Mathematical Physics**

*Spring 3 Staff. Prerequisite(s):* PHYS 603.
Differential equations, Green's functions, some hypergeometric functions, group theory, representation of groups.

**PHYS 721 - Quantum Field Theory - I**

*Fall 3 Monahan. Prerequisite(s):* PHYS 622.
Canonical quantization of scalar, spinor and vector fields; interacting field theories and Feynman diagrams; scattering theory; quantum electrodynamics and introduction to radiative corrections.

**PHYS 722 - Quantum Field Theory - II**

*Spring 3 Erlich. Prerequisite(s):* PHYS 721.
Functional integral quantization of field theories. Renormalization. Quantization of gauge theories. Spontaneous Symmetry Breaking and the Higgs mechanism.

**PHYS 741 - Condensed Matter Physics**

*Spring 3 Krakauer. Prerequisite(s):* PHYS 622, PHYS 630.
Introduction to the frontiers of condensed matter physics research; crystal structure, phonons, electrons, electric, optical, and magnetic properties, impurities, elementary excitations, band theory and experimental methods.

**PHYS 742 - Advanced Condensed Matter Physics**

*Spring 3 Prerequisite(s):* PHYS 741
Selected topics from the frontiers of condensed matter physics research that may include semiconductors, magnetism, superconductivity, topological states of quantum matter. Discussions of modern experimental and theoretical methods.

**PHYS 761 - Atomic and Molecular Processes**

*Fall and Spring 3 Staff. Prerequisite(s):* PHYS 622.
Theory of atomic structure; emission and absorption of radiation; fine and hyperfine structure; coupling schemes. Molecular structure and intermolecular forces; atomic and molecular collisions. Modern applications.

**PHYS 762 - Atomic and Molecular Processes**

*Fall and Spring 3 Staff. Prerequisite(s):* PHYS 622.
Theory of atomic structure; emission and absorption of radiation; fine and hyperfine structure; coupling schemes. Molecular structure and intermolecular forces; atomic and molecular collisions. Modern applications.

**PHYS 766 - Directed Studies**

*Fall and Spring (1-12) Nelson. Graded Pass/Fail*
No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated.*

**PHYS 772 - The Standard Model of Particle Physics**

*Spring 3 Stevens. Prerequisite(s):* PHYS 721 .
Gauge theory. Electroweak interactions and unification. Quantum Chromodynamics. Particle phenomenology.

**PHYS 773 - Topics in Nuclear and Particle Physics**

*Fall 3 Staff. Prerequisite(s):* PHYS 772.
Topics of current interest in strong, electromagnetic and weak interactions. *This course may be repeated for credit when the instructor determines there will not be duplication of material.*

**PHYS 783 - Plasma Physics**
*Fall 3 Staff.*
An introduction to plasma physics and magnetohydrodynamics. Particle orbit theory, macroscopic equations, waves in collisional and collisionless plasmas. Vlasov equation.

**PHYS 784 - Advanced Plasma Physics**
*Spring 3 Staff. Prerequisite(s):* PHYS 783.
Selected topics such as plasma waves in a magnetic field, waves in a bounded plasma, plasma kinetic theory, and plasma radiation.

**PHYS 786 - General Relativity and Cosmology**
*Spring 3 Staff.*
Introduction to general relativity, tensor analysis, gravitational field equations, gravitational waves, Schwarzschild and Kerr solutions, cosmological models, gravitational collapse.

**PHYS 790 - Advanced Topics in Physics**
*Fall and Spring Hours and credits to be arranged. Staff.*
Special topics of current interest. *This course may be repeated for credit when the instructor determines there will not be a duplication of material.*

**PHYS 795 - Directed Dissertation Research**
*Fall and Spring (3-12) Graded Pass/Fail. Note: Students who are not submitting a dissertation may not use this course to satisfy degree requirements.*
Students design and conduct research in support of their dissertation under the direction of a faculty advisor. *This course may be repeated, but no more than 12 semester credit hours may be used to satisfy degree requirements for a student submitting a dissertation.*

**PHYS 800 - Dissertation**
*Fall and Spring (1-12) Staff. Graded :Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the dissertation.*
Students finish the research for and the writing of their dissertation under the direction of a faculty advisor. Students who are not submitting a dissertation may not use this course to satisfy degree requirements. *This course may be repeated, but no more than 24 semester credit hours may be used to satisfy degree requirements for a doctorate (only).*

**PSYC 500 - Topics in Psychology**
*Fall and Spring (3) Staff.*
Course concerning special topics not covered in detail in regular course offerings. *This course may be repeated for credit when the instructor determines there will be no duplication of material.*

**PSYC 566 - Directed Studies**
*Fall and Spring (variable 3-4 credits) Graded Pass/Fail*
No credit earned in this course may be applied to the number of credits required to satisfy graduate degree requirements. *This course may be repeated for credit.*

**PSYC 618 - Professional Development Seminar**

*Fall (2) Dallaire.*
This course will foster the professional development of our M.S. students by holding weekly seminars over the first two semesters of the M.S. program. They will consist of readings and discussions of philosophy of science, research methodology and design, research ethics including fabrication, falsification and plagiarism, critical analysis of published studies, research presentation and applying to Ph.D. programs.

**PSYC 619 - Professional Development Seminar**
*Spring (2) Dallaire.*
This course will foster the professional development of our M.S. students by holding weekly seminars over the first two semesters of the M.S. program. They will consist of readings and discussions of philosophy of science, research methodology and design, research ethics including fabrication, falsification and plagiarism, critical analysis of published studies, research presentation and applying to Ph.D. programs.

**PSYC 631 - Advanced Statistics I**
*Fall (3) Kirkpatrick, Hilimire, Staff. Corequisite(s):* PSYC 631L.
The first part of the advanced two-course statistics sequence covering topics from basic descriptive and inferential statistics through multiple regression, analysis of variance, and the general linear model.

**PSYC 631L - Advanced Statistics I Laboratory**
*Fall (0) Kirkpatrick, Hilimire, Staff. Corequisite(s):* PSYC 631

**PSYC 632 - Research Methods**
*Fall (3) Forestell, Staff.*
This course provides in-depth coverage of experimental and correlational approaches to quantitative research. A primary aim is to facilitate publication in respected journals by helping students to anticipate the kinds of critiques likely to arise during the peer-review process. Topics include hypotheses, theory, and meta-theory; assessment; psychometrics; causal inference; threats to internal/external validity; experimental and statistical controls; strengths and weaknesses of particular cross-sectional, longitudinal, and experimental designs; and acceptance criteria of peer-reviewed journals.

**PSYC 633 - Advanced Statistics II**
*Spring (3) Kirkpatrick, Hilimire, Staff. Prerequisite(s):* PSYC 631 *Corequisite(s):* PSYC 633L.
The second part of the advanced two-course statistics sequence covering topics from basic descriptive and inferential statistics through multiple regression, analysis of variance, and the general linear model.

**PSYC 633L - Advanced Statistics II Laboratory.**
*Spring (0) Kirkpatrick, Hilimire, Staff. Corequisite(s):* PSYC 633.

**PSYC 660 - Proseminar in Developmental Psychology**
*Fall (3) Dallaire, Zeman, Vishton, Forestell, Staff. Prerequisite(s):* An overview of seminal and current theoretical and empirical work in developmental science in the domains of cognitive, linguistic, moral, social, and emotional development.

**PSYC 661 - Proseminar in Cognition**

*Spring (3) Ball, Kieffaber, Stevens, Staff. Prerequisite(s):* Review of theoretical and empirical investigations of major topics in the field of cognition including perception, attention, memory, language, reasoning, decision making, problem solving, cognitive neuroscience, and applied cognitive psychology.

**PSYC 662 - Proseminar in Personality.**
*Fall (3) Moloney, Staff.*
This course provides an overview of historical and contemporary developments in the field of personality psychology, which encompasses individual differences, intrapsychic factors responsible for those differences, within-person processes, and the interface between the person and the social environment. Topics include personality traits, motives/goals, implicit/explicit processes, authenticity, emotion/affect, and well-being.

**PSYC 663 - Proseminar in Behavioral Neuroscience**
*Spring (3) Burk, Staff. Prerequisite(s):* The study of behavior in the context of the physiology of the organism. Selected topics will be used to illustrate the research techniques and investigative procedures commonly employed by physiological psychologists.

**PSYC 664 - Proseminar in Social Psychology**
*Fall (3) Dickter, Staff.*
A survey of classic and contemporary theory and research in social psychology. Topics include social cognition, interpersonal relationships, attitudes, emotions, group performance, the self, and stereotyping.

**PSYC 668 - Proseminar in Clinical Psychology**
*Spring (3) Zeman, Staff.*
Selected topics in clinical psychology, theory, research, and practice.

**PSYC 671 - Statistical Modeling**
*Spring (3) Thrash, Staff.*
This course provides an introduction to advanced statistical modeling techniques. Primary objectives of this course are (1) to provide a big-picture overview of diverse statistical modeling techniques (e.g., multiple regression, mediation/path models, factor analysis, structural equation modeling, multilevel modeling, cluster analysis) and their applications; (2) to provide a thorough introduction to structural equation modeling; and (3) to show how structural equation modeling encompasses and extends a variety of other statistical techniques.

**PSYC 672 - Computer Applications in Psychological Science**
*Fall (3) Kieffaber, Staff.*
Computer proficiency is essential for anyone involved in the psychological sciences. This course will review a variety of software applications in the context of the professional activities of psychological scientists. Topics will include APA-style document processing, reference management, basic programming concepts and computer-assisted acquisition of research data, data management, and statistical analysis.

**PSYC 674 - Applied Decision Theory**
*Spring (3) Langholtz, Staff.*
The purpose of this course is to familiarize students with applied techniques for decision making, and to explain decisions as cognitive processes. Decision-making will be explored in terms of both psychological theory and real-world applications.

**PSYC 685 - Colloquium**

*Fall and Spring (variable 0-2) Dallaire. Graded Pass/Fail.*
No credits earned in this course may be applied to the number of credits required for a degree. *This course may be repeated.*

**PSYC 690 - Directed Readings**
*Fall and Spring (1-3) Dallaire.*
Credit will be from one to three hours depending upon work undertaken. *This course may be repeated for credit.*

**PSYC 693 - Introduction to Graduate Research**
*Fall and Spring (3 or 6) Dallaire, Staff.*
This course introduces students to graduate research. Students design and conduct research with a faculty advisor. *This course may be repeated once, only for 3 semester credit hours, and only if no more than 3 semester credit hours have been earned already for 693.*

**PSYC 700 - Thesis**
*Fall and Spring (variable 1-12) Faculty Advisor. Graded :Grade of either G or U converts to P upon successful completion of a defense and submission and acceptance of the thesis.*
Students finish the research for and the writing of their master's thesis under the direction of a faculty advisor. Students who are not submitting a master's thesis may not use this course to satisfy degree requirements. *This course may be repeated, but no more than 6 semester credit hours may be used to satisfy degree requirements for a thesis master's (only).*

**PUBP 500 - Mathematics for Public Policy Analysis**
*Fall 1 McBeth. Graded Pass/Fail. Prerequisite(s):* College-level algebra.
An introduction to mathematical methods applied to economics and policy analysis. The emphasis is on learning the techniques rather than proving theorems. Topics include: linear algebra, comparative static analysis, and optimization problems.

**PUBP 514 - Topics in Public Policy**
*Fall and Spring (1-3) Staff. Graded Pass/fail.*
Topics change each semester. Please consult Open Course List for the current listing of topics offered. *This course may be repated for 6 credits.*

**PUBP 566 - Directed Studies**
*Fall and Spring Graded Pass/Fail*
No credits earned in this course may be applied to the number of credits required to satisfy graduate degree requirments. *This course may be repeated.*

**PUBP 590 - Policy in Practice**
*Spring 1 McBeth. Graded Pass/Fail.*
An introduction to the practice of public policy. Students must complete a portfolio of experiences involving the practice of public policy outside of the classroom. A passing grade requires that the portfolio contain a written synthesis of the student's observations of policy in practice and how their experiences have shaped their views on public policy. Those experiences must include, at a minimum, the following three elements: (1) participation in the Washington Program, normally in the fall of the first year of study; (2) completion of an approved 10-week full-time internship, normally occurring between the first and second year of study; and (3) participation in at least three Policy Dialogues offered by the program.

**PUBP 595 - William & Mary Policy Review**

*Fall and Spring. (1-3) McBeth. Graded pass/fail.*
Preparation and editing of comments and notes for the *William & Mary Policy Review*; editing of professional articles. Limited to the board and staff members of the *Review*. *May be repeated for credit.*

**PUBP 600 - Independent Study**
*Fall and Spring Variable credit, 1 to 3 credits Staff. Graded Pass/Fail or letter graded.*
Course content varies: special topics courses; independent supervised research; experimentation with new seminars. *This course may be repeated for 6 credits.*

**PUBP 601 - The Political Environment**
*Fall 3 Gilmour, Tierney*
An introduction to the political environment in which policy making occurs. Major themes include the impact of electoral incentives on the design of policy instruments, the importance of institutional structure, and the roles played by uncertainty and expertise in the political process. Sections will focus either on the U.S. Political Environment or Comparative Political Environments.

**PUBP 602 - Quantitative Methods I**
*Fall 3 Manna.*
An introduction to the methods and techniques of statistical analysis with emphasis on public policy applications. Topics include: descriptive statistics; probability; sampling; survey design; hypothesis testing; correlation; regression; and introduction to multiple regression. This course includes training in the responsible and ethical conduct of research, including discussions of the proper use of data and reporting of results in order to avoid fabrication, falsification, and plagiarism.

**PUBP 603 - Quantitative Methods II**
*Spring 3 Savelyev. Prerequisite(s):* PUBP 602.
An introduction to theory and practice of econometrics with emphasis on techniques most useful to policy analysts. Topics include: regression estimation and the theory of least squares including examination of Gauss-Markov assumptions, properties of estimators, and estimation issues when Gauss-Markov assumptions are violated.

**PUBP 604 - Microeconomics of Public Policy**
*Fall 3 Sanders.*
This course develops basic concepts of microeconomic theory, with an emphasis on the economics of the public sector. Topics include: market economy, prisoner's dilemma, preferences, constrained choice, consumer demand, profit maximization in a competitive market, market failure, and the effects of taxes, subsidies, and regulations.

**PUBP 605 - Macroeconomics for Public Policy**
*Spring 3 Han. Graded Pass/Fail. Note: PUBP 605 and PUBP 651 can be taken instead of PUBP 606*
This course provides a broad based-based understanding of macroeconomic concepts and an introduction to the tools of global macroeconomic policy analysis. It starts with the role of government policy in promoting long-term growth. In addition, the focus lies on the role of fiscal, monetary, and exchange rate policies in both developed and developing countries. The impact of policies is studied both domestically and internationally with emphasis on the interdependence and global repercussions of specific policy choices.

**PUBP 606 - Benefit-Cost Analysis**
*Spring 3 Stafford. Note: PUBP 605 and PUBP 651 may be taken instead of PUBP 606*
This course examines basic concepts and techniques involved with benefit-cost analysis. This approach

will be applied to a variety of public policy issues and programs. Topics include: choice of discount rate, treatment of income distribution, intergovernmental grants, tax expenditures, regulation, and program evaluation.

**PUBP 607 - Law and Public Policy**

*Fall 3 Byrne, Heller, Staff.*

Law and Public Policy examines the role of the judiciary as a policy-making institution, including its interactions with legislative, regulatory, and private-sector entities. Students analyze several cases currently before the United States Supreme Court and, through the prism of those cases and other readings, explore the concepts of judicial review, separation of powers, and federalism, and also external influences on law-making bodies, including lobbying, public opinion, and the media. Sections will focus either on the U.S. Legal System or Comparative Legal Systems.

**PUBP 608 - Budget Policy-Making**

*Fall 3 Gilmour, Howard.*

An introduction to public budgeting at the national, state, and local levels, presented from three perspectives: macroeconomics, political science, and public administration. Emphasis is also given to the budgetary strategies employed by bureaucrats, politicians, and interest group representatives as they pursue their policy agendas.

**PUBP 609 - Ethics and Public Policy**

*Spring 3 Staff.*

This course examines the ethical dimensions of domestic and international policy problems. It contrasts moral policy-assessment with economic, legal and political analysis; outlines a policy-making procedure that includes moral assessment; considers a code of professional ethics.

**PUBP 610 - Policy Research Seminar**

*Fall 3 Gilmour.*

This one semester research and writing intensive seminar involves both the further development of policy research skills and communication skills relevant to policy-making. Students will be involved in small-group, client-driven policy analysis projects and an individual project. In addition, students will analyze at least one quick-turnaround policy problem.

**PUBP 612 - Public Management and Organizational Behavior**

*Fall 3 Staff.*

An examination of the ways in which public organizations and their leaders cope with the policy and management challenges that confront administrative agencies in a democratic society. Theoretical literature as well as case studies will be utilized.

**PUBP 613 - Non-Profit Management**

*Spring (3) Joosse.*

An examination of policy environment, funding constraints, and other management issues facing non-profit organizations and their leaders. Theoretical literature as well as case studies will be utilized.

**PUBP 614 - Topics in Public Policy**

*Fall and Spring 3 Staff.*

Topics change each semester. Please consult the Thomas Jefferson Program in Public Policy web site for the current listing of topics offered. *This course may be repeated for credit if there is no duplication of topic.*

**PUBP 615 - Cross Section Econometrics**

*Fall 3 Hicks. Prerequisite(s):* PUBP 603.
Economic data often come as a cross-section of data points, frequently collected as part of a sample survey. The nature of these data calls for the use of a specialized set of tools, which will be developed in the course. Among the models to be examined are discrete, censored and truncated dependent variable, sample selectivity and duration models. Hands-on analysis of data sets will feature prominently.

**PUBP 616 - Time Series Econometrics**
*Spring 3 Moody. Prerequisite(s):* PUBP 603.
This course is an introduction to the econometric analysis of time series data. Topics include ARIMA models, forecasting, analysis of nonstationary series, unit root tests, co-integration and principles of modeling.

**PUBP 617 - Survey Methodology**
*Spring 3 Staff.*
An introduction to the formulation, implementation and analysis of political and public policy surveys. Topics to be covered include the psychology of the survey response, sampling, interviewing, focus groups, experimental design, hypothesis testing and data analysis. Students will carry out individually designed and group designed surveys, and write papers and reports around these projects.

**PUBP 620 - Regulation of Markets**
*Spring 3 Parman, Stafford.*
An in-depth study of government intervention in markets. Principal focus on characteristics and effects of rules and institutions governing markets and the definition of areas of market failure. Topics include: regulation of monopoly, antitrust enforcement, and regulation of spill-overs.

**PUBP 621 - Administrative Law**
*Fall 3 Devins.*
A study of practice in the administrative process, examining the procedures for administrative adjudication and rulemaking; legislative and judicial control of administrative action; and public access to governmental processes and information. Cross-listed with [LAW 453]

**PUBP 622 - Environmental Policy**
*Fall 3 Hicks.*
This course explores policy making for environmental problems and focuses on issues that are local, national, and international. This course will cover the application of welfare economics to environmental problems. Topics include differences in consumer surplus and other measures of economic welfare and techniques to measure the economic value of environmental resources. We examine national environmental policy, and how that policy is implemented at a local and regional level. We examine the U.S. laws and regulations as well as each agency's approach for quantitatively assessing the benefits and costs of environmental policy.

**PUBP 623 - Health Care Policy**
*Fall 3 Rossiter, Mellor.*
The application of microeconomic theory, quantitative analysis, and policy evaluation to the health care delivery and financing systems. Coverage includes the economic dimensions of health care, health status, medical manpower, hospitals and other institutional providers, third party financing, quality assessment, systematic analysis, and national health policies.

**PUBP 624 - Law and Medicine Seminar**

*Spring 3 Hubbard.*
A study of medical jurisprudence and hospital law focusing on medical malpractice and tort law reform and contemporary problems including the regulation of health care delivery systems, access to health care, and antitrust challenges. Cross-listed with [LAW 518]

**PUBP 626 - Law and Resource Management**
*Spring 3 Taylor.*
An interdisciplinary course designed to examine the interrelationships between scientific and legal concepts. Issues, legislation, and institutions associated with coastal zone management, outer continental shelf development, fisheries, and other questions related to marine resource management will be examined. Cross-listed with [MSCI 543]

**PUBP 627 - Law, Policy and Environment**
*Spring 3 Malone.*
A study of the environmental policy-making process. Topics include: ecological and economic foundations of environmentalism, traditional institutional responses, the policy-making process in the context of our legal system, constitutional questions raised by judicial and agency involvement, and economic, political and ethical concerns raised by different theories of environmental decision-making. Cross-listed with [LAW 439]

**PUBP 628 - Environmental Law**
*Spring 3 Malone, Rosenberg.*
A study of nature and causes of environmental pollution and legal techniques for its control. The course considers common law, environmental impact assessment process, and basic regulatory framework for air, water and solid hazardous waste control, and main policy issues presented by each. Other: role of federal courts in reviewing agency action, new developments in administrative law, natural resource management and allocation issues, toxic and hazardous substance regulation, and enforcement of laws. Cross-listed with [LAW 424]

**PUBP 630 - The Economics of Policy-Making at the State and Local Level**
*Fall 3 Beach.*
A topics course including, but not limited to, the measurement of state and local fiscal capacity, urban problems, urban infrastructure development, intergovernmental aid to localities, industrial location decisions, and local land use policy and its impact on growth and development.

**PUBP 631 - State and Local Politics and Policy-Making**
*Spring 3 Howard, McGlennon.*
This course examines the nature of state and local governments and their policy processes and outcomes, including relationships among levels of government, explanations for policy variations among states and localities, and constraints on attempts to deal with their public policy responsibilities.

**PUBP 632 - Local Government Law**
*Spring 3 Rosenberg.*
This course examines local government powers and relation to state and federal authority with emphasis on state and federal statutory and constitutional restraints on operation of local government entities. Topics include: Dillon's Rule, home rule, preemption, annexation, personnel matters, public contracts, borrowing and taxation, and public entity tort liability and immunity. Cross-listed with [LAW 429 ]

**PUBP 633 - Land Use Control**

*Spring 3 Butler, Rosenberg.*
Analysis of legal doctrines governing use of land in modern society. Topics include: zoning, land planning, sub-division regulations, rezoning, variances, conditional uses, and mandatory dedications, common law doctrines and private law methods which affect land use, and historic preservation as a land use problem. Cross-listed with [LAW 425]

**PUBP 635 - Fundamentals of Environmental Science for Policy**
*Fall 3 Taylor.*
This course is intended primarily for students in Law, Public Policy and related disciplines, and is designed to introduce these students to the science of natural systems and ecological processes. The course examines the current state of our understanding in terms that will give the student confidence and the facility to critically assess theories and observations in environmental science. With this as a foundation, topics discussed will include: the enhanced greenhouse effect, coastal eutrophication, biodiversity loss, water resources, sea level rise, environmental contamination, land use trends, and invasive species impacts.

**PUBP 640 - Labor Market Policy**
*Spring 3 McHenry.*
This course examines how public policies affect the labor market. Topics include: wage determination, education, training, minimum wages, immigration, unemployment compensation, social security, disability insurance, comparable worth, workplace safety, welfare reform, and affirmative action.

**PUBP 642 - Legal Foundations of American Social Programs**
*Spring 3 Staff.*
This course examines law relating to major benefits programs, including social security, medicare/medicaid, unemployment, employee rehabilitation, AFDC, and Food Stamps, including decision-making processes used in governance of these programs and the basic substantive law created for and by these programs. Cross-listed with [LAW 430]

**PUBP 643 - Employment Discrimination**
*Spring 3 Grover.*
A study of federal laws prohibiting discrimination in employment on account of race, national origin, gender, religion and handicapping condition, with emphasis on Title VII of the 1964 Civil Rights Act, the Age Discrimination in Employment Act and the Equal Pay Act. Cross-listed with [LAW 452]

**PUBP 644 - The Financing of Higher Education**
*Fall 3 Eddy, Finnegan.*
An overview of the financing of higher education. Besides becoming acquainted with the literature and main issues in finance, students will develop the ability to examine and analyze financial statements, assess the budget as an instrument of control, and relate the budget to the educational program. Cross-listed with [EPPL 676]

**PUBP 645 - Higher Education and Public Policy**
*Spring 3 Staff.*
A seminar for advanced graduate students in which the general topic of the relationship between the government and higher education is developed. Major attention is given to developments since World War II. Cross-listed with [EPPL 713]

**PUBP 646 - Employment Law**

*Fall 3 Abel, Douglas.*
This course will focus on a variety of common law and statutory legal issues surrounding the employer-employee relationship. Issues considered will include employment at-will, employee privacy, covenants not to compete, regulation of wages and hours, ERISA, worker's compensation, occupational health and safety, and unemployment compensation. This course will not overlap either LAW 452 - Employment Discrimination or LAW 407 - Labor Law Cross-listed with [LAW 456]

### PUBP 650 - International Trade: Theory and Policy

*Spring 3 Feldman, Lopresti.*
Trade influences national income, resource allocation, and the distribution of income. We use economic theory to develop these ideas and to relate them to the public policy debate. Topics include: the economics of protectionism, industrial policy and strategic trade issues, regional integration, and the policymaking process itself.

### PUBP 651 - International Development and Policy

*Spring 3 BenYishay Note: PUBP 605 and PUBP 651 can be taken instead of PUBP 606*
This course applies relevant economic theories to the study of growth and structural change in less industrialized countries. Topics include sources of growth, industrialization, trade, income distribution, urbanization, and the state. Various techniques of policy analysis will be examined through selected case studies.

### PUBP 652 - Public International Law

*Fall 3 Malone.*
An examination of the nature and sources of international law and municipal law; the law of treaties; principles of jurisdiction; statehood and recognition of states and governments; sovereign immunity; rights of aliens; human rights; environmental issues; and regulation of international coercion. Cross-listed with [LAW 409]

### PUBP 653 - Diplomacy Lab

*Fall and Spring (1 to 3) Staff. Note: Instructor permission required.*
Course for students accepted into the State Department's Diplomacy Lab program. Separate sections will be offered for each of the Diplomacy Lab projects.

### PUBP 685 - Colloquium

*Fall and Spring variable 0-2 Graded Pass/Fail*
No credits earned in this course may be applied to the number of credits required for a degree. *This course may be repeated.*

## A&S – Geographic Information Science Courses (GIS)

### GIS 410 - Introduction to Remote Sensing

*(3) Rose.*
Introduction to Remote Sensed Imagery and Analysis Remote sensing is the art and science of obtaining information about an object without being in direct physical contact. Students will develop a robust understanding of the tools and techniques used to display, process, and analyze remotely sensed data, while studying the theory, principles, and methodology of remote sensing of the environment for geospatial applications. Emphasis will be placed on designing, implementing, and critically evaluating the processes of image acquisition and data collection in the electromagnetic spectrum from a variety of sensors (i.e. aerial, satellite, multispectral, hyperspectral, and LiDAR) and analysis through data set manipulations. Upon completion of this course students will be able to develop analytical workflows to derive products and extract information from remotely sensed data for a broad range of applications.

**GIS 501 - Fundamentals of GIS**

*(3) White Prerequisite(s):* Instructor Permission Required
Fundamentals of Geographic Information Science & Analysis This course will provide an introduction to the fundamentals of Geographic Information Science, including using Geographic Information Systems (GIS), Global Positioning Systems (GPS), basics of cartography, remote sensing, spatial analysis, and modelling. Students will learn from lecture, hands-on labs, in-class exercises and independent research. Emphasis will be on hands-on application of these technologies to create maps, to organize and visualize spatial data, and to utilize spatial data to analyze and address social, economic, political and environmental issues. The GIS fundamentals course will use GIS-based research questions to introduce the fundamentals of vector data, raster data, database operations, and interpolative techniques within desktop and SAAS online GIS environments. Students will create their own individual spatial research questions, locate/create data for analysis, complete unique analysis addressing the research question(s), and deliver a presentation by the end of the course.

**GIS 505 - Geovisualization & Cartographic Design Techniques**

*(3) White. Prerequisite(s):* Instructor Permission Required
Communicating geographic concepts, problems and solutions are key to geovisualization and spatial design, the modern art and science of cartography. The foundational principles of the course will be grounded in the fundamentals of traditional cartography using GIS in combination with design and analytical software. This course will immerse students in color theory, symbology, typography, along with 2-D and 3-D design layout within web and print media. Hands-on learning experiences will emphasize and apply scientific visualization techniques alongside the art of data visualization, both in terms of how to use visualization to understand spatial data and to create strong visual communication.

**GIS 510 - Introduction to Remote Sensed Imagery and Analysis**

*(3) Rose Prerequisite(s):* Instructor Permission Required
Remote sensing is the art and science of obtaining information about an object without being in direct physical contact. Students will develop a robust understanding of the tools and techniques used to display, process, and analyze remotely sensed data, while studying the theory, principles, and methodology of remote sensing of the environment for geospatial applications. Emphasis will be placed on designing, implementing, and critically evaluating the processes of image acquisition and data collection in the electromagnetic spectrum from a variety of sensors (i.e. aerial, satellite, multispectral, hyperspectral, and LiDAR) and analysis through data set manipulations. Upon completion of this course students will be able to develop analytical workflows to derive products and extract information from remotely sensed data for a broad range of applications.

**GIS 520 - Advanced GIS Analysis and Programming**

*Spring (3) Staff Prerequisite(s):* Instructor Permission Required
This course extends the existing base of GIS knowledge and skills by amplifying programmatic approaches to spatial data and analysis. Lectures, labs, and projects emphasize GIS model development, develop spatial database architecture and design best practices, and extend knowledge of web GIS by authoring and consuming geographic web services. Students will become familiar with methods of leveraging programming languages (such as Python) to make GIS processing easier, faster, and more accurate by scripting and automating data management, production, manipulation, and analysis procedures. Activities develop GIS analysis skills with examples from government, social science, physical science, and the humanities.

**GIS 550 - Independent Research in GIS**

*Fall and Spring and Summer (1-3) Staff Prerequisite(s):* Instructor Permission Required
This course is designed to permit students to engage in applied GIS research projects with mentorship from their instructor. Working closely with their mentor each student will be expected to conduct original research and prepare a substantial research report. It is expected that the project can be conducted in the context of the student's current employment or place of work, and the project be spread over multiple semesters if necessary. *The course can be repeated for credit up to a maximum of 3 credits of GIS 550.*

### GIS 590 - Topics: Geospatial Technologies GIS

*(1-4) Staff Prerequisite(s):* Instructor Permission Required

## A&S – Graduate Center Courses (GRAD)

### GRAD 501 - English Conversation and Pronunciation

*Fall (0 credit) Graded Pass/Fail.*
In this course students will learn more about articulation and the rhythm, stress, and intonation patterns of spoken English, improve their ability to communicate with others, and practice distinguishing sounds that are unique to the English language. Recorded assignments and in-class discussions will allow students opportunities to practice their conversational skills and learn more about American culture.

### GRAD 502 - Effective Conversation

*Spring (0 credit) Graded Pass/Fail.*
Students will learn about and practice a set of strategies for effective conversation in English. These strategies include how to ask for clarification, agree and disagree, summarize, share information, correct someone politely, and make decisions in a group setting. Students will learn American conversational conventions and culture, while practicing skills in initiating, maintaining, and ending a conversation.

### GRAD 503 - Extended Discussion and Active Listening Skills

*Fall (0 credit) Graded Pass/Fail.*
Being able to converse and be understood is critical to success in graduate study. These skills are also needed when presenting research. This class will help to build extended discussion skills, sharpen a listener's ear to understand what's being said and asked so that students will gain increasing confidence in their speaking, discussion and listening abilities in the classroom and on campus in general.

### GRAD 505 - Academic Public Speaking

*Spring (0 credit) Graded Pass/Fail.*
Giving a successful presentation requires many components. This course will address audience, organization of content, effective visuals, non-verbal and verbal skills such as chunking, pacing, stress and intonation. Grammar and pronunciation will be polished along the way as students will have ample opportunity to practice. The goal is to raise confidence and refine the skills needed in graduate classes and research presentations.

### GRAD 510 - Science Writing Retreat

*(0 credit) Sarah Glosson. Graded Pass/Fail.*
This course offers writing support for students in the sciences working to make substantial progress on their thesis or other large-scale writing project. Structured as a one-week "bootcamp," the course offers tailored workshops in improving writing and revising skills, time management, grammar tips, and more. Workshops take place during lunch, with the rest of the time spent in quiet writing supported by individual help, as needed.

**GRAD 512 - Computing for the Humanities**

*(0 credit) Jim Deverick. Graded Pass/Fail. Note: Instructor permission required.*

Interested in digital humanities but find yourself needing deeper digital skills? This "bootcamp" style course offers humanists with little or no programming experience hands-on experience with the basics of useful tools, platforms, and programming languages common to digital humanities work. Specific course topics are individualized each semester based on the needs and interests of the class. Students may repeat this course as often as they like to learn new skills, continue old projects, or start new ones.

**GRAD 514 - Tools for Engaged Humanists**

*(0 credit) Graded Pass/Fail.*

This course explores platforms, tools, and questions humanities scholars need to consider when presenting their work to a public audience. Practical and conceptual challenges in the use of digital platforms including blogs, podcasts, and online exhibits to convey complex scholarly work will be considered, as will questions of how best to represent, serve, and engage audiences both inside and beyond the academy.

**GRAD 520 - Academic Writing**

*Fall (0 credit) Sarah Glosson. Graded Pass/Fail. Note: Instructor permission required.*

A course for domestic and international students to improve writing skills and gain confidence in their ability to write formal, academic English. The writing process will be emphasized, with special attention given to improving the students' organizing, proofreading and revising skills. Students will learn how to identify their audience, define their purpose, and add cohesion and clarity to their writing. In addition, writing conventions concerning plagiarism and other writing norms will be examined.

**GRAD 522 - Practicum in Mentoring Academic Writing**

*(0 credit) Graded Pass/Fail.*

This course is designed to help graduate students learn and put into practice specialized strategies for effectively mentoring academic writing in arts and sciences. Specifically tailored for graduate consultants working at the Graduate Writing Resources Center (GWRC), this course will help students become better mentors and teachers through discussion and implementation of selected pedagogical methodologies.

**GRAD 529 - Provost Dissertation Writing Workshop**

*Summer (0 credit) Sarah Glosson. Graded Pass/Fail. Note: Course is required for all new Provost Dissertation Fellows who will have to be physically present on campus during the session the course is offered.*

Specifically for Provost Dissertation Fellows, this course will provide an environment for intense, focused writing within a structured environment, as well as time for group discussions on effective work habits and strategies. During the course a solid plan will be developed to help enable completion of students' dissertations by the following spring graduation.

**GRAD 530 - Dissertation Writing**

*Fall and Spring (0 credit) Sarah Glosson. Graded Pass/Fail. Note: Course restricted to Provost Dissertation Fellows only.*

This is a course for those students who are receiving a Provost Dissertation Fellowship. Fellows are actively writing their dissertations, including writing articles for publication as components of their dissertations. In collaboration with their academic advisor, graduate director and in consultation with the instructor, students will organize and write individual chapters, simultaneously reviewing and revising their writing. Mini-workshops throughout the 10-week class will address topics that are relevant to the dissertation writer, such as organization, effective research strategies and citations, advisor/advisee interaction, and time management.

**GRAD 540 - Special Topics in Professional Development**

*(0 credit) Graded Pass/Fail*
This topics course is intended to provide short-term, intensive exposure to specialized skills, knowledge, or training for A&S graduate students in a variety of areas. This professional development course may be offered during the semester, or as a one-week "boot camp" during the summer or winter breaks. Sample topics might include: "Basics of Programming for the Humanities," "Proposal Writing Bootcamp," or "Basics of Geospatial Analysis and GIS."

### GRAD 550 - College Teaching

*(0 credit) Sarah Glosson. Graded Pass/Fail. Note: Instructor permission required.*
Discussion and exploration of college teaching including general issues in college teaching; various teaching strategies including lectures, discussions, group work, writing assignments; course design, syllabus and test construction, and grading; integrating research and education; and job search and application strategies. Students will develop a portfolio to include sample assignments and a general teaching statement. Readings on teaching and learning and on university education.

## A&S – Additional Graduate Courses (MATH)

### MATH 508 - Advanced Linear Algebra

*Fall 3 Prerequisite(s):* Consent of instructor.
Eigenvalues, singular values, matrix factorizations, canonical forms, vector and matrix norms; positive definite, hermitian, unitary and nonnegative matrices.

### MATH 510 - Special Topics in Mathematics

*Fall and Spring 1-3*
A treatment of topics of interest not routinely covered by existing courses. Material may be chosen from topology, algebra, differential equations and various other areas of pure and applied mathematics. *This course may be repeated for credit with permission of the instructor.*

### MATH 513 - Introduction to Numerical Analysis I

*Fall 3 Prerequisite(s):* Consent of instructor.
A discussion of the mathematical theory underlying selected numerical methods and the application of those methods to solving problems of practical importance. Computer programs are used to facilitate calculations. The topics covered are: roots of equations, systems of linear equations, interpolation and approximation, and numerical integration. Students planning to take MATH 514 are strongly encouraged to take MATH 513 first.

### MATH 514 - Introduction to Numerical Analysis II

*Spring 3 Prerequisite(s):* Consent of instructor.
A discussion of the mathematical theory underlying selected numerical methods and the application of those methods to solving problems of practical importance. Computer programs are used to facilitate calculations. The topics covered are: iterative methods for linear systems, eigenvalue computations and differential equations. Students planning to take MATH 514 are strongly encouraged to take MATH 513 first.

### MATH 524 - Operations Research: Stochastic Models

*Spring 3 Prerequisite(s):* Consent of instructor.
A survey of probabilistic operations research models and applications. Topics include stochastic processes, Markov chains, queuing theory and applications, Markovian decision processes, inventory theory and decision analysis.

**MATH 541 - Nonlinear Dynamics**
*Fall (3)*
Linear systems of ODEs. Nonlinear systems; dynamical systems, existence/uniqueness of solutions; phase plane analysis; bifurcation; Poincare-Bendixson theory. Applications in biology, circuit theory, and mechanics. Discrete dynamical systems. Cross-listed with MATH 441 - Ordinary Differential Equations II

**MATH 551 - Probability**
*Fall and Spring 3 Prerequisite(s):* Consent of instructor.
Topics include: combinational analysis, discrete and continuous probability distributions and characteristics of distributions, sampling distributions.

**MATH 552 - Mathematical Statistics**
*Spring 3 Prerequisite(s):* Consent of instructor.
The mathematical theory of statistical inference. Possible topics include: maximum likelihood, least squares, linear models, methods for estimation and hypothesis testing.

**MATH 559 - Topics in Statistics**
*Fall and Spring 1-3 Prerequisite(s):* Consent of instructor.
Statistical topics not covered in other courses. Possible topics include: linear models, nonparametrics, multivariable analysis, computationally intensive methods. *This course may be repeated for credit as topics change.*

## School of Education – Curriculum & Instruction Courses (CRIN)

**CRIN E03 - Elementary Reading and Language Arts Curriculum and Instruction**
*(5) Corequisite(s):* CRIN L03
A course on the fundamentals of developmental and diagnostic reading instruction in elementary and middle schools. Included is study of the school reading program from emergent literacy to reading in content areas. Classroom diagnostic techniques and corrective methods are an integral part of the course.

**CRIN E05 - Elementary Social Studies Curriculum and Instruction**
*(2) Corequisite(s):* CRIN L05
An exploration of the objectives, curricula, instructional strategies, and evaluation of social studies education at the elementary school level. Included are experiences in the design of instructional materials for use in the classroom.

**CRIN E06 - Elementary Science Curriculum and Instruction**
*(2) Corequisite(s):* CRIN L06
A course in which students examine the goals, objectives, instructional strategies, student and teacher behaviors, philosophies, strengths, shortcomings of exemplary elementary school science curricula as a basis for designing science instruction.

**CRIN E07 - Elementary Mathematics Curriculum and Instruction**
*(2) Corequisite(s):* CRIN L07
A lecture/laboratory course that assists the beginning teacher to become familiar with the elementary and middle school mathematics curriculum and with various manipulatives, models, materials, technology, and instructional methods appropriate for teaching this curriculum and to develop the ability to plan and

execute instruction designed to teach skills, understanding, and problem solving at the elementary and middle school levels.

**CRIN E08 - Introduction to Classroom Organization, Management and Discipline**

*(1) Prerequisite(s):* CRIN F11, F12, and F65

A course designed to help prospective teachers promote positive student behavior. Emphasis is placed on the selection of strategies, procedures, and possible actions that enhance classroom organization and management and reduce and/or prevent misbehavior.

**CRIN E09 - Designs for Technology-Enhanced Learning (Elementary Education)**

*(2) Prerequisite(s):* Admission to the elementary education teacher certification program.

An introduction to computer-based instructional technologies, Internet resources, other emerging technologies, and instructional design. Students will acquire technical skills in selected software applications and integrate emerging technologies into the curriculum.

**CRIN E10 - Adaptations for Exceptional Student Populations (Elementary Education)**

*(1) Prerequisite(s):* Open only to elementary education concentrators.

A course designed for students concentrating in elementary education to enable them to develop and implement specific strategies for teaching exceptional children (e.g., students with disabilities, at-risk, gifted, culturally diverse) in general education classrooms.

**CRIN E11 - Student Teaching Seminar in Elementary Education**

*(1) Graded Pass/Fail. Corequisite(s):* Courses in the third semester of Elementary Education Program.

A seminar designed to provide students with an opportunity to reflect on their classroom experiences and to refine their applications of their knowledge, decision-making, and skills in coordinating instruction, classroom organization, management, and discipline.

**CRIN E22 - Characteristics of Exceptional Student Populations (Elementary)**

*(1)*

This course, designed for graduate students concentrating in Elementary Education, provides an introduction to varying exceptionalities and characteristics of exceptional elementary age children (e.g., students who have disabilities, are at risk, are gifted/talented, come from culturally & linguistically diverse backgrounds) and provides an overview of applicable educational policies and services.

**CRIN G60 - Master's Thesis in Gifted and Talented Education**

*(Var.) Graded Pass/Fail. Prerequisite(s):* Permission of the instructor.

**CRIN G80 - Psychology and Education of the Gifted Learner**

*(3)*

This course focuses on the nature of gifted learners and how they differ in cognitive, affective, developmental, and behavioral ways from more typical learners. It will emphasize general theories of intelligence, development, and learning and how they apply to gifted learners.

**CRIN G82 - Social and Emotional Development and Guidance of the Gifted Learner**

*(3) Prerequisite(s):* CRIN G80 or equivalent.

This course focuses on the social and emotional characteristics and needs of the gifted individual and various counseling and guidance strategies that can facilitate his/her development over the life span. The course will emphasize theories of emotional development and self-actualization and their implications for guiding the gifted.

**CRIN G84 - Practicum in Gifted Education**

*(3) Graded Pass/Fail. Prerequisite(s):* CRIN G80 & EPPL 612
This practicum is designed to provide direct experiences with gifted education programs and services. Both seminar and field experiences focus on comprehensive articulated programs and services for this population.

**CRIN G86 - Addressing the Individual Needs and Talents in the Regular Classroom**

*(3)*
This course will outline instructional and managerial techniques that can be used in the heterogeneous classroom to address the individual learning needs, strengths, styles, and preferences of all students, but specifically, those with gifts and talents. This course will also teach students the principles of Universal Design for Learning (UDL).

**CRIN L03 - Elementary Reading and Language Arts Curriculum and Instruction (Lab)**

*(1) Graded Pass/Fail. Corequisite(s):* CRIN E03
A course designed to provide opportunities for students to observe and participate in developmental/diagnostic reading instruction in an elementary school classroom.

**CRIN L05 - Elementary Social Studies Curriculum and Instruction (Practicum)**

*(1) Graded Pass/Fail. Corequisite(s):* CRIN E05
A course designed to provide the prospective elementary school teacher with the opportunities to experience and reflect on practices of social studies education in the school setting.

**CRIN L06 - Elementary Science Curriculum and Instruction (Practicum)**

*(1) Graded Pass/Fail. Corequisite(s):* CRIN E06
A course designed to provide students with a first opportunity to reflectively apply/refine their skills/knowledge about the teaching of science as both a process and a product, as a way of knowing and as a body of knowledge.

**CRIN L07 - Elementary Mathematics Curriculum and Instruction (Practicum)**

*(1) Graded Pass/Fail. Corequisite(s):* CRIN E07
A course designed to provide students with an opportunity to apply, refine, and modify their preliminary beliefs about teaching mathematics.

**CRIN L10 - Differentiating and Managing in Diverse Classrooms Practicum: Elementary**

*(1) Graded Pass/Fail. Corequisite(s):* CRIN E10
A course designed to provide the prospective elementary school teacher with the opportunities to experience and reflect. This course is a clinical practicum designed to acquaint students with the school personnel, policies, and instructional/behavioral practices of inclusive classrooms at the elementary level. The practicum provides students with a view to how different theoretical perspectives manifest in actual schools and classroom settings.

**CRIN L20 - Supervised Teaching in Elementary Education**

*(7) Graded Pass/Fail. Prerequisite(s):* First- and second-semester courses in elementary education program. *Corequisite(s):* Third-semester courses in elementary education program.
A field-based experience designed to enable pre-service elementary teachers to become competent at the entry level in the roles, functions, and skills of classroom teachers.

**CRIN L29 - Internship in Supervised Teaching (Social Studies)**

*(8) Graded Pass/Fail. Prerequisite(s):* Permission of the instructor. *Corequisite(s):* CRIN S09, and CRIN S42
This class is a field-experience course designed to enable pre-service secondary teachers to become competent at the entry level in the roles, functions and skills of classroom social studies teachers.

**CRIN L30 - Internship in Supervised Teaching (English)**
*(8) Graded Pass/Fail. Prerequisite(s):* Permission of the instructor. *Corequisite(s):* CRIN S09, and CRIN S38
This course is a field-based experience designed to enable preservice secondary teachers to become competent at the entry level in the roles, functions, and skills of English language arts classroom teachers.

**CRIN L32 - Internship in Supervised Teaching (Mathematics)**
*(8) Graded Pass/Fail. Prerequisite(s):* Permission of the instructor. *Corequisite(s):* CRIN S09, and CRIN S39
A field and university based course designed to enable pre-service secondary teachers to become competent at the entry level in the roles, functions and skills of classroom mathematics teachers.

**CRIN L33 - Internship in Supervised Teaching (Science)**
*(8) Graded Pass/Fail. Prerequisite(s):* Permission of the instructor. *Corequisite(s):* CRIN S09, and CRIN S41
This course is a field-based experience designed to enable graduate pre-service K-12 teachers to become competent at the entry level in the roles, functions, and skills of classroom teachers.

**CRIN R07 - Language Development and English Language Learners**
*(3)*
This course focuses on language development, stages of language acquisition, methods of evaluating language performance, and strategies for improving the quality and quantity of oral language for first and second language learners. The influence of dialect and exceptionalities and the impact of oral language on early literacy development are addressed.

**CRIN R08 - Literacy Instruction for Diverse Learners**
*(3)*
A course designed to help teachers understand the foundations of children's literacy development. Focus is placed on the research-based best practices that promote student achievement in the teaching of reading and language arts to diverse groups of learners. Attention is given to the cultural context of literacy development.

**CRIN R11 - Reading and Writing Across the Curriculum**
*(3)*
A course intended for K-12 teachers who desire to improve their knowledge and skill in effectively integrating content reading into any subject area. Reading assessment and instructional strategies for content reading will be explored as well as instructional strategies for student who have reading difficulties in content areas.

**CRIN R18 - Reading Recovery**
*(3) Note: Permission of instructor required for enrollment*
This course introduces students to reading recovery, its purposes, procedures and theoretical foundations. Classroom instruction is coordinated with the individual instruction of students in an integrated field experience.

**CRIN R19 - Reading Recovery Strategies**
*(3) Note: Permission of instructor required for enrollment.*
Second course in the series. Teachers will continue to learn observation and questioning techniques to help students accelerate their progress in reading. Class instruction will focus on observation of student

and teacher behaviors and the theory that guides the practice of reading recovery teachers. Classroom instruction is coordinated with the individual instruction of students in an integrated field experience.

**CRIN R21 - Diverse Literature for Children**
*(3)*
This course provides a thorough look at the field of children's literature to include the value and usage of diverse children's literature across genres, criteria for evaluation and selecting books for all children, methods of extending children's literature through creative activities, and the discussion of current issues in the field of children's literature.

**CRIN R30 - Writing Workshop**
*(3 or 6) Graded Pass/Fail. Prerequisite(s):* Selection as a Fellow of the Eastern Virginia Writing Project Summer Institute.
An intensive summer workshop offered as part of the Eastern Virginia Writing Institute to give teachers a sound theoretical basis for teaching writing to allow them to experience writing as writers, and to prepare them to present colleague inservice workshops on the teaching of writing.

**CRIN S00 - Curriculum and Instructional Methods (Social Studies)**
*(3)*
This course provides an introduction into prominent issues in history and social studies education and focuses on best practices in instructional methodology for the field. In addition, students will be engaged in critiquing and constructing curriculum and exploring issues of diversity and citizenship in social studies education.

**CRIN S01 - Curriculum and Instructional Methods (English)**
*(3)*
This course is designed to build fundamental knowledge of middle and secondary English teaching and learning including standards-based curriculum design and research-based teaching strategies.

**CRIN S03 - Curriculum and Instructional Methods (Mathematics)**
*(3)*
A course in instructional methodology and introduction to secondary mathematics teaching methods and materials.

**CRIN S04 - Curriculum and Instructional Methods (Science)**
*(3)*
A course designed to build fundamental knowledge of middle and secondary science teaching and learning including standards-based curriculum design and research-based teaching strategies. The course focuses upon developing inquiry-based science instruction for grades 6-12 students.

**CRIN S05 - Reading and Writing Across the Disciplines**
*(3) Prerequisite(s):* Admission to the secondary education graduate program.
This course is designed to support preservice teachers' understandings of the role of literacy within the context of academic disciplines. This course balances a focus on general instructional techniques to support adolescent readers as they learn from texts with a nuanced focus on the literacy demands within specific disciplines.

**CRIN S09 - Classroom Organization, Management and Discipline (Secondary Education)**
*(3) Prerequisite(s):* Admission to the secondary education teacher certification program.
This course is designed to help prospective secondary school teachers promote positive student behavior.

Emphasis is placed on the selection of strategies and procedures to enhance classroom organization and management and reduce and/or prevent misbehavior and strategies for effective collaboration with stakeholders, including parents and families.

**CRIN S10 - Clinical Experience in Secondary Schools (Social Studies)**
*(3) Prerequisite(s):* Admission to the secondary education teacher certification program.
Introduces students in the Secondary Education Teacher Certification Program to school settings where observation, inquiry, and participation in the processes of teaching and learning are possible. Provides opportunities for the development of instructional strategies and teaching practices, as well as for inquiry into the contexts of classrooms and schools.

**CRIN S11 - Clinical Experience in Secondary Schools (English)**
*(3) Prerequisite(s):* Admission to the secondary education teacher certification program.
Introduces students in the Secondary Education Teacher Certification Program to school settings where observation, inquiry, and participation in the processes of teaching and learning are possible. Provides opportunities for the development of instructional strategies and teaching practices, as well as for inquiry into the contexts of classrooms and schools.

**CRIN S13 - Clinical Experience in Secondary Schools (Mathematics)**
*(3) Prerequisite(s):* Admission to the secondary education teacher certification program.
Introduces students in the Secondary Education Teacher Certification Program to school settings where observation, inquiry, and participation in the processes of teaching and learning are possible. Provides opportunities for the development of instructional strategies and teaching practices, as well as for inquiry into the contexts of classrooms and schoo

**CRIN S14 - Clinical Experience in Secondary Schools (Science)**
*(3) Prerequisite(s):* Admission to the secondary education teacher certification program.
Introduces students in the Secondary Education Teacher Certification Program to school settings where observation, inquiry, and participation in the processes of teaching and learning are possible. Provides opportunities for the development of instructional strategies and teaching practices, as well as for inquiry into the contexts of classrooms and schools.

**CRIN S31 - Technology for STEM Integration**
*(3)*
Makerspaces and the makerspace movement provide opportunities for students to link science, technology, engineering, and mathematics STEM content to problem-based, integrated learning opportunities. Technology for STEM integration will provide opportunities for students to learn about and apply these technologies to instruction.

**CRIN S32 - Digital Humanities**
*(3)*
Digital tools and resources provide opportunities to encourage deeper learning in students by providing rich, multimodal representations of course content and enabling platforms for students to share their understanding. Digital Humanities will provide opportunities for students to engage in digital humanities work as both students and instructional designers.

**CRIN S38 - Curriculum Planning and Assessment (English)**
*(3) Corequisite(s):* CRIN S09 and CRIN L30
This course is designed for students to develop and apply skills and knowledge in English language arts

curriculum and assessment, as they create instructional units for their internship classroom. Students will examine issues of differentiation of instruction and use of technology. Students will also implement a classroom based intervention study focused on either a topic of student learning or classroom culture.

**CRIN S39 - Curriculum Planning and Assessment (Mathematics)**

*(3) Corequisite(s):* CRIN S09 and CRIN L32

A field and university based course designed to provide students with an opportunity to reflectively apply and refine their skills and knowledge about the teaching of mathematics to instructional design, teaching, and evaluation of their instruction practices.

**CRIN S41 - Curriculum Planning and Assessment (Science)**

*(3) Corequisite(s):* CRIN S09 and CRIN L33

This course is a field and university-based course designed to provide students the opportunity to reflectively apply and refine their skills and knowledge about teaching science. The course emphasizes incorporating appropriate technologies and adaptations for the diverse needs of learners.

**CRIN S42 - Curriculum Planning and Assesement (Social Studies)**

*(3) Corequisite(s):* CRIN S09 and CRIN L29

This course is designed for students to develop skills and knowledge in constructing and refining social studies curriculum and assessment, and applying these in developing instructional units for their internship classroom. Students will also examine issues of differentiation of instruction, and use of technology, and reflect on their practice. Students will also employ a classroom based intervention study focused on either a topic of student learning or behavior/classroom culture.

**CRIN S50 - Introduction to the Characteristics of and Instructional Supports for Exceptional Students**

*(3)*

This course introduces secondary education teachers to the characteristics of students with exceptional needs and provides an overview of the process of differentiating instruction for the individual learning needs of students in secondary classrooms who have exceptional needs.

**CRIN S77 - Literature for Adolescents**

*(3) Corequisite(s):* CRIN S01, CRIN S05, and CRIN S11

In this course students read, discuss, and write about literature written specifically for adolescents, books that reflect adolescent coming-of-age issues, cover a range of genres, and represent the best authors in the field. Students study and apply contemporary ways of interpreting literature that range from New Criticism to Cultural Studies, including Archetypal theory, Structuralism, Post-structuralism, Reader Response, the Black Aesthetic, and Feminism. The course addresses ways in which literature for adolescents can be used successfully in middle and high school classrooms to teach students to become better readers, writers, and critical thinkers. Designed for current and prospective teachers and librarians, the course is also intended for others interested in relating to adolescents and adolescent development.

**CRIN T02 - Technology for Special Populations**

*(1)*

The course is an introduction to computer-based instructional and assistive technologies, both current and emerging. The course provides the cognitive and technical skills to integrate computer-based technologies into the learning environment and to identify those supports that will allow students with mild-moderate disabilities access to the general education curriculum.

**CRIN X16 - Supervised Teaching in Special Education - Elementary Students with Disabilities in the General Curriculum**

*(3) Graded Pass/Fail. Prerequisite(s):* Permission of the instructor.
A clinical experience to prepare special educators to work with diverse students with mild/moderate disabilities in the general education curriculum. Candidates are placed in appropriate elementary settings for supervised internship that includes early field experiences during the first 7 weeks, 5 weeks of full-time teaching, and 3 weeks of phasing out part-time. Cooperating teachers and university supervisors regularly observe and conference with teacher candidates. Group seminars via CRIN X63 offer additional developmental support.

**CRIN X17 - Supervised Teaching in Special Education - Secondary Students with Disabilities in the General Curriculum**

*(3) Graded Pass/Fail. Prerequisite(s):* Permission of the instructor.
A clinical experience to prepare special educators to work with students with mild/moderate disabilities in the general education curriculum. Candidates are placed in appropriate secondary settings for supervised internship that includes early field experiences during the first 7 weeks, 5 weeks of full-time teaching, and 3 weeks of phasing out part-time. Cooperating teachers and university supervisors regularly observe and conference with teacher candidates. Group seminars via CRIN X63 offer additional developmental support.

**CRIN X18 - Field Experience Practicum in Special Education**

*(1-3) Graded Pass/Fail.*
This course is designed to provide students a field experience opportunity to observe and work with students with disabilities, and/or students experience academic difficulties, prior to a formal student teaching experience or internship in schools. It is an optional course to accompany special education courses in the School of Education requiring a field experiences.

**CRIN X48 - Current Trends and Legal Issues in Educating Special Populations**

*(3)*
This is an introductory course which examines disabilities included in the Individuals with Disabilities Education Act (IDEA) and emphasizes relevant legislation and litigation which provides a foundation for current delivery of educational services. Course content also provides the opportunity to explore issues related to the education of other groups of exceptional students who might be at-risk for school failure because of special needs; i.e. gifted, limited English proficiency, culturally diverse, and socially maladjusted.

**CRIN X51 - Language Development and Reading Instruction for Exceptional Students**

*(3) Prereq/Corequisite(s):* CRIN X48 or CRIN X53
A course which focuses on normal language development and language communication disorders in exceptional children and youth. Topics discussed include language acquisition in the normally developing child contrasted with developmentally disordered children diagnosed with mental retardation, emotional disturbance, visual and hearing impairments, aphasia, and autism. Emphasis is placed upon development, teacher assessment, and classroom techniques in teaching reading and written language.

**CRIN X52 - Instructional Design/Methods for Students with Disabilities in the General Curriculum**

*(3) Prereq/Corequisite(s):* CRIN X48 or CRIN X53
This course develops content knowledge in fundamental teaching methods (instructional assessment, instructional design, evidence-based instructional methodology, universally designed instruction, accommodations/modifications, data-based decision-making, and individualized planning) necessary for

successful instruction and support of students with disabilities in the general standards-based K-12 curriculum.

**CRIN X53 - Characteristics and Accommodations for Students with Mild/Moderate Disabilities in the General Curriculum**

*(3)*

Characteristics of students with learning and emotional disabilities, traumatic brain injury, and other health impairments participating in the general education curriculum: Definitions, terminology, contributing factors, support needs, and techniques for identifying children and youth with these disabilities are addressed. The impact of these conditions on learning and performance as well as instructional accommodations and service delivery options are examined.

**CRIN X54 - Characteristics and Adaptations for Students with Developmental Disabilities and Autism Spectrum Disorder**

*(3)*

A comprehensive overview of the diagnoses and characteristics of developmental delay, autism spectrum disorder (ASD), and intellectual disability (ID) (i.e., mental retardation). The impact characteristics have on student participation and learning in the general education curriculum, and adaptations to enhance learning while emphasizing individual goals and objectives are addressed.

**CRIN X56 - Classroom Management and Positive Behavioral Supports for Students with Disabilities**

*(3)*

This course explores models, programs, and interventions for meeting the behavioral needs of students with disabilities in the general education curriculum. Classroom organization and management, functional behavioral assessment, behavioral interventions, social skills instruction, and the role of the teacher in designing and delivering classroom management and behavioral supports are stressed.

**CRIN X57 - Advanced Procedures in Classroom Management and Social Intervention**

*(3)*

This course explores advanced issues in and procedures for addressing the social and behavioral needs of students exhibiting persistent and/or severe challenging behavior in school. The course emphasizes examination, synthesis, analysis, and classroom applications of research bases for effective behavioral support strategies and teaching for these students.

**CRIN X59 - Assessment for Instructional Design**

*(3) Prerequisite(s):* Admission to the Special Education graduate program and permission of the instructor.

This course will provide students with information needed to administer and interpret standardized and non-standardized assessments for a variety of purposes including eligibility, instructional design and decision-making. Consideration is given to ethical issues that guide assessment decisions of students with disabilities as well as culturally and linguistically diverse learners.

**CRIN X63 - Special Education Student Teaching Seminar**

*(1) Graded Pass/Fail Prerequisite(s):* CRIN X48 *Corequisite(s):* CRIN X16 or CRIN X17 *Prereq/Corequisite(s): Note: Restricted to Education Majors; Pass Praxis 1*

A seminar designed to provide students an opportunity to reflect on their special education student teaching experiences and their application of knowledge, skills, and decision-making in delivering

specially designed instruction and academic/behavioral interventions for students with mild/moderate disabilities.

**CRIN X83 - Individualized Education Program Transition Planning & Services**
*(3)*
An examination of individualized education program (IEP) transition planning and services that promote positive post-school outcomes for youth and young adults with disabilities. Topics include legislative requirements, transition IEP assessment, writing measurable transition goals, infusing transition competencies into the general curriculum, identifying appropriate programs and transition services, and collaborating with community agencies.

**CRIN X86 - Advanced Teaching Strategies for Exceptional Students with Learning Problems**
*(3) Prerequisite(s):* CRIN X52 or permission of the instructor.
A course designed for students who desire an in-depth look at specialized teaching techniques used with exceptional students. Emphasis is placed on familiarizing the student with the techniques used to remediate specific learning problems, examining applied research to assess the effectiveness of methods, and integrating diagnostic data with instructional modes.

**CRIN X87 - Collaboration for Teaching and Learning**
*(3)*
This course focuses on skills and structures for effective collaboration to provide students with diverse needs, including those with learning and behavioral disabilities, autism, ADHD, and ID, appropriate educational opportunities within the context of the general education curriculum. Communication and collaboration skills and approaches to team problem solving, needs assessment, and collaborative planning and instruction with colleagues, specialists, and families will be explored.

**CRIN 518 - ESL Dual Endorsement Practicum**
*(1) Corequisite(s):* One of the following courses--Elementary: CRIN L20 ; Special Education: CRIN X16 or CRIN X17 ; Secondary: CRIN L29 , CRIN L30 , CRIN L32 , or CRIN L33 .
This course is designed to provide English as a Second Language (ESL) pre-service teachers with opportunities to teach ESL lessons and to reflect on those lessons through post-observation conferences with a qualified University Supervisor.

**CRIN 519 - Methods in Teaching ESL, PreK-12**
*(3)*
This course introduces the student to instructional methods and practices for teaching ESL in PreK-12 classroom settings with a focus on academic language development, providing comprehensible input, increasing background knowledge, developing language and content objectives, vocabulary development, increasing oral language production, selecting culturally responsive materials, integrating language and content instruction, and differentiating according to ELLs' language proficiency levels.

**CRIN 520 - Understanding Language: Second Language Acquisition, Theory, and Practice**
*(3)*
This course examines first and second language acquisition, theory, and practice. In addition, it supports pre-service teachers' understandings of the role of language within the context of specific academic disciplines. Course topics include: Language development, strategies to promote literacies across specific academic disciplines, culturally responsive pedagogy, and assessment for ELs.

**CRIN 521 - ESL Curriculum Design: Teaching ELLs in the U.S.**

*(3)*
This course examines key processes in curriculum design for Teaching English to Speakers of Other Languages (TESOL) and how to develop and align curriculum, instruction, and assessment when applied to the PreK-12 public school setting. This course also introduces best practices for teaching content instruction to ELLs, communicating with and involving families of ELLs in schools, and identifying ELLs for special education and gifted services.

**CRIN 522 - Cross-Cultural & Cross-Linguistic Communication for Educators**
*(3)*
This course introduces students to critically explore ways educators can establish equitable and culturally responsive classrooms. It examines theories related to language, culture, social justice, equity, and advocacy. Students will be able to increase EL's background building and activate EL's prior knowledge within the context of the school and community.

**CRIN 523 - Bilingual Education and Dual Language Programs**
*(3)*
This course introduces students to the foundational principles and practices in the field of bilingual-bicultural education in the U.S. This course provides an overview of how to implement dual language-TWI programs in K12 classrooms. This course explores issues of curriculum development, instruction, and access to resources in bilingual classroom settings.

**CRIN 524 - ESL and Bilingual Education Practicum**
*(3)*
This course is designed to provide ESL/bilingual Education pre-service teachers with ample opportunities to plan, design, and implement lessons adopting an ESL/bilingual perspective. Pre-service teachers will integrate grade-level language and content instruction as they actively reflect during pre- and post-observation conferences with a qualified University Supervisor.

**CRIN 525 - ESL Testing and Evaluation**
*(3)*
This course introduces the students to assessment issues and experience in developing assessment techniques for English language learners. It allows students to differentiate assessments according to students language proficiency levels. It allows students to ensure ELs have equitable access to academic content and language instruction.

**CRIN 526 - Internship in Supervised Teaching ESL/Bilingual Education**
*(8)*
This course is a field-based experience designed to enable ESL/Bilingual Education preservice teachers plan, design, and implement lessons adopting an ESL/bilingual perspective. Pre-service teachers will integrate grade-level language and content instruction as they actively reflect during pre- and post-observation conferences with a qualified University Supervisor.

**CRIN 530 - Teaching With Local History Resources**
*(3)*
This course focuses on how local history (e.g., archives, museums, historic sites) can be used in teaching history, and includes an immersion in Colonial Williamsburg's rich historical environment. Students will engage in classroom and field experiences to learn strategies for incorporating local history resources, experts, and content in their teaching.

**CRIN 540 - Teacher as Inquirer**
*(3)*
This course helps beginning teachers become more effective by critiquing various research paradigms, reviewing the research literature, and systematically collecting and interpreting evidence to improve practice. Students will learn how to identify and use research literature and systematic evidence to improve practice with a focus on students' thinking and learning.

**CRIN 541 - Teacher, Schools & Community**
*(3)*
This survey course focuses on key issues affecting teachers and schools and the communities they serve. For the teacher, students will be introduced to legal, professional, and ethical standards of practice. They will also examine national, state, and local policies impacting teachers, schools, and student learning. In particular, students will examine issues related to school culture and its relationship to providing educational opportunities for all students. Students will explore best practices for collaborating and developing effective relationships with families and other community resources.

**CRIN 550 - Assessment of Learning**
*(1) Prerequisite(s):* Completion of Student Teaching.
A course designed to develop competence in constructing and employing valid and reliable assessments of student achievement at the classroom level.

**CRIN 552 - Assessment of and for Learning**
*(1-3)*
Premised on an understanding of the interrelated nature of curriculum, instruction, and assessment in the teaching and learning process, this course aims to strengthen teachers' ability to create and make meaningful use of a range of valid and reliable classroom assessments.

**CRIN 580 - Clinical Faculty: Roles and Responsibilities**
*(Var.) Prerequisite(s):* Permission of Instructor.
This course prepares experienced teachers for the role and responsibilities of clinical instructors who will supervise William and Mary pre-service teachers and mentor beginning teachers in their schools.

**CRIN 590 - Collaborating with Families and School Personnel**
*(3)*
A course designed to help students develop specific professional skills to facilitate effective communication and collaboration with families, school personnel, and representatives of community agencies who are involved in the development, implementation, and monitoring of appropriate programs for school-age learners.

**CRIN 591 - Current Issues in Curriculum, Instruction, and Assessment**
*(3)*
This course will be a capstone to the C&I program in that it will focus on important issues in implementing and managing curriculum in schools so that students may have the tools to become curriculum leaders. Central to becoming such leaders is learning how to collaborate effectively with fellow teachers and designing and developing standards-based curriculum that reflects differentiated best practice. Use of teaching-learning models that promote critical thinking and metacognition in students will also be employed as tools to help William and Mary students develop reflective practitioner habits of mind.

**CRIN 592 - Creativity and Innovation in Education**

*(3)*
This course focuses on the theory, research, and application of creativity in education and business. It engages students in understanding and mastering the tool skills and processes of divergent thinking in designing educational products.

**CRIN 766 - Advanced Studies in Curriculum Leadership**
*(3) Prerequisite(s):* EDUC 663, EDUC 664
This course allows doctoral students in Educational Policy, Planning and Leadership to work independently with faculty members in C&I. Topics may include, but are not limited to, curriculum development, subject-specific pedagogy, curriculum-based assessment, gifted education, special education, reading/literacy, and educational technology. Permission of the instructor is required, and the student is responsible for identifying, constructing, and completing the independent study under the instructor's tutelage.

## School of Education – Educational Policy, Planning & Leadership Courses (EDUC and EPPL)

**EDUC 603 - The College Student: Developmental Themes and Social Contexts**
*(3) Prerequisite(s):* Admission to a graduate program or permission of the instructor.
This course examines the college student experience from the life-span developmental sociological and cultural perspectives. Students examine and compare major theories and empirical findings in the areas of college student development, the college environment, and the needs and characteristics of various subgroups within the college population. While the primary focus is on the traditional college age group (18-23), the course also addresses the characteristics and needs of older students.

**EDUC 651 - Inquiry I: Data-Based Decision Making**
*(3)*
The central focus of this course is to assist students gain an understanding of the use of data to guide decision making. The nature of various types of data will be explored, as will important design components of inquiry. Students will learn to use a variety of analytic tools that will assist them to address problems of practice.

**EDUC 652 - Inquiry II: Action Research**
*(3)*
This course prepares students to use action research as a strategy for program improvement. Students will learn and practice the generation and analysis of qualitative data. Further, students will practice methods for sharing research findings with interested stakeholders.

**EDUC 653 - Inquiry III: Program Evaluation**
*(3)*
This course addresses the systematic assessment of the merit and/or worth of an educational program. Emphasis is placed on identifying key evaluation questions, defining criteria, data collection and analysis, applying program evaluation standards, and using and communicating findings appropriately and effectively.

**EDUC 694A - Qualitative Research Design & Methods, Part I**
*(3) Prerequisite(s):* EDUC 665 or consent of instructor.
Intermediate-level research design course that focuses upon distinguishing among and combining non-positivistic paradigms, perspectives, strategies, and methods appropriately to address research foci. Students become familiar with qualitative data generation and analysis methods while designing a full-

scale non-positivistic study with a research team. Requires considerable reading, writing, revising, reflection, and collaboration.

**EDUC 694B - Qualitative Research Design & Methods, Part II**
*(3) Prerequisite(s):* EDUC 694A or consent of instructor.
Advanced-level research methods course that builds upon previous knowledge of non-positivistic research design, focusing first upon enhancing qualitative data generation and analysis skills, then upon developing facility with thematic emergence and interpretation, as teams of students complete full-scale non-positivistic studies. Requires considerable reading, writing, reflection, data generation/analysis, and collaboration.

**EPPL 501 - Educational Leadership and Organizational Dynamics**
*(3)*
An introduction to general organizational theories and their application in educational settings. Attention is given to developing the leadership competencies needed for entry-level administrative positions. Influences of local, state, and federal levels of government on school administration are examined.

**EPPL 502 - Educational Leadership: Concepts and Cases**
*(3)*
An application of administrative skills and organizational characteristics in educational settings. Attention is given to building and extending leadership concepts, and applying leadership competencies in school settings. This course is an extension of EPPL 501.

**EPPL 503 - The Administration of Higher Education**
*(3) Prerequisite(s):* Admission to graduate studies or consent of instructor.
This course is a basic introduction to the administration of higher education institutions in the U.S. Course material includes an overview of management functions, governance, authority, organizational arrangements, and administrative style and behavior. Students examine in detail several administrative operations, including offices of academic affairs, student services, business/financial affairs, university advancement, institutional research, registrar, admissions, athletics, building and grounds, facility planning and construction, continuing education, and communications. In addition, students study various agencies of the state and federal governments that are primarily concerned with higher education.

**EPPL 504 - Universal Design for Learning**
*(1) Prerequisite(s):* Teaching experience in K-12 or adult education or enrollment in a School of Education graduate degree program.
Students will explore Universal Design for Learning principles and how they are implemented at different levels of education. Students will learn how to apply these principles to assess the degree to which learner diversity is supported in learning materials, enabling them to make appropriate recommendations for making learning more accessible.

**EPPL 520 - College Teaching Strategies**
*(Variable 1-3)*
A variety of teaching strategies will be reviewed in this course, including, but not limited to: active learning techniques, small and large group discussion formats, collaborative learning, flipped classrooms, and problem based learning approaches.

**EPPL 525 - Assessment and Evaluation to Promote College Student Learning**
*(3)*
This course is designed to explore the foundations of assessment and evaluation of undergraduate learning

outcomes. It develops a historical and theoretical foundation for conceptualizing college student learning outcomes with a specific focus on how assessment and evaluation can be employed to promote student learning in higher education.

**EPPL 530 - Introduction to Student Affairs Administration in Higher Education**
*(3) Prerequisite(s):* Admission to graduate studies or consent of the instructor.
A course designed to provide appropriate experiences for the student who wishes to seek employment in the areas of admissions, student affairs, housing, and food service in institutions of higher education. The course consists of a study of (1) the nature, development, and current status of student personnel services in higher education, (2) major problem areas in the field, and (3) policies and procedures for effective management.

**EPPL 534 - Instructional Leadership: Administering Educational Programs**
*(3)*
A course for school principals and supervisors that focuses on leading and managing the school instructional program. Topics studied revolve around decision making regarding the school curriculum and instructional program.

**EPPL 535 - Instructional Leadership: Assessment and Evaluation**
*(3)*
A course designed to provide individuals with the knowledge and skills required for assessing and evaluating educational programs. Emphasis is placed on the principles of classroom-level assessment practices and program-level evaluation methods.

**EPPL 536 - Instructional Leadership: Supervision and Professional Development**
*(3) Prerequisite(s):* EPPL 501 or permission of instructor.
This course explores the relationship among instructional supervision, professional development, and ongoing improvement of teaching and learning. Students examine the role of the educational leader in creating a culture of change that promotes the personal and professional growth for all members of the school community as well as fosters organizational success.

**EPPL 550 - The Principalship: Managing Instructional Resources**
*(3) Prerequisite(s):* EPPL 501
A course focused on administrative knowledge and skills related to the effective management of school sites. Attention is given to the role of the principal in planning, organizing, and monitoring the effective use of finance, facilities, and technology. Cases and concepts are applied to school improvement practices.

**EPPL 561 - Leadership and Cultural Competence**
*(3)*
This course is designed to present leadership, administrative and cultural knowledge, skills, and strategies in relations to improving the operation of educational institutions. A major focus of the course is to investigate and experience the concept of cultural competence as applied to leadership in educational organizational settings.

**EPPL 585 - Internship in Higher Education**
*(3)*
An internship is required of all master's students in the higher education emphasis. Individual arrangements are made by the student, internship supervisor and faculty.

**EPPL 586 - Internship in Administration & Supervision (PK-12) I**
*(1-3) Graded Pass/Fail. Prerequisite(s):* 21 hours in Educational Policy, Planning and Leadership coursework or permission of instructor.
This internship offers intensive, field-based experiences for aspiring educational leaders. Interns encounter authentic challenges in various educational settings and develop leadership abilities, administrative competencies, and personal confidence to work with and through all members of the schools community to bring about improved teaching and learning. The internship must be completed over 2 consecutive semesters. Internship sites, in cooperating school divisions, will be identified by a team consisting of the student, university intern supervisor, and a practicing administrator or supervisor. An internship plan is then developed which involves the student in an integrated internship experience which includes regular leadership seminars, portfolio refinement and presentation, transitional planning for professional growth, and career advisement and outplacement support.

**EPPL 599A - Educational Research for Practice**
*(3)*
This course provides a foundation for students to conduct their own research based on a problem of practice in higher education. Students will learn how to be critical consumers of educational research and how to identify a problem of practice. The course includes an introduction to qualitative methods and to introductory statistical methods. A review of ethical considerations for research will occur.

**EPPL 599B - Master's Project**
*(3)*
The master's project is a capstone course that represents a culmination and synthesis of student learning over the entirety of their master's program. Students will conduct independent research, build programs or resources for higher education practitioners, or produce a scholarly proposal.

**EPPL 601 - Educational Policy: Development and Analysis**
*(3)*
This course provides the opportunity for students to have a clear understanding of how policy works in education, how to analyze and formulate educational policies, and who the key interest groups and players are in the making of policy.

**EPPL 602 - Educational Planning**
*(3)*
This course is designed to present knowledge, skills, strategies, and applications of planning for educational organizations. Major foci of the course include methodologies for educational planning to include determining present status, determining future direction, charting a course of action, and assessing progress toward and achievement of desired outcomes.

**EPPL 603 - Leadership in Education**
*(3)*
This course provides the opportunity to examine theoretical and practical applications of leadership in order to develop the knowledge, skills and attributes required of an effective leader in contemporary educational settings.

**EPPL 604 - Cross Disciplinary Perspectives in Educational Theory, Research and Practice**
*(3)*
This course explores the structure of knowledge, focusing in particular on the social sciences and humanities, and engages students in the process of conceptualizing educational research problems that are based in social science and humanities theory and models. Considering basic conventions and principles

from anthropology, sociology, social psychology, political science, and the humanities, students explore and apply various theoretical perspectives to potential research topics in education.

**EPPL 612 - Curriculum and Instruction for Gifted Learners**
*(3) Prerequisite(s):* CRIN G80 or equivalent.
This course involves the study of differentiated curriculum and instruction for gifted learners. The course will focus on key content, process, product, concept and implementation issues in working with the gifted in various domains of inquiry.

**EPPL 613 - The Academic Life**
*(3)*
Collegiate curriculum and faculty are intimately intertwined. This course explores how the logic of faculty socialization and career development relates to the evolution of teaching and learning environments in colleges and universities. Career issues and the institutional roles of the faculty and curricular forms, functions, processes, content and contexts are examined.

**EPPL 615 - Higher Education Operations Management**
*(3)*
This course explores the practical application of organizational operations and legal principles to human resource management and supervision in higher education. Students will examine common and current issues in human resouces, supervision, and legal compliance through the use of case studies.

**EPPL 617 - Institutional Advancement**
*(3)*
Institutional Advancement is a large part of the higher education enterprise. It encompasses all aspects of fund raising, alumni relations, and public relations. Participants will learn to think and plan critically using data based decision making as they view campus issues, problems and relationships through the lens of institutional advancement.

**EPPL 618 - Large Scale National Data Sets: IPEDS**
*(3)*
This course provides an overview of an array of quantitative information about higher education, including a sampling of some of the data resources available and their relative strengths and weaknesses. In addition, students are introduced to different methods of analyzing and presenting quantitative research to critically analyze data.

**EPPL 619 - Organizational Theory & Change**
*(3)*
This course provides an overview of organizational theory and change theories. Attention is given to organizational structure, operations, and context of institutions of higher education, both domestically and internationally, and on leadership of change initiatives. Consideration of internal and external influences on administrative roles, using diverse perspectives, provides analytical approaches.

**EPPL 620 - Understanding and Facilitating Learning in Higher Education**
*(3)*
Students will learn how to apply theory and practice about the science of human learning to a variety of domains of professional practice. Practical projects that draw on relevant literature will provide students

opportunities translate research to practice, with the goal to obtain a solid understanding of the complexity of human learning.

**EPPL 621 - Intergration of Learning**
*(3)*
College students lead complex lives and learn from numerous sources both in and out of the traditional classroom. In this course, we study how people integrate learning and examine educational practices and conditions that promote integration of learning among college students.

**EPPL 622 - Leading for Learning: Curriculum and Assessment**
*(3)*
This course focuses on the distinct and interrelated roles of curriculum, instruction, and assessment in leading educational programs in K-12 schools. Accentuating the perspective of district-level leadership, the course draws upon theory, research, and applied practice to support teaching, learning, and accountability in schools.

**EPPL 623 - Leading for Learning: Teaching and Learning**
*(3)*
An advanced exploration of distinctions and interrelationships among instructional supervision, professional development, and ongoing improvement of school and system-wide teaching and learning. Students examine roles of educational leaders in creating cultures of change that promote personal and professional growth for all members of the school community and foster organizational success.

**EPPL 625 - Current Issues in Higher Education**
*(3) Prerequisite(s):* Admission to graduate studies or consent of instructor
A study of contemporary higher education in the United States as a specialized field of inquiry and as a professional area in which to work. Attention is centered on current issues emphasizing organization and administration, curriculum, college students, faculty, non-teaching professionals, and finance.

**EPPL 628 - The History of Higher Education**
*(3) Prerequisite(s):* Admission to graduate studies or consent of instructor.
This graduate course presents critical analysis and interpretation of historical developments in higher education from the medieval to modern periods. Emphasis is on key institutions, episodes, and social trends which illustrate the continuities, complexities, and changes in colleges and universities. Students are introduced to the use of historical documents and the logic of historical analysis.

**EPPL 632 - The Community College**
*(3)*
The focus of this course is on the development and structure of the community college: its history, purpose, characteristics, social function, organization and administration, curriculum, faculty, and students. The open access mission of community colleges results in more diverse populations of students being served, which provides a model internationally for countries creating two-year institutions.

**EPPL 633 - Planning and Management in School Finance and Facilities**
*(3)*
A study of the historical development, design, and management of school facilities and systems of financing education. Topics include forecasting need, potential sources of revenue, state and local systems of finance, financial management, budget development, and construction management. Selected state models for funding education and facilities will be examined.(This course replaces EPPL 631 and EPPL 675.)

**EPPL 635 - Advanced Organizational Theory and Governance of Higher Education**
*(3)*
This course provides an advanced study of organizational theory and governance in PK-12 schools and higher education. Attention is given to understanding how organizational theory supports leadership and operational decision making, as well as how institutional characteristics, settings, and internal and external influences, both domestically and internationally, influence outcomes.

**EPPL 638 - Internationalization of Higher Education**
*(3)*
This course explores the role of internationalization of higher education in different contexts and from varied perspectives, with a focus on intercultural development for students and the associated institutional practices supporting this learning. Attention is paid to the process of internationalization in the U.S. and outside of the American system.

**EPPL 640 - Administration and Supervision of Special Education**
*(3)*
A study of the role of the administrator of special education programs. Emphasis is placed on planning implementation, and assessment of programs in rural, urban, and suburban settings.

**EPPL 642 - Leadership for School, Family and Community Partnerships**
*(3)*
A course focused on the principles, knowledge, and skills related to effective interpersonal and public relations in educational organizations. Special emphasis is given to the study of communication theory and practice, the social ecology of organizations, conflict and crisis management, community relations, strategic marketing in educational organizations, and legal and ethical considerations.

**EPPL 643 - Human Resources Administration**
*(3)*
A study of personnel services for educational and public agency administrators. Selected personnel functions including planning, recruitment, selection, induction, compensation and evaluation are discussed.

**EPPL 645 - Executive Leadership in Organizations**
*(3) Prerequisite(s):* Master's degree in educational leadership, admission to EPPL doctoral program or permission of instructor.
This course is concerned with applying and synthesizing functions and responsibilities of executive-level central office personnel and the school superintendent within the context of dynamic educational organizations.

**EPPL 650 - Developmental Perspectives in Gifted Education**
*(3)*
This course focuses on the issues associated with the development of gifted individuals over the lifespan from a cognitive, psychosocial, and physiological perspective. Emphasis will be placed on exploring positive deviance in early childhood, middle childhood, adolescence, and adulthood. The role of institutions, individuals, and intrapersonal influences on the developmental process of talented learners will be explored and implications for program development and administration stressed.

**EPPL 651 - Designing and Developing Curriculum**
*(3)*
Students examine and critically evaluate the philosophical, socio-historical, and pedagogical foundations

of K-12 curriculum to understand assumptions and axioms of educational programs. Students investigate applied theories and models of curriculum design and development, synthesizing perspectives from educational, policy, planning, and leadership in order to effectively engage in curriculum leadership.

**EPPL 652 - Engaging Students in Learning**
*(3)*
Students will explore and critique theories of motivation, engagement, student voice, and Universal Design for Learning. They will also investigate how they are implemented in K-12 classroom practice. Students will then apply the principles to the revision or design of curriculum materials, making them maximally engaging and inclusive for students.

**EPPL 653 - Designing for Learning**
*(3)*
This course helps students to explore, analyze, apply, and critique multiple frameworks for and approaches to learning design that are used in K-12 educational contexts. Students will compare, contrast and evaluate differing ways to conceptualize and effect learner-focused, curriculum-based design processes and products according to relevant educational research and theory.

**EPPL 654 - Assessing Learning**
*(3)*
In this course, students will apply systems theory to an advanced-level examination of the foundations and assumptions undergirding research, policy, planning, and leadership for K-12 assessment and evaluation of learning. In addition, students will develop skills in designing, developing, and critiquing assessments at all levels of the K-12 education system.

**EPPL 655 - Learning in Context**
*(3)*
Using bioecological systems theory to help students to identify, explore and comprehend overlapping, interdependent micro-, meso-, exo-, macro-, and chrono-level influences upon learning, this course will address the nature of K-12 teaching within multileveled, simultaneous, diverse, and competing social, cultural, historical, political, economic and psychological contexts.

**EPPL 656 - Leveraging Technology for Learning**
*(3)*
This course will familiarize students with multiple models of effective K-12 curriculum-based technology integration. The processes and outcomes of technology integration will be explored through analysis of research and review of authentic curriculum-based examples. Students will create their own technology integration learning designs in a curriculum area of their choosing.

**EPPL 657 - Evaluating Curriculum and Learning Design**
*(3)*
Students examine and critically evaluate the theoretical foundations of and approaches to the evaluation of K-12 curricula. With a focus on school-based curricular and co-curricular programs, students identify effective practices while synthesizing perspectives and skills from educational, policy, planning, and leadership in order to effectively engage in curriculum evaluation.

**EPPL 660 - Educational Law**
*(3)*
An examination of principles of school law by use, in part, of the case study approach. Legal foundations of public and non-public schools are studied with consideration given to the Virginia School code. Basic

legal principles and guidelines for assisting teachers, administrators, and professional support personnel are developed.

**EPPL 661 - Higher Education Law**
*Var (1-3)*
A course for advanced graduate students that examines constitutional, statutory, and case law relevant to higher education and the implications of this body of law for policies and practices affecting students, faculty, administrators, and staff. Students will learn basic legal concepts and become familiar with relevant legal terminology.

**EPPL 662 - Sociology of Higher Education**
*(3)*
The course will analyze issues central to the study of higher education through frameworks that consider social and cultural processes at work in higher education, structural and contextual factors that impact practice and participation, and implications for educational policy rising out of sociological approaches to higher education.

**EPPL 670 - Programs and Models in Gifted Education**
*(3) Prerequisite(s):* CRIN G80
This course focuses on the fundamental principles of program design and development for gifted learners. Role functions and reference groups are emphasized as well as general educational administration and supervision theories. Program evaluation models are also stressed.

**EPPL 676 - The Financing of Higher Education**
*(3)*
Students will obtain an overview of the financing of higher education, both nationally and internationally. Students will review the main issues in finance, develop the ability to examine and analyze financial statements, assess the budget as an instrument of control, and relate the budget to the educational program. Cross-listed with (PUBP 644)

**EPPL 678 - Branding in Higher Education**
*(3)*
Increased competition for students and dwindling budgets require colleges and universities to assess their institutional identity and, in turn, develop a distinctive brand position within a competitive marketplace. This course will examine the necessary steps institutions of higher learning must take to inform, embrace, and execute a compelling brand identity.

**EPPL 680 - Teaching and Learning in Digital Spaces**
*(3)*
This course helps students to explore multiple ways to use online tools and resources to support learning in K-12 and postsecondary educational contexts. Students will investigate, experience and consider many methods of structuring, facilitating, and evaluating learning with networked media, leading to designing effective and inclusive online and hybrid learning.

**EPPL 681 - Designing and Supporting Professional Learning**
*(3)*
This course helps students investigate a range of models for professional development for K-12 and postsecondary faculty in education. Students will explore, synthesize, and apply educational research and theory concerning the diffusion of innovations, adult education, and teacher learning, culminating in the design of a professional learning experience for educators.

**EPPL 686 - Readings and Research in Curriculum**
*(3)*
Students deeply read, critically examine, evaluate, and synthesize seminal historical and influential contemporary texts on curriculum. Through a seminar format, critical reading, and scholarly writing, students identify, question, refine, articulate, and defend their assumptions, beliefs, principles, and positions relative to K-12 curriculum theory, design, development, implementation, evaluation, policy, and leadership.

**EPPL 690 - Researching Social Processes in K-12 Schools**
*(3) Prerequisite(s):* EDUC 663, EDUC 665
In this research seminar, students will explore the relationships among a variety of school-level constructs in order to understand the central importance of social processes to the functioning of K-12 schools and districts. Students will frame hypotheses, conduct a research study, and report their results guided by the specifications of a scholarly journal.

**EPPL 712 - Administration and Policy Issues in Gifted Education**
*(3) Prerequisite(s):* EPPL 670
This course focuses on the in-depth study of issues and competencies related to administration and policy in gifted education at local, state, regional and national levels. Research and development concerns and practical applications of the state-of-the-art knowledge-base in the education of the gifted are emphasized.

**EPPL 713 - Higher Education and Public Policy**
*(3)*
A seminar for advanced graduate students in which the general topic of the relationship between the government and higher education is developed. Major attention is given to developments since World War II. Cross-listed with (PUBP 645)

**EPPL 720 - Seminar in School Neuropsychology**
*(3)*
In this course students will learn contemporary neuropsychological theory and assessment techniques. Emphasis will be placed on the application of this knowledge to assessment practices in the schools. The relationships between neuropsychology and disabilities will be highlighted, and students will learn about evidence-based interventions related to neuropsychological functioning.

**EPPL 721 - Leading for Change: Evidence-based Intervention & Interpretation**
*(3)*
In this course students will focus on review of biological, social, and psychological etiology of social-emotional disorders, and planning and implementation of individual and systems interventions for disruptive behaviors in classroom settings. The course will also focus on facilitating collaborative relationships to develop and enhance consultation to support multi-component behavioral interventions. The course will review the impact of child and adolescent disruptive behaviors for school divisions, families and society.

**EPPL 722 - Advanced Psychoeducational Assessment & Evaluation**
*(3)*
In this course students will apply evidence-based theory and practice to the development of advanced skills in psychoeducational assessment of children and adolescents. Emphasis will be placed on current theory and approaches to interpretation and integration of assessment data for diagnostic and intervention purposes.

**EPPL 733 - Seminar on Legal Issues in Education**
*(3) Prerequisite(s):* EPPL 660 or a comparable course.
An advanced seminar on school law designed to explore legal issues of interest to graduate students.

**EPPL 734 - Seminar in Human Resource Leadership in Education**
*(3) Prerequisite(s):* EPPL 643 or consent of instructor.
A seminar in the study of human resource leadership with a particular focus on school improvement. The intersection among, theory, research, and practice relative to the issues of educational change, quality-based recruitment and selection, innovative compensation packages, performance evaluation, and legal policy will be featured. The framework for review, discussion, debate, and development of these issues is decision-making relative to teacher quality.

**EPPL 741 - Critical Issues in Curriculum, Instruction, & Assessment**
*(3)*
This course for advanced doctoral students draws upon a range of paradigms, theories, disciplines, sources, and methods to identify and critically examine current and perennial issues in K-12 schools related to curriculum, instruction, and assessment. In a seminar format, students apply and further develop scholarly research, presentation, and writing skills.

**EPPL 742 - Seminar on Teacher and Leader Effectiveness**
*(3)*
This seminar addresses effective teaching and leading within the context of quality K-12 schooling. Intersections among theory, research, and practice relative to issues of educational change, school improvement, and the roles and impact of effective teachers and leaders within schools will be discussed, debated, and developed using a decision-making framework.

**EPPL 753 - Leadership for Social Justice, Equity & Excellence**
*(3)*
This course is designed to examine educational policies, practices, and programs necessary to eliminate barriers to learning and achievement based on gender, race/ethnicity, national origin, disability, socio-economic status, language, faith and sexual orientation. Emphasis is placed on leadership responses to issues related to various dimensions of diversity reflected in contemporary school settings.

**EPPL 760 - Independent Study in Educational Policy, Planning and Leadership**
*(Var 1-6) Prerequisite(s):* Permission of the instructor.
This course provides the opportunity for an advanced graduate student to pursue a topic of personal interest or need with the guidance and supervision of a member of the faculty.

**EPPL 765 - Applied Field Research Project**
*(3) Graded Pass/Fail. Prerequisite(s):* EDUC 663, EDUC 664, EDUC 665, successful completion of comprehensives.
This course is designed to provide advanced graduate students with opportunities to apply their research knowledge to a research study in their area of interest in either educational administration, special education, gifted education or higher education. Emphasis is on conducting research in collaborating with faculty or graduate students.

**EPPL 775 - Doctoral Internship in University Teaching**
*(3) Graded Pass/Fail*
The doctoral internship provides supervised experiences in teaching, supervision, and service to the profession and public. Each student develops the internship program according to areas identified by the

student and advisor that are necessary to preparation as a university instructor and supervisor and that are relevant to the specific career goals of each student.

**EPPL 781 - Executive Ed.D. Program Research Seminar I**

*(1) Graded Pass/Fail*

This course is designed to provide advanced graduate students in the Executive Ed D Program with opportunities to progress in the application of research knowledge in an area of interest in educational administration. Participants will explore and engage in elements of action research and program evaluation, including theoretical concepts, research design, and methodological tools. Emphasis is given to the process of conducting research in collaboration with their committee chair, groups and/or individuals within their school of context and a collaborative group of graduate students within the cohort.

**EPPL 782 - Executive Ed.D. Program Research Seminar II**

*(2) Graded Pass/Fail*

This course is designed to provide advanced graduate students in the Executive Ed D Program with opportunities to progress in their research proposal in an area of interest in educational administration. Emphasis is given to the development of the dissertation research proposal in collaboration with their committee chair, groups and/or individuals within their school of context and a collaborative group of graduate students within the cohort.

**EPPL 790 - Educational Policy, Planning and Leadership Research Seminar**

*(3) Graded Pass/Fail. Prerequisite(s):* EDUC 663, EDUC 665, EDUC 694A, EDUC 694B *Note: Students may be exempted from the EPPL 790 requirement and instead substitute 3 hours of EDUC 800 with prior permission of the advisor and dissertation chair.*

This seminar provides advanced doctoral students an opportunity to prepare to conduct their dissertation research by creating sections of a draft proposal that reflects an understanding of problem identification, research design, literature review, and technical writing associated with conducting original research in areas related to Educational Policy, Planning, and Leadership.

**EPPL 801 - Dissertation Study**

*(1-6) Graded Pass/Fail. Prerequisite(s):* Executive Ed.D. students only; permission of instructor.

Variable credits; 1 credit min.

## School of Education – School Psychology & Counselor Education Courses (EDUC)

**EDUC C29 - Substance Abuse and Society**

*(3)*

This course examines substance use and abuse in contemporary society. Topics are treated from a multi-disciplinary perspective including biological, social, pharmacological, cultural, psychological, political, economic, and legal aspects of substance abuse. Patterns of addiction, intervention and rehabilitation in respect to substance abuse also are analyzed. Assessments of the costs, options, and alternatives to addiction along with educational efforts toward prevention are examined.

**EDUC C31 - Career Development**

*(3)*

A study of the occupational structure of our society, of factors influencing career development, and of techniques for providing educational and occupational information. Both individual and group activities are stressed.

**EDUC C32 - Theories of Counseling and Psychotherapy**

*(3)*
A study of the major concepts and practices of contemporary therapeutic systems as well as an overview of developmental and psychopathological issues presented by clients.

**EDUC C33 - Techniques of Counseling**
*(3) Prerequisite(s):* Permission of the instructor.
An intensive study of techniques utilized in individual counseling. Extensive use is made of case data and role playing.

**EDUC C34 - Group Theory and Techniques**
*(3)*
Group Theory & Techniques provides both theoretical and experiential understandings of group purpose, development, dynamics, techniques and skills, and various group approaches. The course focuses on helping beginning group leaders apply their new knowledge to working in groups with children, adolescents, and adults across diverse settings. Counseling theories and their application to working with groups are given consideration throughout the course. Through the use of experiential activities, both in and outside the classroom, students will acquire experience in conducting counseling, psychoeducational, and task/work groups.

**EDUC C35 - Introduction to Professional School Counseling**
*(3)*
This course is designed to give prospective school counselors: (a) an understanding of the historical impetus which led to the development of counselors and counseling programs in schools; (b) a means to make practical use of the counseling and guidance theories and techniques as they apply in the Council for the Accreditation of Counseling and Related Educational Programs (CACREP) requirements; (c) exposure to administrative activities which provide the framework for school counseling services; (d) prevention and intervention strategies which contribute to students' academic career, and personal social growth and development; and (e) an understanding of proactive leadership as it relates to student advocacy as well as the challenge of developing new paradigms for the future

**EDUC C42 - Supervised Practicum in Counseling**
*(3) Graded Pass/Fail. Prerequisite(s):* EDUC C32  EDUC C33 and EDUC C34
The Counseling Practicum course is designed to provide students in counseling with their first client contact in a closely supervised setting. It is designed to help students begin to translate their academic understanding into actual counseling practice. Students complete a pre-determined number of hours of individual and group counseling in laboratory and field settings under supervision by doctoral-level Practicum Supervisors, the counseling faculty, and qualified field placement site supervisors.

**EDUC C43 - Professional, Ethical and Legal Issues in Counseling**
*(3)*
This course will provide students with a foundation in issues that affect the profession of counseling. Students will examine: (1) professional issues, including professional identity, history and systems of counseling, professional organizations, counseling settings and counselor functions, and research issues affecting the conceptual base of the profession, (2) counseling ethics and ethical dilemmas, and (3) legal decisions that affect the practice of counseling. The course will emphasize active student participation in the exploration of these issues.

**EDUC C44 - Addictions Counseling**
*(3) Prerequisite(s):* EDUC C29 , EDUC C32 , EDUC C33 and EDUC C34
This course is designed to cover those counseling theories and techniques utilized with clients suffering

from addictions or substance abuse. Treatments will be discussed from the perspective of the medical, recovery, and transpersonal models of addiction.

**EDUC C45 - Transpersonal Counseling: Theory, Research and Practice**
*(3)*
This course offers an analysis of the field of transpersonal counseling; theory, research, and practice. The relationship of transpersonal theories to traditional theories will be examined. Special attention will be devoted to the use of transpersonal approaches in addictions counseling and substance abuse prevention.

**EDUC C46 - Contemporary Issues in Clinical Mental Health Counseling**
*(3)*
This course provides counselors who will work as licensed practitioners in clinical mental health settings with an understanding of the historical and philosophical background of clinical mental health counseling. It will cover the forces that influence the development of clinical mental health counseling, the role of the clinical mental health counselor, professional issues unique to clinical mental health counseling, client characteristics, principles of clinical mental health counseling, community needs assessment, and counseling program development.

**EDUC C47 - Internship in Clinical Mental Health Counseling**
*(3) Graded Pass/Fail. Prerequisite(s):* EDUC C32, EDUC C33, EDUC C34, EDUC C42, and EDUC C43
The internship practicum is designed to give students the opportunity to demonstrate and improve their counseling skills in an agency setting. Students complete a minimum of 300 hours of counseling experience in a community agency setting under both university and field supervision. In addition, participation in a weekly group supervision session and an experience log are required.

**EDUC C49 - Supervised Internship in School Counseling**
*(3) Graded Pass/Fail. Prerequisite(s):*
EDUC C32, EDUC C33, EDUC C34, EDUC C42, and EDUC C43
This counseling internship is designed to give advanced students in counseling the opportunity to put into practice the skills and knowledge they have developed throughout their counseling program. Students complete a minimum of 600 hours of counseling experience in a school setting under both college and field supervision. In addition, participation in a weekly group supervision session on campus is required.

**EDUC C50 - Internship in Addictions Counseling**
*(3-6) Prerequisite(s):*
EDUC C29, EDUC C32, EDUC C33, EDUC C34, EDUC C44 and permission of instructor.
This counseling internship provides advances training, supervision and skill development in addictions counseling with individuals; addictions counseling with groups; and special topics in addictions counseling at the Counselor Education Clinic. All interns must attend two hours of weekly group supervision ad a minimum of one hour of weekly individual supervision.

**EDUC C51 - Military Life, Culture, & Challenges**
*(3)*
This course introduces students to the distinguishing characteristics of contemporary life in the U.S. military. The course also examines the history and mission of the various U.S. military branches as well as the unique military values, social structure, chain of command, work ethic, job demands, and language that may distinguish active military members and veterans from their civilian counterparts. The course goal is to enable student counselors to connect more readily with military and veteran clients and their families through increased knowledge and sensitivity to those clients' unique needs.

**EDUC C52 - Assessment and Treatment of Trauma-Related Disorders**
*(3)*
This course informs students about the impact of trauma on human functioning and provides them with a basic conceptual framework and skills for counseling people who are suffering from trauma-related disorders. Students will learn to recognize the physical, cognitive, emotional, and behavioral symptoms of trauma-related stress reactions (e.g., post-traumatic stress disorder, moral injury) and traumatic brain injury and apply select counseling interventions to assist clients who are exhibiting those symptoms. Students will also learn to recognize the limits of their expertise in addressing trauma-related disorders and when and where to make appropriate referrals for specialized intervention services.

**EDUC C53 - Military-to-Veteran Transition**
*(3)*
This course introduces students to the challenges being faced by today's military service members and their families as they transition from military to civilian life. Pressing issues such as divorce, physical and psychological disability, substance abuse, suicide, unemployment, violence, and homelessness will be examined as they relate to the military veteran population. Students will develop a working knowledge of federal, state, and local support resources that are currently available to assist military service members in the transition process. The course goal is to provide student counselors with the information and tools they need to effectively assist military clients in anticipating and overcoming the challenges of soldier-to-veteran transition.

**EDUC C91 - Advanced Issues in Professional School Counseling**
*(3)*
Designed as a "bookend" course to complement "Introduction to School Counseling" and to serve as a capstone to the school counseling track, this course acquaints students with the planning, development, implementation, and evaluation of comprehensive school guidance and counseling programs

**EDUC F09 - Human Growth and Development: A Life-Span Perspective**
*(3) Prerequisite(s):* Admission to a graduate program or permission of the instructor.
An investigation of the nature of developmental themes and tasks across human life span from infancy through the late adult years. The life-span developmental approach used incorporates knowledge from multiple disciplines to describe and explain developmental processes in their many contexts: physical, familial, psychological, historical, and socio-cultural. A major focus is the application of theory and research to the promotion of healthy development through education and human services.

**EDUC F11 - Social, Philosophical, Cultural, and Historical Foundations of Education**
*(3)*
Inquiry into the historical, philosophical, cultural and educational and social context of schools in our diverse society. Broad, interdisciplinary perspectives on educational and social issues to guide reflective, professional practice.

**EDUC F12 - Advanced Educational Psychology and Development**
*(3)*
A course that examines psychological theories and research findings dealing with child and adolescent development and learning. Special emphasis is placed upon the ways in which theoretical and empirical findings in educational and developmental psychology have been translated into educational practice.

**EDUC F65 - Research Methods in Education**
*(3) Prerequisite(s):* Admission to a graduate program or permission of the instructor.
A study of the methods and techniques generally employed in research. Emphasis is placed on

understanding the research literature which forms the basis of professional education. The course includes the study of some selected statistical methods used as tools in research, data analysis, and the field of educational tests and measurement.

**EDUC F67 - Psychological and Educational Measurement**
*(3)*
An introduction to the use of educational and psychological assessment procedures used by educators and other helping professionals. The course deals with the selection, administration, and scoring of psychological assessment techniques and the interpretation and application of their results.

**EDUC P20A - Psycho-educational Assessment for School Psychologists**
*(4) Prerequisite(s):* Admission to the M.Ed. Program in School Psychology and concurrent enrollment in EDUC F67
This year-long course sequence is designed to introduce students to a problem-solving model of assessment for addressing children's educational and behavioral problems. The model defines educational problems situationally as the difference between what is expected and what occurs. These difficulties do not reside solely within the individual child, but result from the interaction between student behavior, curriculum, and instruction. The model defines 'effective assessment' as assessment which evaluates the situation as well as the child and which produces effective interventions. Effective assessment employs standardized tests, rating scales, structured interviews, record review, systematic observation, and curriculum-based measurement. Training and practice in the assessment techniques and application of this problem-solving model will be the focus of this course. Specifically, students will develop competencies in the following areas of assessment: intellectual ability, academic achievement, processing skills, personality and behavior problems, observations and interviews. Students will communicate assessment findings and recommendations clearly and concisely in jargon-free, family-friendly reports. A practicum is an essential and necessary component of this course. Students must achieve a grade of 'B' or above each semester.

**EDUC P20B - Psycho-educational Assessment for School Psychologists II**
*(4)*
This course is the second half of a year-long course sequence designed to introduce master's-level students to a problem solving model of assessment for addressing children's educational and behavioral problems. Instruction and practice in the application of this problem solving assessment model will be the focus of this course.

**EDUC P23 - Introduction to Professional School Psychology**
*(3) Prerequisite(s):* Admission to the M.Ed. Program in School Psychology.
This course provides an introductory survey of school psychology as a specialty of professional psychology. The roles and functions of the school psychologist will be explored as they relate to Virginia and the nation; political and legal implication of these roles are identified. This introduction encompasses numerous topics including the historical development of the specialty; relationship to other specialties in psychology and education; graduate training and models of professional preparation; licensure and certification; special education laws relevant to the practice of school psychology; diversity of practice settings; and diversity of client populations served. The course includes an experiential component in which students are required to visit local schools and observe a variety of educational and psychological programs and practices.

**EDUC P24 - Practicum in School Psychology**
*(3) Graded Pass/Fail. Prerequisite(s):* Enrollment in the School Psychology Program.
A field-based experience designed to provide opportunities for students to gather knowledge and skills

most appropriately learned in the field and to refine skills learned in the university training program. Practicum experiences include administration and interpretation of diagnostic assessment instruments; participation in team meetings; consultation with teachers, parents, and administrators; and intervention with children.

**EDUC P56 - Consultation in the Schools**
*(3)*
The course assists students in developing their skills in consultation with particular emphasis upon working with parents and teachers.

**EDUC V63 - Problems in Education**
*(Var.) Prerequisite(s):* Permission of Instructor.

**EDUC V91 - Independent Study in Education**
*(Var.) Prerequisite(s):* Permission of Instructor.

**EDUC 500 - Global Studies**
*(1-6)*
This course involves travel to an international site location and immersion in a foreign culture to allow for study of educational topics in context. The course sites for this course vary over time. Pre-trip and post-trip work is common.

**EDUC 501 - Community Well-Being and Peace Education**
*(6)*
This study abroad course examines the Rwandan genocide. Specifically, we will identify what contributed to the genocide occurring as well as the subsequent peace, community well-being, and ultimately social and individual healing and restoration that has emerged in the 25 years since the genocide.

**EDUC 582 - New Science of Creativity**
*(3)*
This course demonstrates that the creative process is a skill set that can be taught, fostered, and developed, and explores contemporary scientific theories regarding the nature, measurement, and development of creativity. It focuses on examining creative climate, attitude, and thinking (Creative CAT) from the perspectives of everyday and eminently creative artists, theorists, philosophers, scientists, politicians, businessmen, and leaders. It offers suggestions for enhancing Creative CAT in every endeavor.

**EDUC 601 - Advanced Group Work and Theory**
*(3) Prerequisite(s):* EDUC C34 or an equivalent introductory course in Group Counseling.
This course is designed for students wishing to pursue advanced study in group theory, group leadership, group processes, and group supervision. The course may examine contemporary trends and developments in group counseling as well as ethical, legal, and professional issues affecting the practice of group counseling.

**EDUC 622 - Counseling Theories and Techniques**
*(3)*
This course is designed to provide an overview of the theories and techniques of counseling that can be applied in diverse helping professions with school-aged and college-aged students. Emphasis will be placed on key concepts, therapeutic process and goals with respect to each theory/technique; and the application of skills.

**EDUC 624 - Theory and Practice of Multi-Cultural Counseling**
*(3) Prerequisite(s):* EDUC C32
This course is designed to familiarize the student with the cultural differences of the major racial/ethnic minorities in the United States. Through self-disclosure, individual experiences, group presentations and lectures, the students will gain a better knowledge of these groups and the cross-cultural counseling methods to work with them.

**EDUC 625 - Couples Counseling and Sex Therapy**
*(3)*
A course to give students an increased awareness of sexual issues and problems so that they can be sensitive and helpful to the people they counsel who have sexual difficulties or questions. It is also for counselors, teachers, or administrators who will be involved in implementing or teaching programs of sex education. The course includes presentation of factual information, and curricula and theories of sex education and therapy, as well as an opportunity for students to explore their own sexual attitudes, feelings, and values.

**EDUC 626 - Seminar in Professional School Psychology: Ethical and Legal Issues**
*(3) Prerequisite(s):* Enrollment in the School Psychology Program.
This course, designed for students in the School Psychology Program, provides students with the opportunity to become familiar with the roles and functions of fellow professionals in educational and agency settings. This course also examines professional issues in school psychology including principles of professional ethics, ethical dilemmas, and relevant legislation and litigation. Emphasis is placed on active student participation in the exploration of these issues.

**EDUC 627 - Marriage and Family Counseling**
*(3) Prerequisite(s):* EDUC C32 and EDUC C33 or permission of instructor.
A survey course that examines the origin and dynamics of family systems theory and its application to the practice of marriage and family counseling. Students are introduced to various theoretical explanations for why people behave the way they do in marital and family relationships, to verbal and nonverbal interaction patterns operating within family relationships, and to multiple approaches to therapeutic intervention with families.

**EDUC 629 - Individual Appraisal**
*(3)*
This course is intended to provide doctoral counselor education students with advanced training in assessment. The course design is consistent with the goals training counselor educators to be leaders, scholars who will contribute to the advancement of knowledge in the profession. In order to fulfill these roles, William & Mary counselor education doctoral students must be familiar with and skilled in the development of valid and reliable research instruments that can be used to answer research questions that will advance our profession.

**EDUC 630 - Family Development and Processes**

*(3)*
This class is designed to inform students about family life cycle development, conceptualizations of normalcy from a systems perspective, and assessment of family functioning. Students will learn to recognize family strengths within a variety of family forms, and explore the impact of contemporary values on families and their communities.

**EDUC 632 - Advanced Theories of Counseling and Psychotherapy**
*(3) Prerequisite(s):* Permission of the instructor.
A doctoral course that critically examines select, contemporary, theoretical orientations to counseling and psychotherapy in order to facilitate informed understanding through critical analysis of contemporary literature, to promote insight into current clinical applications, and to promote students' ability to articulate an identifiable, integrated, and defensible theoretical approach to clinical practice and research.

**EDUC 635 - Advanced Family Counseling: Theories and Techniques**
*(3)*
This class is an advanced seminar designed to critically examine conceptual models, clinical practices, and assumptions that organize work with families. The texts, selected readings, class discussions, and writing assignments will address modernist and post-modernist theoretical paradigms, as well as relevant ethical codes, with emphasis on application to clinical practice.

**EDUC 636 - Addictions and Family Systems**
*(3)*
This course is intended to merge the conceptualization and practice of two areas, family systems and addictions. The course is designed to explore these two areas, their impact on each other, and to present an integrated view of family systems and the process of addiction and recovery.

**EDUC 638 - Prevention and Intervention within Public Schools**
*(3)*
This course informs school psychology graduate students about effective prevention and intervention programs and strategies that can be implemented within public school settings. The course highlights empirically supported methods for promoting school success through both preventative and remedial strategies across the grade levels. School-based strategies for enhancing academic achievement, fostering social competence, and preventing behavior and adjustment problems will be presented. Students will begin to develop expertise in designing, implementing, and evaluating prevention and intervention programs within public school settings.

**EDUC 639 - Theory and Process of Counselor Supervision**
*(3) Prerequisite(s):* Admission to the Doctoral program.
This course will cover theories and techniques of counselor supervision. It will include major theories of counselor development, the counselor-supervisor relationship, major approaches to supervision, supervision methods, and supervision ethics. The course is open to doctoral students and is a prerequisite to the Doctoral Internship.

**EDUC 644 - Developmental Psychopathology**
*(3)*
This course is designed to familiarize students with the psychological disorders of children and adolescents that are most frequently encountered by school psychologists. The content of the course will focus on developmental issues, defining characteristics, associated features, etiologic factors, assessment and diagnostic classification, and evidence-based interventions for effective treatment.

**EDUC 645 - The Counselor and Psychopathology**
*(3)*
This course covers the types of psychopathology most often encountered in counseling settings. Students are introduced to the diagnostic categories of the most current Diagnostic and Statistical Manual with particular emphasis placed on making appropriate diagnoses and the use of these diagnoses for treatment planning and intervention strategies.

**EDUC 646 - Internship in Family Counseling**
*(3) Graded Pass/Fail. Prerequisite(s):* Permission of instructor.
This internship provides advanced training, supervision and skill development in marriage and family counseling; family, counselor, and school collaboration; and family counseling clinic administration. Students provide family counseling services to client families referred to the New Horizons Family Counseling Center by participating public school systems, and have an opportunity to learn from each other and from licensed clinical faculty and staff during weekly supervision.

**EDUC 647 - Internship in Counselor Supervision**
*(3) Graded pass/fail Prerequisite(s):* Admission to Doctoral Program and EDUC 639
This internship serves as the clinical component of the four-semester sequence in the theory and practice of counselor supervision that begins with EDUC 639. The course provides advanced training and skill development in supervision, and requires each intern to apply supervision theory and skills in actual supervisory processes with supervisees from the Masters Practicum in Counseling - EDUC C42.

**EDUC 659 - Internship in School Psychology**
*(6) Graded Pass/Fail. Prerequisite(s):* Completion of all other coursework in the Ed.S. Program in School Psychology.
The culminating evaluation experience in the Ed.S. Program in School Psychology is the internship which must occur on a full-time basis over a period of one year or on a half-time basis over a period of 2 consecutive academic years in an accredited school. Evaluation of performance is conducted cooperatively between the College and the appropriate school personnel. Students typically receive a stipend during the internship year.

**EDUC 662 - Prevention and Intervention in Early Childhood Education**
*Occasionally. (3) Staff. Prerequisite(s):* Enrollment in School Psychology Program or permission from the instructor.
This graduate seminar overviews current issues in early childhood education. Course content focuses on strategies for preventing school failure through early literacy support, family-school partnerships, and teacher professional development in PK-3 educational settings. Students interact weekly with young children and their teachers and implement assessments and interventions in PK-1 classrooms.

**EDUC 663 - Quantitative Research Design & Methods I**
*(3) Prerequisite(s):* EDUC F65
This intermediate-level research design and methods course focuses on descriptive, causal comparative, and comparative positivistic research. Students are introduced to both research design and statistical analyses that are appropriate to and comparative research questions.

**EDUC 664 - Qualitative Research Methods**
*(3) Prerequisite(s):* EDUC 663
An intermediate research course that introduces qualitative methods of research for the study of educational issues. Readings and class discussions will emphasize the theoretical underpinnings of these

methods, while assignments focus on the practical experience with these methods in the field of education. This course is offered in the form of a doctoral level seminar and as such requires considerable reading, writing, critiquing, and reflection.

**EDUC 665 - Quantitative Research Design & Methods II**

*(3) Prerequisite(s):* EDUC 663

This intermediate-level research design and methods course focuses on the collection and analysis of data from correlational studies. Students are introduced to both positivistic research design and statistical analyses that are appropraite for addressing questions of relationship.

**EDUC 669 - Neuropsychological Bases of Behavior**

*(3)*

This course provides the advanced level graduate student with an overview of research emanating from such representative disciplines of the neurosciences as anatomy, physiology, psychology, chemistry, and medicine.

**EDUC 675 - Theories & Strategies for Counseling School-Aged Children**

*(3)*

The focus of this course is on the understanding and application of contemporary theories of counseling for school-aged children and adolescents. Theories will be studied with respect to key concepts, the therapeutic process and goals, and specific techniques. Students will apply their skills in practice sessions with school-aged children. The physiological, cognitive, social, and emotional development of children as well as their environment (including the school) will be emphasized so that interventions are consistent with the children's needs.

**EDUC 684 - Advanced Multicultural Social Justice Theory and Practice**

*(3) Prerequisite(s):* EDUC 624

A course which build on the introductory elements of multiculturalism and social justice as presented in EDUC 624. This course covers the following topics: professional issues that require social justice analysis and advocacy, social justice theorectical frameworks, ethical and legal issues in social justice, systemic barriers and challenges, and culturally responsive leadership.

**EDUC 691 - Independent Study in Education: Advanced**

*(Var.) Prerequisite(s):* Permission of Instructor.

**EDUC 692 - Problems in Education: Advanced**

*(Var.) Prerequisite(s):* Permission of Instructor.

**EDUC 700 - Quantitative Research Design & Methods III**

*(3) Prerequisite(s):* EDUC 663, EDUC 665

This advanced-level research design and methods course focuses on extending understandings of the collection and analysis of data from positivistic studies. The course builds on the topcis that are expolred in EDUC 663 and EDUC 665.

**EDUC 703 - Research in Counselor Education**

*(3)*

The purpose of this course is preparation for the dissertation through the exploration of current literature in counselor education. This seminar enables students to confront problems in conducting original

investigations in counselor education and to become familiar with resources for doing research. The primary activity will be the construction of the dissertation proposal prospectus.

**EDUC 704 - Advanced Qualitative Research Design and Methods**

*(3) Prerequisite(s):* EDUC 664

Advanced-level methodological course that helps students understand--through comparison and contrast--a broad range of nonpositivistic (a.k.a. "qualitative") research approaches. Students learn to accurately select, combine, and sequence methods to create ontologically and epistemologically robust, consistent, and coherent research designs. The course requires considerable reading, writing, reflection, critiquing, and revision.

**EDUC 762 - Doctoral Seminar in Counseling**

*(3)*

The course will review current theory and program application within the cognitive/constructivist developmental paradigm to offer an organizing framework for the analysis and development of counselor education, supervision, clinical practice and research, and application to the field through the development of a research project on a current topic.

**EDUC 763 - Doctoral Practicum**

*(3) Graded Pass/Fail. Prerequisite(s):* Admission to the Doctoral Counselor Education Program.

The Doctoral Practicum provides advanced counseling practice in a supervised setting to PhD students on Counselor Education and Supervision. Students complete 100 hours of hours of counseling practice in a field setting under weekly supervision by counseling faculty and qualified field placement site supervisors.

**EDUC 764 - Seminar in Counselor Education**

*(3)*

This course is an advanced seminar for doctoral students in counselor education. It covers theory, practice, and research in counselor education. Specific topics covered include: instructional theory and methods relevant to counselor education, ethical and legal issues in counselor education and supervision; publishing, grant writing, faculty service, program accreditation, life in academia, the academic job search, program evaluation, and implications of socio-cultural, demographic, and lifestyle diversity for counselor education and supervision.

**EDUC 765 - Doctoral Internship**

*(3) Graded Pass/Fail.*

The doctoral internship provides supervised experiences in clinical settings, teaching, supervision and service to the profession and public. Each student develops the internship program according to areas identified by the student and advisor that are necessary to comprehensive preparation as a counselor educator & supervisor and that are relevant to the specific career goals of each student. The Doctoral Internship requires 300 hours of work experience and weekly group and individual meetings with the faculty supervisor. The internship further offers psychosocial support, role modeling, and professional development in counselor education and supervision.

**EDUC 799 - Continuous Enrollment**

*(1-6) Graded Pass/Fail.*

This course allows for maintenance of continuous enrollment for students not taking academic credits or dissertation credits, who have not completed their program of study.

### EDUC 800 - Dissertation

*(1-9) Dissertation chairperson. Graded Pass/Fail. Prerequisite(s):* Permission of the instructor.

## School of Marine Science Courses (MSCI)

### MSCI 501A - Fundamentals of Marine Science, Physical Oceanography

*Spring (2) Gong*

This course provides an introduction to the various types and scales of motion in the ocean, the global heat budget, major water masses, and processes controlling distributions of temperature and salinity. Discussions on phenomena associated with water motion will include global circulation, wind-driven circulation in ocean basins, tides, coastal upwelling, storm surge, waves, turbulence, and circulation in estuaries. Underlying dynamics governing water motion will be presented, elucidating the role of the rotation of the earth. The El Nino/La Nina oscillation will be examined as a key example of large-scale ocean-atmosphere interactions.

### MSCI 501B - Fundamentals of Marine Science, Chemical Oceanography

*Fall (2) Smith, J.*

This course presents an overview of the chemistry of estuaries and the ocean including chemical processes that occur in marine sediments and at the air/sea interface. Discussion topics will include the chemical properties of seawater, chemical equilibrium and kinetics, the seawater carbonate system and ocean acidification, the global and oceanic carbon and nitrogen cycles, ion speciation, trace metals, and nutrients, sediment diagenesis, and fundamentals of radioisotope and stable isotope biogeochemistry. Interdisciplinary applications are emphasized.

### MSCI 501C - Fundamentals of Marine Geology

*Fall, odd years (2) Hein Note: SMS graduate students with a strong undergraduate geology background can take MSCI 521 instead of MSCI 501C to fulfill a SMS core fundamentals requirement. Contact the instructor for more details.*

This course provides an introduction to the major topics of marine geology without expecting the student to have a background in geology. The course addresses the age and internal structure of the earth, the processes of plate tectonics including the formation of oceanic crust, seamounts, hydrothermal vents, the characteristics and classification of sediments and the distribution of sediments in the deep sea. Also addressed are the interrelationships among and importance of paleoceanography, climate change, and sea-level change, and the processes and characteristics of various marine, estuarine, and coastal sedimentary environments. The course includes discussion of various types of field equipment and logistics and of some economic and societal implications.

### MSCI 501D - Fundamentals of Marine Science, Biological Oceanography

*Fall (2) Steinberg*

This course examines the biology and ecology of marine organisms and how they interact with their environment. Topics include the organisms and their behavior, distribution, and underlying physiology; effects of biology on elemental and nutrient cycles and visa versa; and ecosystem structure and ecological interactions. An interdisciplinary approach will be taken, as biology both depends on and influences ocean chemistry, physics, geology, and climate. The course will emphasize open ocean, pelagic systems, but will include many examples from coastal and estuarine systems, as well as shallow and deep-sea benthic ecosystems.

### MSCI 501E - Fundamentals of Environmental Chemistry, Toxicology and Pathobiology

*Fall (2) Unger, Wargo*

This course emphasizes ongoing and emerging environmental concerns in the Chesapeake Bay and world ocean. Lectures will address basic concepts and mechanisms of contaminant chemistry and toxicology,

infectious and noninfectious diseases in aquatic organisms. Case histories will be used to illustrate sources, fate and effects of anthropogenic chemical contaminants, and the important role of environmental change on disease in marine and estuarine ecosystems.

**MSCI 501F - Fundamentals of Marine Fisheries Science**

*Spring (2) Graves, Scheld*

This lecture course will introduce the principles and techniques of fishery science. Lecture topics will include the theory and impacts of fishing, description and status of international, North American and regional fisheries, fisheries oceanography, recruitment processes, single-species and ecosystem-based approaches to stock assessment, and fisheries management, and the goals and problems of sustaining an open-access common pool resource.

**MSCI 503 - Interdisciplinary Research in Estuarine and Coastal Systems**

*Spring (2) Brush*

This is an interdisciplinary, field-based laboratory course applying concepts from MSCI 501 to a semester-long study of the estuarine and coastal environments of the lower Chesapeake Bay and Virginia's Eastern Shore. The course is designed to expose students to today's typical interdisciplinary research process from project conception through presentation of results. Students will organize into crossdisciplinary groups around a particular study site and research topic, and develop and implement a scientifically sound, hypothesis-driven research plan through a series of group cruises and instrument deployments. Particular emphasis will be placed on spatial and temporal patterns of biotic and abiotic processes and their interactions, along with sample design, collection, analysis, and interpretation of data. Students will also be exposed to utilizing historical and ongoing databases as well as synthesizing data from each group member to create an interdisciplinary story. The course culminates with oral presentations and a group poster.

**MSCI 504 - Fundamentals of Statistical Methods and Data Analysis**

*Fall (4) Chiu*

In this course, students are introduced to the fundamental statistical methods commonly used for analysis of biological and ecological data. Topics include describing data, probability distributions, statistical inference, hypothesis testing, elementary experimental design, analysis of variance, and regression and correlation. The introductory aspects of categorical data analysis and multivariate techniques will also be covered. Course content will be integrated with a weekly laboratory session using the statistical computing language R.

**MSCI 506 - Scientific Communication Skills**

*Spring, even years (2) Hilton, Steinberg. Graded Pass/Fail*

The important elements of oral and written presentation skills for communicating scientific research to diverse audiences will be reviewed in this course. The course addresses topics such as best practices for writing, submitting, and revising scientific papers, proposals, and reports, and developing effective figures and other illustrations. Oral and written presentation skills are emphasized through written exercises and class presentations, with peer review. Other topics include development of effective poster presentations and application materials, such as CVs, cover letters, and research and teaching statements.

**MSCI 507 - Responsible Conduct of Research**

*Fall (1) Schaffner*

Students will discuss responsible research and scholarly practices and develop an ability to recognize ethical choices for informed decisions based on key principles of research integrity. Class attendance and completion of VIMS CITI RCR modules are required. Grading is pass/fail.

**MSCI 508 - College Science Teaching**

*Spring, odd years (1) MacDonald, H.*

Course includes discussion of issues in science teaching and learning, course design, lesson design, teaching and assessment strategies, and teaching statements. Focusing on a course of their own, students develop an assignment, lesson outline, and syllabus. Course is valuable for students who are interested in an academic career and/or other positions that involve teaching and/or outreach. Grading is pass/fail.

**MSCI 515A - Biological Sciences Seminar**

*Spring (1) Staff*

The departmental seminar course offers a multidisciplinary review of significant areas of marine science. Guest speakers will present a variety of views, and course participants will organize and present talks related to the seminar theme. Grading is pass/fail. *Students may repeat seminar registration as required by their respective departments; however, only two (2) credits will be applicable to an SMS degree.*

**MSCI 515B - Aquatic Health Sciences Seminar**

*Fall and Spring (1) Staff*

The departmental seminar course offers a multidisciplinary review of significant areas of marine science. Guest speakers will present a variety of views, and course participants will organize and present talks related to the seminar theme. Grading is pass/fail. *Students may repeat seminar registration as required by their respective departments; however, only two (2) credits will be applicable to an SMS degree.*

**MSCI 515C - Fisheries Science Seminar**

*Spring (1) Staff*

The departmental seminar course offers a multidisciplinary review of significant areas of marine science. Guest speakers will present a variety of views, and course participants will organize and present talks related to the seminar theme. Grading is pass/fail. *Students may repeat seminar registration as required by their respective departments; however, only two (2) credits will be applicable to an SMS degree.*

**MSCI 515D - Physical Sciences Seminar**

*Fall and Spring (1) Staff*

The departmental seminar course offers a multidisciplinary review of significant areas of marine science. Guest speakers will present a variety of views, and course participants will organize and present talks related to the seminar theme. Grading is pass/fail. *Students may repeat seminar registration as required by their respective departments; however, only two (2) credits will be applicable to an SMS degree.*

**MSCI 521 - Advanced Marine Geology**

*Fall, even years (3) Hein Prerequisite(s):* An undergraduate background in geology. *Note: SMS graduate students with a geology background can take this course instead of MSCI 501C to fulfill a SMS core fundamentals requirement. This course will cover similar topics as MSCI 501C but be taught at a higher, more advanced level.*

**Long Title: Marine Geology: Environments, Processes, and Records.** This course is designed as an introduction to the geologic processes which have shaped the world's oceans and their margins. It is specifically targeted to advanced undergraduates and junior graduate students with a background in geological sciences. It will focus on three key study areas (the Bay of Bengal, the US Atlantic Coast, and the Arctic Ocean), and explore the geology and morphology of each, the key processes responsible for their formation and evolution over timescales ranging from decades to hundreds of millions of years, and the records of past changes in sea level, climate, and physical oceanography contained within their sedimentary deposits.

**MSCI 529 - Fish Physiology**

*Spring, odd years (3) Brill*

This course is intended for students interested in incorporating physiological principles and techniques

into projects addressing questions in ecology, fishery biology and environmental assessment. It will emphasize basic concepts to make physiological jargon and the published literature understandable.

**MSCI 530 - Microbial Processes in a Changing Coastal Environment**

*Spring, odd years (2) Anderson, Reece*

The course will address current topics and societal concerns in coastal and estuarine systems including microbial responses to eutrophication, harmful algal blooms, nutrient enrichment, and roles of bivalve-dominated systems, marshes, seagrasses, groundwater, and photic sediments on microbial nutrient cycling. Cross-listed with BIOL 404 and MSCI 404

**MSCI 548 - Special Topics in Marine Science**

*Fall, Spring and Summer (1-3) Staff*

This is the avenue through which subjects not covered in other formal courses are offered. These courses are offered at an introductory or lower level (i.e., below MSCI 550), with content and workload commensurate with other lower level MSCI courses. These courses are offered on an occasional basis as demand warrants. Subjects will be announced prior to registration and after approval by the EPC.

**MSCI 549 - Communicating Ocean Science: Science Education Methods**

*As Required (1) Hopper-Brill, Lawrence Note: Instructor permission required.*

Effective science teaching methods for communicating ocean sciences in classroom or informal education settings. Prepares marine science graduate students for interpreting their research to lay audiences via lessons, labs, or field activities.

**MSCI 550 - Rivers: Processes and Problems**

*Spring, even years (3) Hein, Staff*

Rivers form the main link between land and the ocean, discharging more than 35 thousand km3 of water and more than 20 billion tons of suspended and dissolved solids annually to the global ocean. Three central themes are stressed: 1) How do rivers work: the hydrologic cycle and water budget, basin character, physical and chemical erosion; 2) Temporal and spatial variations, ranging from seasonal to millennial, with particular emphasis on catastrophic events; 3) Human interactions: land degradation, river management, future impact of climatic change and anthropogenic activities. Includes a one-week field trip.

**MSCI 553 - Introduction to Benthic Boundary Layers and Sediment Transport**

*Fall, odd years (3) Harris*

This course addresses the physical and geological aspects of coastal and estuarine benthic boundary layers, their dynamic forcing and the associated suspension and transport of sediments. Principles of waves, tides and currents are introduced with emphasis on shall-water processes. Boundary layer structure and shear stress on the seabed, wave boundary layers and turbulence are considered in relation to the coastal environment. Forces on sediment particles, initiation of sediment movement and principles of sediment transport are treated at an intermediate level.

**MSCI 554 - Principles of Numerical Computing**

*Spring (3) Harris, Wang*

This course provides students in the marine sciences with the tools needed to pursue study and research using numerical methods. It will enable them to write programs to solve fairly complex problems, to explore and understand the current literature in which numerical methods are used. Topics include principles of floating-point computation, interpolation, linear and non-linear systems of equations, numerical integration, ordinary and partial differential equations, and optimization. Emphasis is placed on finite difference solutions to conservation of mass and momentum equations. The course consists of three

lecture hours per week, assigned problems using MATLAB, and a term project in a topic chosen by the student.

**MSCI 555 - Marine Resource Economics**
*Fall, odd years (3) Scheld*
This course is designed to introduce students to the economic concepts, tools, and arguments that shape policy and management of living marine resources. Lecture will be supplemented with problem sets and a final project which synthesizes course concepts. Cross-listed with PUBP 614

**MSCI 559 - Parasitology**
*Spring (3) Shields*
Recommended: Invertebrate Zoology or comparable course. This course covers the biology and ecology of protozoan, helminth and crustacean parasites. Focus is on parasites of medical and veterinary importance. Emphasis is placed on life cycles, pathology, control methods and ecological impacts of parasitic infections. Three lecture and three laboratory hours. Cross-listed with (Bio 404 and BIOL 504)

**MSCI 561 - Statistical & Graphical Analyses in R**
*Spring (3) Hoenig*
Use of R to manipulate and graph data and perform statistical analyses. Students will write functions, use debugging facilities, and perform advanced graphical and statistical analyses including bootstrapping, nonlinear regression, and generalized linear mode.

**MSCI 562 - Environmental Pollution**
*Fall (2-3) Hale*
This course will introduce students to processes impacting aquatic environments. Emphasis will be on pollution by man-made chemicals and metals. Additional topics include consequences of excessive nutrients, habitat modification and introduction of exotic or elimination of native species. Students have the option to register for 2 credit hours (lecture only) or 3 credit hours (lecture with an in-class student presentation).

**MSCI 563 - Environmental Chemistry**
*Spring (3) Unger*
The fundamental physical, chemical and biological processes controlling the fate of major classes of aquatic contaminants are covered in this course. Topics such as photolysis, biodegradation, sorption and redox chemistry are examined to elucidate the mechanisms controlling chemical degradation and transport. Case studies are used to show how these basic research principals can be integrated and applied to solve real word environmental problems.

**MSCI 565 - Principles of Pathobiology**
*Spring, even years (3) Vogelbein, Carnegie, Wargo*
This course focuses on the molecular and cellular mechanisms of pathogenesis in important emerging diseases in the medical, veterinary, and aquacultural fields. Students will learn how current molecular and cellular techniques are being applied to the resolution of a variety of infectious and non-infectious diseases. Mammalian models provide a foundation for application to the diseases of fish and shellfish.

**MSCI 568 - Crustacean Health Issues**
*As required (1) Shields*
Crustaceans support major commercial fisheries and aquaculture production. We will explore current topics in crustacean health such as emerging diseases and their impact on fisheries, disease control and prevention, the influence of environmental factors that contribute to health issues, basic aspects of

crustacean biology that are affected by pathogens, aspects of animal husbandry and aquaculture, and advances in understanding crustacean immunology. Emphasis will be placed on commercially important crustaceans and their pathogens and diseases, but comparisons will be made among different systems. Students will present papers in topical areas, develop reviews of subject areas, and participate in class discussions. Different topics will be covered each semester. *A student may repeat the course up to four times, provided the instructor determines there is no duplication of subject matter. Up to (4) times*

**MSCI 571 - Marine Ecology**

*Spring (3) Johnson*

The course covers the fundamental processes underlying structure and functioning of marine ecosystems, both pelagic and benthic, and application of those principles to understanding responses of marine ecosystems to anthropogenic and natural global change. Lectures, readings and discussion will emphasize physical processes supporting primary production, planktonic and benthic dynamics, distribution and functional importance of marine biodiversity, biotic interactions structuring communities, and food web structure. The course concludes with a survey of the major marine ecosystem types. A central part of the course involves design, writing, reviewing, and panel discussion of student research proposals.

**MSCI 575 - Aquatic Microbial Ecology**

*Fall, odd years (3) Anderson, Song Note: Organic chemistry or biochemistry recommended.*

This course provides an introduction to the role that microorganisms play in the biogeochemical cycling and production of dissolved and particulate inorganic and organic matter in freshwater and marine ecosystems. The approach will be ecological, relating environmental physiochemical properties to regulation of microbial processes, distributions, and biodiversity. Topics will include state of the art methods for detecting distributions, biomass, and activities of microorganisms in the natural environment, the energetics regulating microbial processes, microbial biochemical pathways, biodegradation, microbial interactions, and the role that microorganisms play in the food webs of various ecosystems. Although emphasis will be placed on marine systems, processes in lacustrine, riverine, and groundwater ecosystems will also be discussed. Readings will draw heavily on the primary literature.

**MSCI 583 - Molecular Genetic Data Analysis, Bioinformatics**

*Spring, odd years (3) Reece, McDowell*

This is a lecture and computer-based laboratory course covering the principles and practice of analyzing and interpreting population genetic, phylogenetic and genetic mapping datasets. Molecular data sets including DNA sequences, genotypic profiles and genomic data will be exported and processed for analysis by the appropriate suite of computer software programs. Software to be utilized includes DNA sequence analysis, genotyping, population genetic, sequence alignment and phylogenetic programs, as well as standard pipelines for analysis of next generation sequencing data. Phylogenetic programs will include those based on genetic distance, maximum parsimony, maximum likelihood and Bayesian analyses. Population genetics programs include those such as GenePop to perform standard population genetic statistical analyses, Arlequin for doing AMOVAs, and STRUCTURE for doing assignment testing.

**MSCI 599 - Thesis**

*Fall, Spring and Summer (1-12) Major or Co-Major Advisor(s)*

This is the avenue for original research in biological, chemical, geological and physical oceanography, environmental science, marine fisheries science and marine resource management. The master's project is chosen in consultation with the student's major professor and the Associate Dean of Academic Studies.

**MSCI 610 - Effects of Global Change on Modern Marine Systems**

*Fall, odd years (2-3) Canuel, Staff*

The course will explore the recent literature highlighting effects of climate and global change on various

aspects of marine systems including (but not limited to) biogeochemical cycling, ecosystem structure and function, alterations in ocean chemistry, and physical processes such as polar and glacial ice melting, ocean circulation and sea level rise. The course is designed as a 2-credit course. Students will be evaluated primarily on the basis of the quality and organization of the class discussion they lead (including a short introductory background presentation), as well as participation in all other class discussions. In addition, a short (5 pages) critical writing assignment assessing the effectiveness of one or more recently published papers on impacts of global change in marine systems will be required. A 3-credit option may be made available to students who wish to undertake more detailed independent study of a particular topic in the form of additional readings and a research term paper.

**MSCI 611 - Estuarine Hydrodynamics I**

*Fall (3) Wang*

This course examines classification of estuaries, time scales of motions, tidal dynamics in estuaries, non-tidal circulation, mechanism of arrested salt wedge, gravitational circulation, diffusion induced circulation and turbulence in stably stratified flows.

**MSCI 615 - Hydrodynamic Modeling of Estuarine and Coastal Waters**

*Fall, even years as required. (3) Wang.*

This course will survey numerical methods for the solution of partial differential equations describing the estuarine and coastal water motion and transport. Topics include stability, accuracy, consistency and convergence analysis of numerical scheme, formulation of primitive and scalar transport equations, and the pre- and post-processing for numerical computational models. The course will involve classroom lectures, seminar readings, and application of models for operational environmental prediction.

**MSCI 617 - Estuarine Water Quality Models**

*Spring, even years as required (3) Wang. Prerequisite(s):* MSCI 611

This course examines the principles of mass balance, physical transport processes, diffusion and dispersion in estuarine environments. Water quality processes, representation of biochemical transformations, dissolved oxygen modeling and survey of available models are other topics of discussion.

**MSCI 620A - Coastal Environments I**

*Fall, every three years (1) Kuehl. Note: To be offered again in 2021.*

Field experience examining modern and ancient coastal environments. Course rotates annually among three field environments. A 4-5 day field trip during the second half of the semester will be conducted to one of the three field areas each year.

**Barrier Islands and Beaches from Virginia to Georgia:** This offering will examine coastal environments along the East Coast from Virginia to Georgia. A 4-day field trip will highlight barrier-island and beach morphologies encountered along this stretch of the coast, and will also examine dunes, tidal flats, marshes, inlets and deltas. This stretch of the East Coast is a natural laboratory for investigating the relative roles of physical and biological conditions in creating a remarkable gradient in coastal geomorphology, and also provides many examples of human modification to the natural system.

**MSCI 620B - Coastal Environments II**

*Fall, every three years (1) Kuehl. Note: To be offered in 2019.*

Field experience examining modern and ancient coastal environments. Course rotates annually among three field environments. A 4-5 day field trip during the second half of the semester will be conducted to one of the three field areas each year.

**Mississippi Delta:** This course will examine the intersection of humans and natural processes at the mouth of the largest river system in North American, the Mississippi Delta. Students will review the classic and

modern literature on deltaic processes and wetlands issues of coastal Louisiana. A 4-5 day field trip to the delta will examine the range of extant environments from the New River control structure, through the swamps and wetlands to the nascent Atchafalaya delta, the future major lobe of the Mississippi River system. Class and field discussions will detail the geological and biological processes that conspire to create one of the world's great delta systems, and explore the results of human modifications in this sensitive and highly dynamic setting.

### MSCI 620C - Coastal Environments III

*Fall, every three years (1) Kuehl. Note: To be offered again in 2020.*
Field experience examining modern and ancient coastal environments. Course rotates annually among three field environments. A 4-5 day field trip during the second half of the semester will be conducted to one of the three field areas each year.
**Paleozoic Coastal Environments - Kentucky and West Virginia:** This course will examine Paleozoic fluvial, deltaic and coastal sedimentary rocks. A 4-day field experience will explore ancient examples of coastal/deltaic environments formed in epicontinental seas of the Paleozoic that are accessible through road and river cuts in West Virginia and Kentucky. Easy access and extensive outcrop exposures provide a remarkable 3D perspective of preserved coastal sedimentary sequences.

### MSCI 622 - Coastal Evolution

*Spring, odd years (3) Hein Prerequisite(s):* MSCI 501C or MSCI 521 *Prereq/Corequisite(s):* MSCI 501C or MSCI 521
**Long Title: Holocene Coastal Geomorphology and Evolution.** This course will review the drivers of, and geomorphic responses to, change along open-ocean coastal sedimentary environments across a range of climatic zones and from the event scale to thousands of years.

### MSCI 626 - Global Ocean Change Biology

*Fall, odd years (2) Rivest*
This course will provide (1) a scientific foundation of physical processes that shape climate (e.g. solar variability, greenhouse gases, atmospheric and oceanic circulation, and volcanic aerosols) and (2) a scientific foundation of biological consequences of global environmental change. Evidence for past and present global environmental change will be discussed, including sea level change, variation in freshwater inputs, and shifts in temperature and acidity. Biological and ecological processes that result from changing ocean conditions will include range shifts, phenological shifts, acclimatization, and local adaptation.

### MSCI 627 - Marine Organic Geochemistry

*Spring, odd years (3) Canuel Prerequisite(s):* Organic Chemistry
This course focuses on the characterization of organic carbon, nitrogen, phosphorus and sulfur in the marine environment. Modern methods of organic analysis that enhance our understanding of how organic materials cycle through the oceans will be discussed. Topics include the role of organic matter in the C, N, S and P cycles; chemical composition of marine organic matter; biogeochemistry; diagenetic transformations of organic materials; organic matter decomposition and preservation; and petroleum geochemistry.

### MSCI 631 - Wetland Geomorphology and Ecology

*Spring (3) Kirwan*
This course focuses on the geomorphic and biological processes influencing coastal wetlands. The course examines interactions between sediment transport and plant growth in barrier islands, coastal lagoons, and estuarine headwater and tidal marsh environments. Through a series of lectures, field trips, assigned readings and an independent project, students will examine geological and biological processes and learn

how both natural and anthropogenic factors shape these coastal ecosystems. One Saturday field trip to the Eastern Shore Laboratory is required.

**MSCI 644 - Aquatic Epidemiology**

*Spring, odd years (3) Wargo. Prerequisite(s):* MSCI 504 or MSCI 554
This course will cover graduate level topics in Epidemiology. Students will gain the ability to critically assess epidemiological literature, design epidemiological studies, and analyze epidemiological data. Where possible, content will focus on aquatic environments and organisms, including human aquatic diseases. A preliminary working knowledge of basic statistics is required. Previous competency in R computing language is expected.

**MSCI 649 - Ecosystem Modeling**

*Fall, even years (3) Brush*
This course provides an introduction to quantitative modeling in marine science, with an emphasis on the process of constructing mechanistic models of biological, ecological, and biogeochemical processes. General topics include determination of modeling objectives and assumptions, model formulation and parameter estimation, determination of model accuracy through calibration, validation, and sensitivity analysis, and use of models to address scientific questions through simulation analysis. Types of models covered include compartmental ecosystem models, age/size-structured population models, and food web network analysis, with consideration of deterministic, stochastic, and spatially explicit approaches. Lectures are supplemented with readings from the primary literature and students receive hands-on experience building and using models through in-class lab exercises.

**MSCI 650 - Estuarine Ecology**

*Fall, odd years (3) Brush. Prerequisite(s):* MSCI 503
This survey course will expose students to the key aspects of estuarine ecosystems. Topics covered will include both the abiotic settings of estuaries, including geological, physical, and chemical characteristics, and the biotic components and their interactions, including nutrient dynamics, biogeochemistry, microbial processes, primary production, ecosystem metabolism, secondary production, and food web dynamics. The course will end with overviews of current and emerging issues in estuarine science, including eutrophication and climate change. Bi-weekly class meetings will consist of interactive discussions led by the instructors based on readings from key estuarine ecology texts and the primary literature, supplemented with student-led discussions of primary literature and "virtual field trips" to a variety of well-studied estuaries. Students will work on a semester-long project to develop course materials into an estuary-focused wiki on the William & Mary wiki site. Each student will lead the development of materials for a select number of topics, and be responsible for contributing materials and editing content for all topics. Students will also lead field trips to local systems to illustrate class topics and synthesize existing datasets to conduct a comparative analysis of estuarine ecosystems.

**MSCI 658 - Larval Ecology**

*Spring, even years (3) Mann*
The course is based on a broad discussion of the following topics within the marine invertebrates: the concept of the larval form, spawning and developmental patterns, limitations on the fertilization process and embryology, the Reynolds number environment at typical larval size, feeding and nutrition in the larval size range, larval size and parental investment, larval dispersal and supply in maintaining community structure, roles of physical versus biological processes in inducing metamorphosis, early post-metamorphic survival, and larval ecology in extreme environments.

**MSCI 663 - Deep-Sea Biology**

*Spring, odd years (2) Vecchione*
Students will receive an introduction to the animals of the deep sea and characteristics of deep-sea and polar ecosystems. Lectures will survey the major metazoan groups found in deep-sea habitats, as well as physical characteristics of the environments and adaptations to life in these cold, dark, hyperbaric regions. An opportunity to participate in a deep-sea trawling cruise may be coordinated with the course.

**MSCI 664 - Marine Conservation Biology**
*Spring, even years (3) Lipcius*
This course focuses on the application of multidisciplinary scientific principles to the protection, enhancement and restoration of marine biodiversity (genetic, species, community and ecosystem). Ecological emphasis will be on the conservation of biodiversity threatened by habitat degradation and loss, overexploitation, invasive species, and global change. Social, legal, economic and political influences will be discussed. Also included will be practical application through case studies and training in population viability analysis. (Lecture and laboratory)

**MSCI 666 - Ichthyology**
*Fall, odd years (4) Hilton*
Fishes form a large, diverse group of vertebrates that are culturally, economically, and scientifically important, and they offer much for the study of evolutionary biology. This course provides an intensive overview of all aspects of the evolution of fishes, with an emphasis on their morphology and systematic relationships. The lectures cover the diversity and evolutionary history of fossil and living fishes, and discuss the evidence for different hypotheses of their phylogenetic relationships; other topics include the biogeography, functional anatomy, physiology, and behavior of fishes. The mandatory lab section emphasizes dissection-based anatomical study and the global diversity of fishes, and includes some field sampling.

**MSCI 667 - Experimental and Quantitative Ecology**
*Spring, odd years (3) Lipcius*
The course addresses the design, conduct, analysis and interpretation of field and laboratory experiments in ecology. The lectures, discussion and supervised field and laboratory projects are designed to illustrate the diversity of experimental and quantitative approaches in use by ecologists. Topics include the scientific method, experimental design, the use and abuse of statistical techniques, modeling and manuscript preparation, with emphasis on topical ecological issues such as those dealing with predatory-prey interactions, recruitment phenomena, environmental science (e.g., dose-response assays) and metapopulation dynamics. (Lecture and laboratory)

**MSCI 668 - Malacology**
*Fall, odd years (3) Mann*
The course begins with a discussion of the ancestral mollusc form and the fossil record, proceeds through examination of the structure and function of the molluscan shell. It concludes with reviews of molluscan taxonomy, reproductive biology, physiology, ecology, and feeding mechanisms.

**MSCI 669 - Linear and Generalized Linear Models in Ecology**
*Fall (3) Fabrizio Prerequisite(s):* Consent of instructor, and ability to program in SAS or R
This course emphasizes the design and analysis of field data (e.g., retrospective studies, experimental manipulations in the field), rather than design and analysis of controlled laboratory experiments. Students will gain a working knowledge of linear and generalized linear models useful in the analysis of ecological data. Both theoretical development and application of statistical methods will be presented.

**MSCI 670 - Stock Assessment Methods**

*Spring, even years (3) Hoenig*
This course will survey methods for assessing the status of exploited populations given various combinations of data types. Emphasis will be placed on deriving statistical methods using maximum likelihood and other analytical techniques, and on computing estimates for a variety of datasets. Population models will be used to integrate information on stock status in order to determine appropriate management measures. Additional topics include analysis of uncertainty in the assessment of results and implications of uncertainty for management, analysis of research surveys, commercial catch, fishing effort, and tagging data.

**MSCI 671 - Fisheries Population Dynamics**
*Fall, starting in 2020 (3) Latour*
This course provides an introduction to the fundamental processes governing fish population dynamics, with an emphasis on the theory and practical application of models used to characterize the factors influencing population abundance. Topics include the theory of mortality, growth, stock-recruitment (compensation, depensation), surplus production, VPA, statistical catch-at-age, tagging, and the introductory aspects of multispecies and fisheries ecosystem models. Lectures are supplemented with readings from the primary literature and students receive hands-on experience with nonlinear parameter estimation through computer laboratory sessions using the statistical software package R.

**MSCI 672 - Ecology of Fishes**
*Fall, even years (3) Weng*
This course will provide students with an understanding of fish ecology as related to vertebrate evolution and diversity, systematics, feeding and reproductive biology, early life history ecology, and fish community structure and biotic interactions.

**MSCI 673A - Principles of Molecular Biology**
*Spring, even years (2) Reece, McDowell, Song Corequisite(s):* MSCI 673B or MSCI 673C
This is a lecture, laboratory, and computer laboratory course covering the principles and practice of analyzing and interpreting genomic, metagenomic, population genetic and phylogenetic datasets. Overall, the course will cover the evolutionary processes responsible for the intra- and interspecific genetic relationships among marine organisms, with an emphasis on the application of current molecular methodologies. The course is modular with the first module (MSCI 673A, 2 credits) covering basic molecular genetic principles and molecular biology techniques during the first 6 weeks of the semester. For the second half of the semester students will choose one of two modules (MSCI 673B or MSCI 673C, 2 credits) focusing on molecular genetic studies and bioinformatic analyses of either prokaryotic or eukaryotic organisms.

**MSCI 673B - Metagenomics & Bioinformatics (Prokaryotes)**
*Spring, even years (2) Song Corequisite(s):* MSCI 673A
Refer to MSCI 673A course description.

**MSCI 673C - Principles of Molecular & Phylo-genetics (Eukaryotes)**
*Spring, even years (2) McDowell, Reece Corequisite(s):* MSCI 673A
Refer to MSCI 673A course description.

**MSCI 675 - Molecular Microbial Techniques**
*Spring, odd years (1-2) Song*
This class will review primary literatures reporting various molecular biological techniques used in microbiome studies. Topics include PCR, FISH, T-RFLP, Real-time PCR, Stable Isotope Probing and Raman microspectroscopy and NanoSIMs.

**MSCI 685 - Coastal Resource Management Clinic**

*Fall (1-3) Hershner, Staff. Note: To be offered in 2019 only.*

This course will involve a survey of current issues in coastal resource management and practical engagement in one or more of those issues at the regional level. Through a combination of directed readings and lectures, students will learn about goals and objectives in a number of the large environmental management programs in the United States. The survey of management programs will alternate with a focus on the Chesapeake Bay, the Great Lakes, and the Gulf coast in odd years, and the National Estuary Programs in even years. Management strategies will be reviewed and program designs will be assessed. Students will also learn about the practical aspects of environmental management by observation and engagement in ongoing local, state and regional programs. Students will write background papers, draft legislative proposals, prepare outreach materials, and participate in communication of these products as opportunities allow. Credit, which must be arranged in advance of registration, will depend on the complexity of the student's engagement in clinic activities. Maximum enrollment is limited to six students. *The course may be repeated once, provided the instructor determines there is no duplication of subject matter and clinic activities.*

**MSCI 687 - Environmental Policy**

*Fall, odd years (3) Chaijaroen*

This course explores policy making for environmental problems and focuses on issues that are local, national, and international. This course will cover the application of welfare economics to environmental problems. Topics include differences in consumer surplus and other measures of economic welfare and techniques to measure the economic value of environmental resources. We examine national environmental policy, and how that policy is implemented at a local and regional level. We examine the U.S. laws and regulations as well as each agency's approach for quantitatively assessing the benefits and costs of environmental policy. Cross-listed with PUBP 622

**MSCI 688 - Coastal & Marine Policy Seminar**

*Spring (2) Staff*

Students will explore the science-policy interface in a weekly seminar-style course and through 3-day field trips to Virginia's state capitol in Richmond (state-level) or Washington D.C. (federal-level), in alternative years. The course is designed to increase student knowledge of state or federal government structure, particularly the coastal, marine, and environmental resource management agencies, but also the General Assembly or Congress; awareness of the nature of the science-policy interface at the state or federal level, including challenges, opportunities, science communication; awareness of the critical professional skills and competencies needed for careers at the science-policy interface, including opportunities to practice professional networking skills and identify one's strengths and limitations. Grading is pass/fail.

**MSCI 689 - Public Policy for Science & Professions**

*Fall (3) Rossiter*

This course examines what governments do and do not do. The class employs an engaging seminar format using provocative materials with practical applications. Students study the assumptions of public policy analysis, markets and government, tools for analysis, and political institutions (e.g., the executive, legislative branches and interest groups).This course is specifically designed for an interdisciplinary class of professional or graduate students from the Schools of Business, Education, Law, and Marine Science, as well as those in the School of Arts and Sciences who are not in a public policy degree program. Students will come to understand public policy as an academic discipline and as a systematic method of thinking about the design, development, and evaluation of public sector policies and programs. Cross-listed with PUBP 614

**MSCI 693 - Environmental Law**

*As required (3) Law School Staff, Wall Prerequisite(s):* Consent of instructor
A study of the nature and causes of environmental pollution and of the main legal techniques for its control. The course will consider the common law, the environmental impact assessment process (e.g., the National Environmental Policy Act), and the basic regulatory framework for air, water and solid and hazardous waste control (the Federal Clean Air Act, Clean Water Act and Resource Conservation and Recovery Act), with attention given under each statute to the basic regulatory framework and the main policy issues presented by it. Cross-listed with LAW 424.

**MSCI 694 - Land Use Control**

*As required (3) Law School Staff, Butler Prerequisite(s):* Consent of instructor
An analysis of the legal principles governing the use and management of land and the fundamental values underlying those principles. While focusing primarily on government regulation of land use, the course also will examine common law rules which affect the way that land is used. Topics that might be considered include judicial control of land use, zoning and the rights of landowners, zoning and the rights of neighbors, land use planning, public regulation of land development, aesthetic regulation, and the preservation of natural and historic resources. Cross-listed with LAW 425.

**MSCI 695 - Administrative Law**

*As required (3) Law School Staff, Bruhl and Larsen Prerequisite(s):* Consent of instructor
Administrative law establishes the legal controls over the operation of government and hence it relates to almost every legal practice, from security regulation to social programs to criminal justice. Indeed, administrative law is essential to justice in a modern society because administrative agencies generate most of the law that actually affects our lives and because administrative agencies adjudicate far more disputes than the traditional judiciary. This course is an introductory examination of the rules and procedures governing agency decision making. It explores (1) how agencies make policy and (2) how businesses, interest groups, and citizens challenge agency policymaking in court. Cross-listed with LAW 453.

**MSCI 696 - Distributed Courses in Marine Science**

*Fall, Spring, and Summer (1-3) Staff*
This is an avenue through which students can participate in distributed courses to gain experience and training in topics not covered through regular catalog courses and not amenable to other special topics courses (MSCI 697 or 698). Distributed courses are those that are conducted on-line or through other distance-learning methods, that contain significant content from faculty outside of VIMS and William & Mary and for which no other mechanism for awarding credit is available (e.g., transfer of credit from another institution). VIMS faculty are responsible for coordinating the approval of the course and agree to take responsibility for delivery of course content, ensuring student participation, providing a mechanism for addressing questions from students, and assessing the student's learning of the material. Subjects will be announced prior to registration and after approval by the Educational Policy Committee (EPC).

**MSCI 697 - Problems in Marine Science**

*Fall, Spring and Summer (1-4) Staff*
This is the avenue through which supervised projects may be selected to suit the needs of the graduate student, including those wishing to perform an internship as part of the Curricular Practical Training Program. Projects are chosen in consultation with the student's major professor and the instructor. Acceptable research outlines and project reports are required, and the amount of credit depends upon difficulty of course. Examples of projects offered in recent years include management issues in shellfish sanitation; groundwater nutrient processes; bacterioplankton methods and techniques; pesticide analysis in environmental samples; marine molecular population genetics; and law and policy relating to the

introduction of non-indigenous plants. Subjects will be announced prior to registration and after approval by the Educational Policy Committee (EPC).

**MSCI 698 - Special Topics in Marine Science**

*Fall, Spring and Summer (1-3) Staff*

This is the avenue through which subjects not covered in other formal courses are offered. These advanced courses are offered on an occasional basis as demand warrants. Subjects will be announced prior to registration and after approval by the EPC.

Examples of courses offered in recent years include:

- Bayesian Concepts and Methods
- Coastal and Marine Policy Seminar
- Contemporary Topics in Ecology
- Data Analysis using MATLAB
- Drone Applications for Marine Science
- Environmental and Aquatic Animal Health
- Landscape Genetics
- Project Management
- Sediment Transport Models
- SCHISM Modeling for Marshes

Courses proposed to be offered in the near future:

- Animal Husbandry
- Bioavailability
- Diseases in Molluscs
- Fine Sediment Processes & Applications
- HABs
- Remote Sensing Using Unmanned Systems
- Water Quality Observ & Data Analysis

**MSCI 699 - Dissertation**

*Fall, Spring and Summer (1-12) Major or Co-Major Advisor(s)*

This is the avenue for original research in biological, chemical, geological and physical oceanography, environmental science, marine fisheries science and marine resource management. The doctoral project is chosen in consultation with the student's major professor and the Associate Dean of Academic Studies.

## Raymond A. Mason School of Business Courses (BUAD)

### Full-Time MBA Courses

**BUAD 598A - Business Analytics and Supply Chain**

*(3)*

The Business Analytics and Supply Chain Career Acceleration Module combines two mayor themes: Machine Learning techniques and topics in Supply Chain Management. These themes are complimentary since many of the analytical techniques in Machine Learning that are discussed are readily applicable to the Supply Chain discussion topics. The Machine Learning topics include Cross Validation, Subset Selection, Smoothing Splines, Principal Component Analysis, and Support Vector Machines. The topics in Supply Chain Management include single and multi-echelon Inventory policies in stochastic settings, the Sales and Operations Planning process, Risk Pooling and Postponement, and other elements of supply

chain design and operation. Students also visit local port and distribution facilities to obtain real-world exposure to the operational aspects of logistics.

**BUAD 598B - CAM - Brand Management**
*(3)*
The "Customer-Driven Decision Making" module focuses on preparing students for careers in marketing management, primarily in product and brand management for consumer goods (B2C marketing.) The module is organized around the structure and content of a basic marketing plan, with the goal that students will develop a rich understanding of the tools and frameworks of product or brand management as they are applied in the contemporary customer-driven organization.

**BUAD 598C - CAM - Corporate Finance**
*(3)*
The module in Corporate Finance is designed to prepare students for careers in corporate financial decision-making, consulting, and financial analysis. The module aims to develop students' understanding of financial analytical tools and to improve students' ability to interpret and analyze issues typically faced by corporate controllers, treasurers, CFOs, and their staffs.

**BUAD 5011 - Communicating for Results**
*(2)*
Being a successful leader in business or the professions requires effective communication skills. The need to communicate well is critical. This course covers topics relating to the personal awareness and development of communication abilities, as well as, an appreciation of audience analysis, message and content development, structure strategies, and style and tone impact. Throughout the course, students have many opportunities to develop their communication skills by writing, speaking, and increasing their insight and knowledge of the communication process.

**BUAD 5101 - Financial Accounting and Disclosure**
*(2)*
This course develops students' ability to measure, communicate and interpret financial information. Financial accounting provides the most comprehensive source of information used to assess an organization's past performance and future prospects. Specifically, financial accounting focuses on the financial statements and related disclosures prepared in accordance with generally accepted accounting principles. Rather than solely focusing on technical competencies, this course also emphasizes the underlying rationale for accounting practices and the effectiveness of these practices. As such, attention is given to contemporary issues in financial reporting, the use of judgment in financial accounting, and the economic consequences of reporting choices.

**BUAD 5111 - Accounting for Decision Making**
*(2)*
This course develops students' ability to prepare accounting information that enhances decision-making within organizations. The accounting information is non-financial as well as financial, primarily forward -looking, generally model-based, assembled in reference to the needs of managers within an organization (as opposed to regulators, creditors , or shareholders), and often disaggregated to enable various analyses (on products, services, activities, divisions, tasks, operations, etc.) to be performed, which support the performance of management planning and control functions. The course emphasizes managerial decision-making and control of operations using accounting information systems. Included are basic accounting concepts, accounting for manufacturing and investment decisions, and designing management control systems to implement strategies (e.g., transfer pricing, balanced scorecard.)

**BUAD 5211 - IT Infrastructure and Business Transformation**
*(2)*
This course has two foci related to information technology, the first emphasizing information and the second emphasizing technology. In the first focus, students will gain an understanding of how IT enables fundamental transformations in firms, markets, products and business processes through readings and case discussions. These transformations have important implications for the way companies organize (both internally and with customers and suppliers) and compete. Accordingly, this focus addresses the management issues surrounding the impact of information technology in organizations and is designed with the line and general managers in mind, rather than the managers of the IT function. The objective in the technology focus is to provide students with advanced skills in the computer technologies of the modern workplace-namely spreadsheets and databases. When applied creatively, these technologies enable more efficient execution, enhance decision making and support the design of more effective business processes, all of which are essential for success in an increasingly competitive business environment.

**BUAD 5301 - Financial Management**
*(2)*
This course provides students an introduction to important financial concepts critical to both investing and running a successful business. Students will gain an understanding of various financial markets, as well as different approaches to calculating risk and return. Valuable corporate finance skills will be developed to prepare students to become successful financial managers. Financial analysis and forecasting, project evaluation, and financial policy are some of the topics to be covered. The primary objectives of the course are to provide a framework for students to approach the financial decisions they will face in their future careers and to build a solid foundation for graduate students interested in pursuing more advanced coursework in the field.

**BUAD 5401 - Marketing Management**
*(2)*
Focuses on developing integrated marketing programs that address customer needs, competitive activity, channel and supplier behavior, macro environmental factors, and market evolution. Emphasis is placed on assessing the market and developing a responsive marketing mix: product policy, pricing, channels of distribution, integrated marketing communications, and support structure.

**BUAD 5501 - Organizational Behavior & Process**
*(2)*
Designed to provide you with the analytic frameworks and tools to diagnose events in and to take effective action in today's changing organizations. The course draws on knowledge from the domains of Organization Behavior (OB), Organization Theory (OT), and Human Resource Management (HRM) to provide you with the understanding and skills that you need to be an effective manager of people in these changing organizations. OT, OB and HRM are concerned with developing understanding about how human beings act in organized settings and how organized systems affect human behavior through policies, structures and strategies. In addition to conceptual understanding, ongoing assessments and experiential exercises provide you opportunities to reflect on your own behavior in order to develop new and more effective ways of interacting with others to accomplish work.

**BUAD 5601 - Operations and Supply Chain Management**
*(2)*
This course introduces students to Operations Management, one of the major functional areas of business. Operations Management is devoted to how an organization efficiently converts resources into products and services. These resources include an organization's facilities, workforce, equipment,

information, and materials. The course will use two perspectives to explore Operations Management. The first is the "process" view - a set of activities and resources that transform inputs into outputs. We will explore how to design, analyze, and control business processes within a firm. The second half of this course will use the supply chain -- a network of firms that source, make, and deliver the product or service to the customer -- as the overarching model to explore the latest operations-related initiatives.

**BUAD 5701 - Data Analysis**

*(2)*

The aim of this course is to supply the student with the analytical tools needed to succeed in business. The material will be closely coordinated and integrated with the other course offerings in the first year core (economics, marketing, finance, etc.). The course covers the tools that are necessary to analyze and understand the implications of collected data. These include probability distributions, hypothesis testing, correlation and covariance analysis, ANOVA, simple and multiple regression, and forecasting. Emphasis will be placed on a student's ability to apply the appropriate tool to collected data and to understand and interpret the results of their analyses.

**BUAD 5721 - Economic Analysis & Insights**

*(2)*

Decision-making is one of the most crucial roles of managers in public and private firms, large and small. This course draws on microeconomics to develop concepts and techniques that help managers allocate resources efficiently and determine appropriate strategies across their organization including pricing, production, and marketing in the context of various competitive market conditions. This is an applied course where students are actively engaged in using the concepts being covered, culminating in a major team project/presentation.

**BUAD 5801 - Leadership Development & Ethics (LDE)**

*(2)*

The LDE program is intended to help students enhance their professional effectiveness by promoting personal development and the understanding and practice of key leadership skills. Through a range of experiential activities students will cultivate an understanding of their unique strengths, learn how they show up behaviorally and develop skills to push their edge in acting on their values and promoting ethical conduct. In this program, students will be paired with a Mason Executive Partner who will provide personalized coaching to both support and challenge them as they engage in a range of assessments, exercises and simulations.

**BUAD 5811 - Business, Government, and the Global Economy**

*(2)*

This course introduces the basic macroeconomic concepts in the global economy for both industrialized and developing countries. Students are encouraged to analyze business and economic policies and money and capital markets.

**BUAD 5881 - American Politics and National Defense**

*Summer 3*

This course will survey key features of American national politics, including public opinion, Congress, the executive branch, the judiciary, and the policy-making process. There will be an emphasis on war and national defense, including public opinion on war and military conflict, political control of the defense department, national security decision-making, and the question of who has the power to commit the nation to war.

**BUAD 5891 - Federal Budget and National Defense**

*Summer 3*
This course will provide a detailed examination of the federal budget and the budget process, with special emphasis on funding the defense department. Topics will include appropriations, entitlements, the House and Senate Appropriations committees, deficits, public debt, continuing resolutions, supplemental appropriations, authorizations, reprogramming, rescissions, and the Defense Department Planning, Programming, Budgeting, and Execution System (PPBES).

**BUAD 5901 - Global Competitive Strategy**
*(2)*
The objective of this course is for graduate business students to better develop the capacity to think strategically about a company, its business position, and how it gains sustainable competitive advantages in the global environment. In so doing, students will be exposed to the issues that influence the competitive behavior and performance of organizations. Skills will be developed and applied in conducting strategic analysis in a variety of industry and competitive situations by analyzing and crafting business strategies through case studies and class discussion. The primary outcome of this course is for students to be able to apply a manager's strategic perspective to the resolution of major business problems at different levels within the organization, with the goal of improving organizational performance.

**BUAD 5911 - MGJW Core Capstone**
*Summer 4.5 Staff*
The MGJW Core Capstone course is a project based course where small teams of 3-4 officers work on a real-world Lean-Six Sigma project for the U.S. Army. Students work full-time on the projects over an approximately 6 week period. The course involves research, in-depth analysis using both Lean and Six Sigma tools, development of a solution to the problem as well as multiple presentations to different audiences including members of the Senior Executive Service and General Officers. Students are expected to coordinate, and successfully work with, numerous parties including staff at government agencies, contractors and vendors. Students also write a major technical report on the project as well as a shorter article suitable for publishing in one of the Army journals. Students who successfully complete the course requirements receive their Lean Six Sigma Green Belt from the Mason School of Business.

**BUAD 5931 - Charting your MBA Career**
*(.5)*
This course is designed to introduce students to the fundamentals of planning and executing a successful career and job search strategy. Emphasis is placed on identification of individual career goals, assessment of skills and career motivations, exploration of career options, analysis of the job market, effective use of individual marketing tools (e.g., resumes, cover letters, LinkedIn), interviewing skills, effective networking, and evaluating/negotiating job offers. Learning will be through career management staff, guest speakers and experts in talent acquisition, recruiting and interviewing by providing frameworks, theories and real-world examples.

**BUAD 5941 - Bus, Govt, & Global Economy**
*(2)*
This course introduces the basic macroeconomic concepts in the global economy for both industrialized and developing countries. Students are encouraged to analyze business and economic policies and money and capital markets.

**BUAD 5951 - Sprint**
*(1)*
Sprints are first-of-its-kind collaborative work sessions that put you in the middle of the action. You'll partner with some of the world's most dynamic leaders to find solutions for the issues that are affecting today's businesses. During these comprehensive weeklong work sessions, you'll merge theory with

practice by collaborating with top business executives in authentic business settings - and gain resume-building experience in the field.

### BUAD 5961 - Field Consultancy

*(1.5-4.5)*

**Corporate Field Consultancy**

Each year, the Mason School's Corporate Field Consultancy Program contracts with major companies across the mid-Atlantic region. Teams of second-year MBA students work as consultants charged with identifying, researching and proposing a solution for a real business problem faced by their client organization. Each project focuses on different issues, based on the needs of our clients. Each project team works under the guidance of a Faculty member and Executive Partners to address management issues, develop a deeper understanding of the interdependence of functional areas, and polish teamwork and communication skills.

**Entrepreneurship Field Consultancy**

Selected teams comprising second-year MBA students, third year law students, and undergraduates work as consultants charged with identifying, researching and proposing a solution for a real business problem faced by their client organization. Each project team works under the guidance of a Faculty member and Executive Partners to address management issues, develop a deeper understanding of the interdependence of functional areas, and polish teamwork and communication skills.

**Batten Fund**

The Batten Fund project tasks 16 - 17 selected second year MBA students to research stocks in depth, develop an investment thesis, complete valuation analysis, sell the idea to fellow Batten analysts and track the performance of stocks within the Fund if their stock is selected by the group. The funds used are real dollars, donated 17 years ago by Frank Batten.

### BUAD 6001 - Internship Issues

*Summer (1) Graded Pass/Fail.*

This course is for international students completing CPT or students needing educational credit for a summer internship. Two parts will include: a mandatory written paper evaluating the internship due in the fall, and two class sessions in the fall semester of your second year. The credit associated with this course does not count towards your degree requirements.

### BUAD 6151 - Taxation and Business Strategy

*(3)*

This economics-based course provides a conceptual framework for understanding tax issues in the context of business decisions and business strategy. Students learn about the role of taxes throughout the firm's life cycle: choice of organizational form, employee compensation, investment opportunities, capital structure and dividend policy, financial innovations, international operations, and business combinations. The key conceptual components include: (a) consideration of the tax implications for all parties to the transaction; (b) consideration of both explicit and implicit taxes, such as lower before-tax rates of return on tax-favored investments; and (c) consideration of both tax and non-tax costs. Ultimately, the course provides a useful framework for thinking about taxes in all tax regimes (i.e., across countries and over time).

### BUAD 6171 - Advance Audit & Audit Research

*(3)*

Expands and integrates knowledge of US and international generally accepted auditing principles (GAAS) in a rigorous study of financial reporting issues with significant balance sheet implications. Topics include advanced treatments of analytical procedures, audit planning, risk assessment, internal controls, audit evidence, audit documentation, and auditing fair. Incorporates related academic research, research into auditing standards, and contemporary auditing issues.

**BUAD 6181 - Tax Compliance, Research & Planning**
*(3)*
The objective of this course is to broaden the ability of the student to engage in tax compliance, tax research, and tax planning in a team-oriented environment. Group communication opportunities, both oral and written, are emphasized.

**BUAD 6271 - Database Management**
*(3)*
This course considers the application, logical structure and physical implementation of databases to aid in developing business intelligence. Primary topics include data modeling, relational databases, structured query language, data analytics and visualization, amongst other contemporary data management topics. Multiple database management systems and analytical platforms may be introduced.

**BUAD 6311 - Forecasting**
*(1.5-3)*
The course deals with methods and processes for evaluating the future. About two-thirds of the time will be devoted to short-term forecasting, preparing monthly and quarterly forecasts for the next one-two years. The remaining one-third of the course will focus on the long-term, the strategic foresight perspective using futuring methods such as scenarios to explore plausible futures for a 5-15 year time horizon.

**BUAD 6321 - Corporate Financial Policy**
*(3)*
This course is intended to give the students a forum to investigate both the theory and practice of finance in a corporate setting. It covers a broad spectrum of issues facing a financial manager including: planning and financial control; working capital policy; analysis of financing alternatives; capital structure and equity management policy; investment analysis; resource allocation policy; and corporate restructure and merger analysis.

**BUAD 6331 - Advanced Financial Management**
*(2)*
Building on the core finance class, this class will further develop a theoretical and applied understanding of corporate finance. The goal is to develop insights into the methods by which financial managers can create value for their shareholders.

**BUAD 6341 - Investment Management: Equity Markets**
*(1.5) Prerequisite(s):* BUAD 5301
This course will examine the structure and operation of equity markets, the theory and practice of portfolio management, equity valuation, investor behavior, performance measurement, and equity options.

**BUAD 6351 - Investment Management: Fixed Income Markets**
*(1.5) Prerequisite(s):* BUAD 5301
This course will examine the structure and operation of fixed income markets, the characteristics and pricing of bonds, interest rates and interest risk management, credit risk, and fixed income portfolio management.

**BUAD 6361 - Portfolio Management**
*(3)*
This course is designed to give students an understanding of the principles of portfolio management in a

global capital market. Emphasis is placed on mutual fund management. Topics include individual and institutional investor behaviors, international diversification, latest developments in trading, fundamental analysis and technical analysis, performance measurement, mutual fund structures and management, risk management and hedging. Students will emerge from this course with an understanding of the portfolio management process, and with the ability to evaluate the performance of portfolios with respect to different investor objectives and to articulate recommendations for changes.

**BUAD 6371 - International Financial Foundations**
*(1.5)*
This course extends students' understanding of foundational concepts, tools, and techniques necessary to work in an international finance function. Using an applied approach, students develop deeper appreciation for the nature of global connectedness, including both trade and financial flows, and country risk assessment. The live case method engages students in currency markets and exchange rate determination. Management of global outsourcing arrangements, and compliance with the FCPA (Foreign Corrupt Practices Act) complete the course. This course is appropriate for all second year MBA students and for MACC and Public Policy students with some macroeconomic background.

**BUAD 6381 - International Financial Management**
*(1.5)*
This module covers important concepts in international economic and financial analysis, and stresses their use in the financial management of multi-national corporations, in international portfolio management, and foreign direct investment decisions.

**BUAD 6391 - Real Estate Finance**
*Spring (3) Staff*
The real estate market collapse which led to a global financial crisis has changed the way we view and evaluate commercial real estate. This Real Estate Finance CAM will provide students with an essential understanding of the key forces underlying various real estate related financing decisions from unsecuritized local commercial properties to real estate-based financial derivatives traded on Wall Street.

**BUAD 6411 - Marketing Research**
*(2)*
This course is designed to examine marketing research as a systematic process that delivers actionable insights. Special emphasis will be given to digital tools that can be used for data collection and analysis. Topics will include research design and methods, with a focus on how to utilize marketing research for effective management decisions.

**BUAD 6421 - Marketing Strategy**
*(3)*
Focuses on analyzing market threats and opportunities, assessing competitive advantages, forecasting patterns of market evolution and developing marketing strategies that are consistent with these assessments.

**BUAD 6431 - Digital and Integrated Marketing Communications**
*(3) Prerequisite(s):* BUAD 5401
This course explores the evolving world of integrated marketing communications, with special emphasis on digital media. Students will create an integrated marketing communications plan to effectively promote a selected product to a target market through various media channels. In addition, students will examine how digital media tools can be applied to advance professional products and services as well as their personal brands.

**BUAD 6441 - Customer Experience Management**
*(3)*
To be competitive in today's marketplace, service organizations must provide a quality experience for their customers. Customer experience management (CEM) is the process of strategically managing a customer's entire experience with a company. Specifically, this course identifies the key dimensions on which customer perceptions of service excellence are based, and describes strategies for offering superior customer service. Key course concepts include: (1) identifying the key drivers of service excellence, (2) reducing problems (i.e., failures) in service performance, (3) measuring customer and employee satisfaction, (4) developing a service recovery system, (5) understanding the role of employees in the service process, (6) managing and measuring financial customer outcomes, (7) developing social media marketing strategy, and (8) managing customer rewards/loyalty programs. Students who complete this course will not only have a better understanding of how customers evaluate service firms; they will also have a "tool kit" of ideas, measures and techniques to help improve service excellence.

**BUAD 6451 - Solving Creative Problems**
*Spring (3) Staff*
A study of the processes of creativity and innovation in complex problem-solving, informed by both business and inter-disciplinary approaches. Throughout the course, students engage in a mix of experiential, experimental, and reflective exercises designed to promote integrative and creative problem-solving, with an emphasis on the techniques, frameworks and mindsets that drive innovation in organizations.

**BUAD 6461 - Product Management**
*(3) Prerequisite(s):* BUAD 5401
Product Management is an advanced course that focuses on operational-level marketing analysis, with an emphasis on translating marketing strategies into coherent operating plans. While all marketing functions, there is a strong focus on product decisions and the new product development process in marketing programs. The course also develops quantitative and qualitative analysis of market data as part of the planning and control functions.

**BUAD 6471 - Design as Marketing Strategy**
*(3) Prerequisite(s):* BUAD 5401
This course considers the relationship between theories and practice in the two very different realms of strategy and design. The course focuses on analyzing complex information, developing and exploring alternative solutions, and prototyping future innovations and scenarios. Visual and other design techniques and tools are added to the traditional strategic toolbox to bring new insights into new venture strategy, competitive strategy, marketing strategy and tactics, decision sciences, entrepreneurship, business plan writing, and innovation. Personal insights are also a possibility. This course is both a survey of design tools and techniques appropriate to strategy along with an opportunity to apply those appropriate for the project.

**BUAD 6501 - Managing Project Teams I**
*(1.5) Prerequisite(s):* BUAD 5501
Working in teams has become the norm in most organizations, yet most people have many misconceptions about what makes groups effective. Groups can be exhilarating or maddening. This course is designed to develop the knowledge that enables you to improve the performance of most teams.

**BUAD 6511 - Managing Project Teams II**
*(1.5) Prerequisite(s):* BUAD 5501
Building on the foundation of Managing Project Teams I, this course focuses on developing the skills to

design, manage and facilitate project teams. Specific tools for improving team performance will be introduced and applied.

**BUAD 6521 - Management Consulting**
*(2)*
This course examines the management consulting process and prepares students for a role as either an internal or external consultant. The course is designed to provide a framework for understanding the art and science of providing management counsel to client organizations in the public and private sectors. The course follows the process of a typical consulting engagement in identifying key project requirements, feasibility and design alternatives.

**BUAD 6541 - Human Resources Management I**
*(1.5)*
This course will provide an overview of human resource management (HRM) and the connection HRM principles and how those play out in organizations. This course focuses on the everyday decision made by all managers (e.g. selection, evaluation, compensation, termination).

**BUAD 6551 - Teams: Design, Selection, & Development**
*(3)*
Working in teams has become the norm in most organizations yet most people have many misconceptions about what makes groups effective. We will cover work in a variety of teams including: project teams, self-directed teams, research teams, consulting teams, and multinational teams. Groups can be exhilarating or maddening. This course is designed to develop the knowledge and skills to enable you to improve the performance of most teams. The course includes a refresher on practical theories of group effectiveness, application of human resource management techniques to teams; selecting team members; developing the team and its members; applying appropriate rewards, and coverage of skills and tools designed to diagnose and improve team functioning.

**BUAD 6561 - Human Resource Management**
*Spring (3) Staff*
This course will provide an overview of human resource management (HRM) and the connection between HRM principles and how those play out in organizations. The course focuses on a) HRM professionals and their role in working with other organizational managers and leaders to develop and implement effective and efficient HRM practices that support the strategic objectives of their organizations, b) the everyday HRM decisions made by all managers (e.g., selection, evaluation, compensation, termination), and c) puts students in the role of an HRM Director for a growing organization and offers students valuable experience with decisions that affect selection, evaluation, compensation, turnover, productivity, diversity, morale, quality, accident rate, grievances, fringe benefits, absenteeism, termination, and budget utilization.

**BUAD 6571 - Leadership and Planned Change**
*(3)*
Examines current issues in leadership and managerial strategies for successfully implementing, institutionalizing and evaluating change initiatives.

**BUAD 6581 - Human Resources Management II**
*(1.5) Prerequisite(s):* BUAD 6541
This course will provide an overview of human resource management (HRM) and the connection between HRM principles and how those play out in organizations. The course focuses on a) HRM professionals and their role in working with other organizational managers and leaders to develop and implement

effective and efficient HRM practices that support the strategic objectives of their organizations, b) the everyday HRM decisions made by all managers (e.g., selection, evaluation, compensation, termination), and c) puts students in the role of an HRM Director for a growing organization and offers students valuable experience with decisions that affect selection, evaluation, compensation, turnover, productivity, diversity, morale, quality, accident rate, grievances, fringe benefits, absenteeism, termination, and budget utilization.

**BUAD 6591 - Predictive Analytics**
*(3)*
This course is designed to provide students with a deep understanding of the theory and practice fo Classification techniques, which constitutes perhaps the most commonly used techniques in the Data Scientists's toolkit. These Predictive Analytics techniques are important members of a family of analytics often referred to as Machine Learning techniques. An important part of this course is an introduction to a powerful and ubiquitous software package called R, which is used extensively in labs and assignments in this class.

**BUAD 6601 - Management of Emerging Technologies**
*(3)*
This course focuses on the state-of-the-art techniques for developing and managing the development of new products and software, especially those technologies for identifying competitive product and software configurations, rapid prototyping, and discovering what users want and need in a quick, cost-effective manner. Topics include 3D printing, prototyping, voice of the customer, agile development, maturity models, collaborative design, and Scrum.

**BUAD 6611 - Supply Chain Management**
*(3)*
This course deals primarily with the design and operation of logistics networks or supply chains, and the flow of materials and information on them. Students in this course will be exposed to both the strategic and operational aspects of managing today's complex supply chains. Specific topics include vendor-managed inventory; efficient customer response; collaborative planning, forecasting and replenishment; planning distribution and supply; managing product variety, transportation, supply chain planning, distribution and supply; managed product variety; transportation; supply chain planning software; eMarketplaces; inter- and meta-mediaries and design and optimization of supply networks.

**BUAD 6621 - Project Management**
*(1.5-3)*
This course focuses on the management of complex projects and the rules and techniques, which have been developed in the past 25 years to assist managers with such projects. All three phases of project management - Planning, Scheduling, and Control are explored in detail. In addition to studying various scheduling techniques for projects, this course explores issues dealing with project selection methods, project risk assessment, project team dynamics, new product development projects, runaway projects, and monitoring and control of projects.

**BUAD 6631 - Advanced Project Management**
*(1.5)*
This course picks up where Project Management Part I ends. The objectives of this course are to:
• extend the student's knowledge of project management, particularly in the areas of project cost management (cost estimating and application of earned value management) and project risk management. We will use a (30 day trial version) of an add-on software package to MS Project for quantitative risk management.

- expand the student's capabilities with MS Project
- extend the student's knowledge in other areas of project management including (1) project selection, (2) value engineering as well as (3) program management and (4) project portfolio management.

**BUAD 6641 - Lean Toolkit**
*(1.5)*
In this course, you will learn the Lean methodology, which uses a particular type of business process mapping in order to document and understand business processes (values stream mapping). This course would not qualify a student for Green Belt Certification.

**BUAD 6651 - Six Sigma Toolkit**
*(1.5)*
In this course, you will learn the Lean methodology, which uses a particular type of business process mapping in order to document and understand business processes (values stream mapping). This course would not qualify a student for Green Belt Certification.

**BUAD 6671 - Lean Six Sigma Project**
*(1.5)*
Students learn Lean and Six Sigma tools in the Lean Toolkit and Six Sigma Toolkit courses for improving the quality and efficiency of business processes. These courses also offer a first exposure to the application of those tools. This course offers additional experience in applying Lean and Six Sigma tools to a project. Analogous with industry standards, a student who completes this course earns a Lean Six Sigma Green Belt certification.

**BUAD 6691 - Engineering Economic Analysis**
*(3)*
Organizations that do engineering and/or technology development must address the economic aspects of their projects. Early portions of the course assume that benefits, costs, and quantities have a high degree of certainty. The latter portion of the course explores risk (uncertainty) with regard to benefits, costs, and quantities.

**BUAD 6701 - Data Science for Managers**
*(2)*
A family of (often non-parametric) analytical methods collectively referred to as "Machine Learning" methods has grown out of the Artificial Intelligence community and has become commonplace in many of the world's leading analytics competitors. This course introduces students to one of the leading software applications for such tools (the open source system called R), and uses it to discuss several of Machine Learning's most frequently used techniques in supervised and unsupervised learning.

**BUAD 6711 - Advanced Modeling Techniques**
*Spring (3) Staff*
This course is designed to provide students with the skills necessary to develop advanced decision models using a variety of programming and database tools. This semester, we will focus on VBA and Access.

**BUAD 6731 - Healthcare Informatics**
*Spring (3) Staff*
Health Informatics involves the management and use of resources -- technology, capital, governance and people -- and methods such as process management and innovation to promote efficient and effective delivery of healthcare. The objective of this course is to provide an understanding of how to use information, and information systems to support clinical, administrative and patient services in

conducting the business of healthcare. Through hands-on experience, students will learn from analysis of operational or strategic problems in a health care setting and explore challenges and opportunities in various segments of the healthcare industry such as consulting and policy making, supply chain, pharmaceuticals and insurance.

**BUAD 6741 - Principles of Negotiation**
*(3)*
This course uses Game Theory to provide a theoretical foundation for understanding negotiation, and it provides first hand experience in different bargaining situations. A number of tools are developed that are useful in planning and preparing for a negotiation.

**BUAD 6751 - Health Sector Management**
*(1.5)*
This course introduces the structure of a health care organization and the issues such organizations face. Specific topics include ownership, organizational design, responsibilities of functional areas within an organization, metrics used to measure performance, and the description of key processes including financial flows.

**BUAD 6761 - Health Analytics**
*(1.5)*
This course focuses on the sources and uses of data in the analysis of health care data with the goal of improving health care processes and outcomes. Specifically, the course covers various analytical methodologies and the visualization of health care data. The course prepares students for the Certified Healthcare Data Analyst (CHDA) Exam.

**BUAD 6811 - Global Business Immersion**
*(1.5-3)*
The objectives of this course are: 1) to introduce students to the interactive concepts of marketing and culture, 2) to enable students to understand the cultural issues at the corporate, national and transnational levels, 3) to provide insights on effective marketing and management decision making in unfamiliar or cross-cultural settings, particularly with respect to various international contexts, and 4) most importantly to give students unique experiences with cultural immersion.

**BUAD 6831 - Non-Profit Organization**
*(3)*
The objective of this course is to analyze the role of non-profit organizations as economic entities in a market economy (for example, methods of financing these organizations.) The course will also explore liability, application of strategic planning to identify potentially useful market niches of these organizations, the legal obligations of management, and portfolio management appropriate for these organizations.

**BUAD 6851 - Design Thinking**
*(3)*
Design Thinking is a systematic, iterative, human-centered approach to solving tough, real-world problems that are often ill-defined and stubbornly immune to traditional problem solving approaches. Design Thinking is a methodology for generating innovative solutions that are at the intersection of people's needs, technological feasibility, and business viability. This course provides a hands-on introduction to Design Thinking methodologies and mindsets and encourages students to immediately put them into practice.

**BUAD 6861 - Entrepreneurial Ventures**
*(3)*
This hands-on course provides real world, experiential learning about how scalable startups are built. The focus of this course is not how to write a business plan. Rather, it is designed to be more of a practicval course - essentially a startup lab. You will work in teams learning how to turn a great idea into a great company. In fact, you won't just learn about doing it, you'll really do it. This course provides students with a live opportunity to build a venture. You'll learn how to use a business model to brainstorm each part of a company and customer development to validate your model and to see whether anyone other than you would want/use your product. You will get your hands dirty talking to customers, partners, cometitors, as you encounter the chaos and uncertainty of theearly stages of a startup. The goal, within the contraints of a classroom and a limited amount of time, is to create an entrepreneurial experience with all of the pressures and demands of a startup. Finally, based on the customer and market feedback you gathered, you will rapidly iterate your product to build something customers would actually use and buy. Each week you will test each part of your business modell outside of the classroom and share your knowledge/insight gained with the rest of the class.

**BUAD 6871 - Mng & Fin Small Bus Enterprise**
*(3)*
Designed for those who wish to undertake a career journey in the direction of running a smaller business enterprise or a family business. It is structured to allow the students to develop an alternative to a large company or professional service firm. Every aspect of a business is covered, from the legal entity utilized through the management and financing of the enterprise. The creation and review of individual Business Plans will be required.

**BUAD 6881 - Financing Entrepreneurial Ventures**
*(3)*

Covers the essential principles of the risks and rewards associated with Private Equity and Venture Capital. Financial analysis of a business and risk/return characteristics, business valuation methods, and the financing sources are covered to better understand the required returns to risk investors. Other topics include: fundraising, early stage, middle stage, and ultimately late stage investments; buyouts and exit strategies; the structuring of the "deal"; the creation of term sheets, negotiation strategies, and human capital and resources.

**BUAD 6891 - Entrepreneurship Launch Pad**
*(3)*
This course is designed to provide students with an opportunity to apply problem solving, analytical and communications skills and introduce them to the complexities of working in a team to solve a current business problem. The problem will be defined by a corporation or organization that will be paying the Mason School of Business for the students to conduct the consultancy project. The client will expect the student team to work 500/700 hours during the project and produce actionable results.
This course will provide the students with actual experience in conducting a real world management consulting project. The learning process will consist of project definition, project planning and management, client interface and communication, data collection and analysis, making specific recommendations, report writing, and formal and informal presentations.

**BUAD 6951 - Business Research Seminar**
*(0-6)*
Special topics courses allows the faculty to teach cutting edge material.

**BUAD 6971 - Independent Study**
*(0-6)*

**BUAD 6981 - Batten Fund**
*(4.5)*
The Batten Fund project tasks 16 - 17 selected second year MBA students to research stocks in depth, develop an investment thesis, complete valuation analysis, sell the idea to fellow Batten analysts and track the performance of stocks within the Fund if their stock is selected by the group. The funds used are real dollars, donated 17 years ago by Frank Batten.

**BUAD 6991 - Field Consultancy**
*(3)*
Each year, the Mason School's Corporate Field Consultancy Program contracts with major companies across the mid-Atlantic region. Teams of second-year MBA students work as consultants charged with identifying, researching and proposing a solution for a real business problem faced by their client organization. Each project focuses on different issues, based on the needs of our clients. Each project team works under the guidance of a Faculty member and Executive Partners to address management issues, develop a deeper understanding of the interdependence of functional areas, and polish teamwork and communication skills.

## Flex MBA Courses

**BUAD 5013 - Communication for Managers**
*(3)*
The need to communicate well is a critical part of a manager's professional development. This course helps prospective and practicing managers assess and develop their communication abilities to be a successful managerial communicator. Through course activities, students will understand the importance of effective communication in managerial and leadership roles, appreciate the value of strategic organizational communication, and enhance their speaking, writing, and other communication abilities. Special topics in the course include: presentation graphics, ethics, intercultural communication, and media relations.

**BUAD 5103 - Financial Accounting**
*(3)*
Concepts and principles of financial and administrative accounting essential to the interpretation and analysis of accounting information, including financial reports, bankruptcy analysis, budgeting, control, production and costing, stock options, and board governance.

**BUAD 5113 - Managerial Accounting**
*(3)*
This course deals with the use of accounting information for decision-making, planning, and control. The goal is to acquaint the student of management with the fundamentals of internal accounting, better known as management accounting. The emphasis is on using accounting information in managing an organization, rather than product costing and income determination.

**BUAD 5223 - Management Information Systems**
*(3)*
The focus of Management of Information Systems is on the technology that enables its use in the business and organizational setting. Issues such as hardware, software, databases, telecommunications, and the Internet will be discussed. Students will experience hands-on applications in some areas. An

understanding of how Information Technology enables fundamental transformations in firms, markets, products, and business processes will be gained. This course addresses the management issues surrounding the impact of information technology in organizations. It is designed with the line and general managers in mind, rather than the managers of the IS function.

**BUAD 5303 - Finance**
*(3)*
The course covers basic principles and theories of financial valuation, risk pricing and risk management. These principles are applied to corporate finance topics such as: how a firm decides to invest its resources in long term assets and growth opportunities; how a firm will manage its sources of capital and raise funds to finance chosen investments; and how the firm will plan and control funds flow.

**BUAD 5403 - Marketing**
*(3)*
Examination of marketing from a managerial viewpoint; emphasis on evaluating marketing alternatives and in choosing from these alternatives.

**BUAD 5503 - Organizational Behavior**
*(3)*
Designed to provide you with the analytic frameworks and tools to diagnose events in and to take effective action in today's changing organizations. The course draws on knowledge from the domains of Organization Behavior (OB), Organization Theory (OT), and Human Resource Management (HRM) to provide you with the understanding and skills that you need to be an effective manager of people in these changing organizations. OT, OB and HRM are concerned with developing understanding about how human beings act in organized settings and how organized systems affect human behavior through policies, structures and strategies. In addition to conceptual understanding, ongoing assessments and experiential exercises provide you opportunities to reflect on your own behavior in order to develop new and more effective ways of interacting with others to accomplish work.

**BUAD 5603 - Operations Management**
*(3)*
Study of the design, operation, and control of production and operating systems from a managerial standpoint, with emphasis on quantitative methods of analysis.

**BUAD 5703 - Quantitative Methods**
*(3)*
Role and application of statistics in the analysis of business problems including estimation, statistical measures, hypothesis testing, analysis of variance, simple and multiple linear regression and time series analysis.

**BUAD 5713 - Modeling & Simulation**
*(1.5)*
This course is designed to introduce students to basic modeling, analysis, and simulation techniques. Emphasis will be placed on problem identification and formulation, sensitivity analysis, and model construction. Tools such as MS Excel, Solver, Crystal Ball, and @Risk will be used to solve business problems across all business functional areas: Finance, Accounting, Operations, Marketing, Information Systems, Policy, and Human Resource Management.

**BUAD 5723 - Managerial Economics**

*(3)*
This course studies economic analysis applied to managerial decision making. Besides basic topics of demand, cost and production, and market structures, this course also covers demand forecasting, pricing strategies, game theory, and information economics.

**BUAD 5903 - Global Competitive Strategy**
*(3)*
Pre-req: Complete Phase II courses and two electives. Covers analysis for decision making at industry, firm and business levels, focusing especially on multi-business firms and global industries. Firm resources and competencies, business and environmental demands, and the sources of competitive advantage are the major focus points of this course, which stresses practical applications of theory.

**BUAD 5943 - National & Global Economies**
*(3)*
This course is intended to provide information that can be used to interpret economic events and assess their impact on the economy and an organization. Part of this information concerns not just economics but an understanding of how some political choices are made in various countries. This knowledge is critical for risk assessment and a realistic planning of business operations over the next year. You leave the course with some fundamental "rules of thumb" that allow you to assess potential large scale economic risks to your organization.

## Executive MBA Courses

**BUAD 5015 - Communication for Executives**
*(1.5)*
This course is designed specifically for the communication needs of executives. Building on skills and knowledge essential for successful communication, the course will focus on the value of effective managerial communication, provide an understanding of strategic organizational communication, and enhance speaking, writing, and other communication abilities.

**BUAD 5105 - Accounting - Reporting & Analysis**
*(2.5)*
This course introduces the basic concepts of financial accounting necessary to generate financial statements and reports. It examines strategies used to master the economic subtleties of business, and provides the managerial skills needed to analyze and interpret financial statements for internal and external use. BUAD 5705 Statistics for Business (2.5 Credits): This course focuses on data analysis and how managers use data to make better business decisions. We will examine the role and application of statistics in the analysis of business problems including estimation, statistical measures, hypothesis testing, analysis of variance, and regression models.

**BUAD 5115 - Accounting for Decision Making & Control**
*(2.5)*
This course continues the accounting series with cost accounting, activities analysis, profit planning and budgetary systems, cost allocations, transfer pricing, and performance evaluation.

**BUAD 5215 - Managing Information Systems**
*(2.5)*
The course focuses upon strategic influence of information technology (IT) within organizations. Designed primarily for non-IT executives, the course will prepare for understanding of technological vocabulary, emerging technologies and how they enhance core business functions, and demonstrating the

business value of IT investment. Practice based exercises will augment the learning experience through modeling IT choices and information utilization.

**BUAD 5305 - Financial Management**
*(2.5)*
This course is structured on the concepts and tools of valuation. It covers financial and project analysis, financial forecasting, risk and return, cost of capital, mergers and acquisitions, and valuation.

**BUAD 5325 - Corporate Financial Policy**
*(2.5)*
Building on the topics in Financial Management, Corporate Financial Policy covers advanced topics in financial markets and strategy, including debt and equity management policy, financing, derivatives and risk management, and international finance.

**BUAD 5405 - Marketing Management**
*(2.5)*
This course focuses on the problems of building an integrated marketing program in light of external forces, such as the consumer, the trade, the competition and the regulatory environment. Specific emphasis is placed on the marketing concept, the marketing mix, market definition and dynamics, segmentation and positioning, and product/market evolution.

**BUAD 5425 - Marketing Strategy**
*(2.5)*
This course focuses on the formulation of marketing strategy, including balancing market opportunities and threats with available resources and alternative responses, as well as analysis of markets, product and pricing strategies.

**BUAD 5505 - Leadership in an Uncertain Era**
*(2.5)*
This course is designed to improve your effectiveness as a manager by deepening your understanding of how organizations work. To succeed in the business world, you must (a) analyze organizational events and processes and (b) design and implement actions to increase organizational effectiveness. These critical leadership skills are even more important today, as organizations enter a period of enormous upheaval and change. The course begins with an intensive two-day leadership forum that focuses on heightening your awareness of leadership challenges and enhancing your ability to address them. As the semester continues, we build upon that seminal experience by exploring how the structure, power relations, and culture of organizations shape and constrain the behavior of individuals within them. The course culminates in a project in which you apply both conceptual tools and leadership skills to events in your current organization.

**BUAD 5515 - Leading Change in Organizations**
*(2.5)*
Building on the concepts from Leadership in an Uncertain Era, this course examines the leader's role in diagnosing, anticipating, planning, implementing, and evaluating change within organizations. Case studies and group projects focus on organizational analysis, barriers to change, overcoming resistance to change, change intervention strategies and methods, and change evaluation.

**BUAD 5605 - Operations & Supply Chain Mgmt**
*(2.5)*
To achieve competitive advantage, managers must understand how to design and control products and

services, as well as the systems for their delivery. To reach that understanding, this course focuses on issues of planning and control of complex products and services, managing quality and continuous improvement, and control of the supply chain.

**BUAD 5705 - Data Analysis (Part 1)**
*(1.5)*
This course focuses on data analysis and how managers use data to make better business decisions. We will examine the role and application of statistics in the analysis of business problems including estimation, statistical measures, hypothesis testing, analysis of variance, and regression models.

**BUAD 5715 - Data Analysis (Part 2)**
*(2.5)*
This course is designed to introduce students to basic modeling, analysis and simulation techniques. Emphasis will be placed on problem identification and formulation, sensitivity analysis and model construction. Spreadsheet tools will be used to solve business problems across various business functional areas.

**BUAD 5725 - Managerial Economics & Public Policy**
*(2.5)*
This introductory applied economics class examines the basic concepts and applications of demand and supply analysis. The course also explores topics of production and pricing in both domestic and international markets. Furthering the understanding of different market structures, this course focuses on the causes and consequences of market failures, the application of game theory to corporate decision-making, and the impact of technological change, international competition and government regulation.

**BUAD 5805 - Ethical Accountability**
*(1)*
In a world of increased global trade and commerce, this course focuses on understanding and managing the differing standards for everything from earnings to ethics. The course serves to help us better understand values, our accountabilities, and the impact of our decisions and actions in the workplace. To reach this understanding, issues of business ethics, business strategy and emerging technologies, and managing conflicting interests in a global economy will be discussed.

**BUAD 5815 - Global Business Immersion**
*(2.5)*
An examination of the distinctive management issues that arise when firms are either contemplating or already doing business across national boundaries. This course requires the integration and application of knowledge and skills learned in earlier courses and also introduces the critical business skills of understanding and managing strategic issues in international settings.

**BUAD 5905 - Strategic Management**
*(2)*
This course is the study of the management of organizations with special focus on the roles and tasks of individual managers. The course deals with analyzing external and internal environmental forces; formulating organizational objectives; understanding the often conflicting needs and expectations of customers, employees, investors and other stakeholders; defining and appraising alternative courses of action; formulating and executing action plans; and establishing systems for monitoring and measuring results.

**BUAD 5945 - Global Environment of Business**

*(2.5)*
This course focuses on how domestic and international product and financial markets operate. Students will develop expertise in applying models to generate qualitative forecasts of economic growth, interest rates, exchange rates and inflation. Through the analysis of case studies, the students will develop an understanding of policy decisions at the Federal Reserve and the effect that these policies have in the money and exchange rate markets.

**BUAD 6245 - EMBA Elective**
*(2)*
EMBA students get to choose an elective towards the end of the third semester of residency.

## Online MBA Courses

**BUAD 5007 - Online MBA Residency**
*Fall and Spring (0 - 1) Staff Graded P/F*
This is a Special Topics course. Students must participate in one of several weekend workshops offered on campus as a requirement for graduation. Each workshop will be focused on a topical business theme. The workshops will be offered 2-3 times each year, and students may meet this degree requirement by participating in any one of them. Students may opt to participate in more than one weekend workshop, but may only receive one credit toward their degree.

**BUAD 5017 - Renaissance Manager**
*(4)*
This course provides a context for business, historically, functionally, and cross-culturally. It addresses the nature of problems; modes of thinking and inquiry; approaches to problem identification, framing/re-framing, and problem-solving; and approaching problems from multiple, interdisciplinary perspectives.

**BUAD 5107 - Accounting**
*(4)*
This course introduces students to the roles that accounting systems play in organizations and in global capital markets. Accounting is often called "the language of business," which emphasizes the prominent position it has in business communications and decision making. Reports derived from accounting systems are often the primary way information within organizations, and from organizations to various stakeholders, is communicated. Such information is essential input for, and serves a fundamental basis for, managerial and stakeholder decisions. By the end of this course, students should know the fundamentals of this language so that they can communicate effectively about important business matters.

**BUAD 5227 - Integrated Technology**
*(4)*
This course is designed to introduce students to the basic information technology and digital fluency. Emphasis will be placed on understanding how managers can participate in opportunities to select and successfully implement information technologies in order to promote business strategy. Interactive analytic tool will be used to solve business problems involving various functional areas.

**BUAD 5307 - Finance**
*(4)*
Students will learn about concepts and tools of valuation, financial and project analysis, financial forecasting, risk and return, cost of capital, mergers and acquisitions, and valuation.

**BUAD 5407 - Marketing**

*(4)*
Focuses on developing integrated marketing programs that address customer needs, competitive activity, channel and supplier behavior, macro environmental factors, and market evolution. Emphasis is placed on assessing the market and developing a responsive marketing mix: product policy, pricing, channels of distribution, integrated marketing communications, and support structure.

**BUAD 5507 - Organizational Behavior**
*(4)*
Organizational behavior is a field of study that seeks to understand, explain, and improve human behavior. The structure of this course is organized around how renaissance managers can improve two aspects of human behavior: (1) job performance - the degree to which employees perform the behaviors needed for the organization to achieve its goals, and (2) organizational commitment - the degree to which employees remain loyal to the organization rather than seeking employment elsewhere. This course will guide you through a model that seeks to explain these two areas of organizational behavior.

**BUAD 5517 - Leadership in the 21st Century**
*(4)*
Leadership in the 21st century involves much more than the traditional topics of culture, networking, change management, and diversity. In a society in which technologies are constantly disrupting modes of communication and teams are increasingly global, today's manager needs to understand coping with constant change, messaging and empathy, and the powerful emerging leadership trends.

**BUAD 5607 - Operations**
*(4)*
To achieve competitive advantage, managers must understand how to design and control products and services, as well as the systems for their delivery. To reach that understanding, this course focuses on issues of planning and control of complex products and services, managing quality and continuous improvement, and control of the supply chain.

**BUAD 5707 - Business Analytics**
*(4)*
The aim of this course is to supply the student with the analytical tools needed to succeed in business. The material will be closely coordinated and integrated with the other course offerings in the first year core (marketing, finance, etc.). The course covers various tools that are necessary to analyze and understand the implications of collected data. These include statistical tools (hypothesis testing, correlation and covariance analysis, probability distributions, simple and multiple regression, and forecasting) along with statistical decision making, simulation, constrained optimization, and sensitivity analysis. Emphasis will be placed on a student's ability to understand and interpret the results of their analyses.

**BUAD 5907 - Strategy**
*(4)*
Covers analysis for decision making at industry, firm and business levels, focusing especially on multi-business firms and global industries. Firm resources and competencies, business and environmental demands, and the sources of competitive advantage are the major focus points of this course, which stresses practical applications of theory.

**BUAD 5947 - Global Managerial Economics**
*(4)*
This course explores essential macro- and microeconomic theories and evidence on how markets work and factors that impede their proper functioning in an applied, global framework. In this course students

will relate the effects of countries' differing monetary and fiscal policies to competitive conditions in various industries. They will apply demand and cost analysis as well as industrial structure to frame and answer questions of optimal pricing, resource allocation, global outsourcing, and competitive strategies.

**BUAD 5967 - Revolutionary Leader Practicum**
*(4)*
Revolutionary Leader is a supervised business practicum in which each student applies the functional as well as design skills that they have learned to the "wicked" problem of their choice. The final deliverable is a detailed description of the problem to be solved, the approach(es) taken to address it, results, lessons learned, and next steps.

## Master of Accounting Courses

**BUAD 5029 - Accounting for Complex Financial Transactions**
*Fall (3) Picconi*
Expands and integrates knowledge of US and international generally accepted accounting principles (GAAP) in a rigorous study of financial reporting issues with significant income statement and balance sheet implications. Builds on the Financial Markets Module to develop an in-depth understanding of complex financial transactions. Incorporates related academic literature and research into financial reporting standards.

**BUAD 5039 - Current Issues in IT & Accounting Analytics (Sprint)**
*Spring (1) Jones*
Develops an understanding of current issues in information technology and accounting analytics, such as the design and security of large accounting databases. This intensive, hands-on course emphasizes the use of analytical and statistical tools in the context of current issues affecting the accounting profession. Students will conduct analyses, interpret findings, and use data visualization tools to communicate the results of their analyses.

**BUAD 5049 - Valuation & Fair Value Accounting**
*(2)*
Reviews theories of equity valuation and applies these theories by building valuation models using financial statements.

**BUAD 5069 - Business Skills for Professional Accountants**
*Fall (2) Smith*
Enhances several key abilities necessary to function in a professional accounting environment. Topics include: clearly communicating technical knowledge, exercising professional judgment, protecting and upholding professional integrity, how to develop and maintain professional relationships, how to generate and provide useful data to help inform business decisions, and the responsibility to help boards fulfill fiduciary duties and in maintaining safe and productive financial markets. Particular focus is on oral and written communication, data analysis, and project leadership.

**BUAD 5079 - Financial Instruments & Derivatives**
*Fall (2) Merrick*
Expands the accounting professional's understanding of the most important financial instruments and derivatives. Examines their economic functions, contractual features, market mechanics, valuation, and specific uses in investment and corporate financial practices such as risk management. Special attention is given to debt securities and the securitization process, as well as commonly used derivative instruments.

**BUAD 6129 - Integrated Winter Field Experience**
*Spring (4) Foster*
This course is designed to assist students in successfully integrating workplace issues into past and future academic education. Students will learn to use academically rigorous conceptual frameworks in analyzing and solving problems that arise in the field.

**BUAD 6149 - Driving Organizational Performance**
*Spring (3) Woods*
This course will cover managerial accounting topics such as: customer lifetime value estimation, cost of service delays, cost of quality analyses, time-driven Activity-Based-Costing, profit planning along the value chain, financial and operational forecasting, outsourcing, supplier choice and performance measurement, and analyses of profit drivers. This course replaces the Accounting for Business Strategies course, which met the cost credit requirement.

**BUAD 6159 - Taxation & Business Strategy**
*Spring (3) Bertolini*
This economics-based course provides a conceptual framework for understanding tax issues in the context of business decisions and business strategy. Students learn about the role of taxes throughout the firm's life cycle: choice of organizational form, employee compensation, investment opportunities, capital structure and dividend policy, financial innovations, international operations, and business combinations. The key conceptual components include: (a) consideration of the tax implications for all parties to the transaction; (b) consideration of both explicit and implicit taxes, such as lower before-tax rates of return on tax-favored investments; and (c) consideration of both tax and non-tax costs. Ultimately, the course provides a useful framework for thinking about taxes in all tax regimes (i.e., across countries and over time).

**BUAD 6169 - Business Law**
*Spring (3) Stauffer*
Following an introduction of the American legal system, Business Law will expose students to an in-depth look at contract law, commercial law, including the Uniform Commercial Code's Articles on Sales, Negotiable Instruments, Secured Transactions and Creditors Rights. Additional topics covered include bankruptcy, agency law, business organizations, including sole proprietorships, partnerships, LLC, and corporations.

**BUAD 6179 - Tax Research & Current Topics**
*Spring (3) Stephens*
Expands and integrates knowledge of domestic and international tax topics in a rigorous research-based study of U.S. tax law, tax planning and tax compliance, including contemporary topics such as comparative forms of doing business, compensation and benefits, international and multistate taxation, corporate reorganizations, and tax exempt entities. Incorporates relevant academic research, as well as statutory and case-based research into tax laws and regulations related to contemporary tax issues.

**BUAD 6189 - Estate & Financial Planning**
*Spring (3) Stephens*
This course provides an introduction to the principles of estate and financial planning, with an emphasis on tax planning opportunities. Topics include a study of the estate and gift tax laws, effective use of trusts and life insurance, valuation techniques, integrated family tax and financial planning, succession planning for the closely-held business, and elections available to taxpayers. Also featured are debt management, retirement planning and investment planning, with an emphasis on issues facing both younger professionals as well as high net worth individuals.

**BUAD 6199 - Advanced Auditing & Audit Research**
*Fall (3) Foster*
Expands and integrates knowledge of US and international generally accepted auditing principles (GAAS) in a rigorous study of financial reporting issues with significant balance sheet implications. Topics include advanced treatments of analytical procedures, audit planning, risk assessment, internal controls, audit evidence, audit documentation, and auditing fair. Incorporates related academic research, research into auditing standards, and contemporary auditing issues.

**BUAD 6209 - Govt & Non-profit Accounting**
*Spring (3) Foster*
This course is designed to expose graduate business students to the financial accounting and auditing issues related to state and local governmental and not-for-profit organizations in the United States. Students will review the body of accounting and auditing literature, specifically related to organizations in the public sector. Due to time constraints, Federal government accounting will not be addressed.

**BUAD 6229 - Financial Statement Analysis**
*Spring (3) Shane*
This course introduces students to the elements of financial statement analysis and increases students' ability to extract and use information from financial reports. While financial statements are prepared in accordance with specific accounting rules and principles, most of the numbers in financial statements are based on a set of assumptions and choices made by management. In this class, students learn how to identify and adjust for the effects of accounting choices on the comparability of reported earnings and other accounting performance measures across countries, across firms, and over time. Students also learn how to evaluate circumstances where accounting rules can cause disruptions in trends making it difficult to forecast earnings and free cash flows. In addition, students learn techniques to identify earnings management, as well as assess whether the financial statements reflect the riskiness of the firm. Finally, because many large companies operate in a global environment, the class will examine problems created by differences in accounting standards across countries (e.g., U.S. Generally Accepted Accounting Principles versus International Financial Reporting Standards), as well as issues inherent in multinational companies such as how foreign currency affects financial statements.

**BUAD 6239 - Audit Analytics & Information Systems**
*Spring (3) Staff*
Develops in-depth knowledge about conducting an information systems audit, developing frameworks for management and application control, using audit software, conducting concurrent auditing techniques, evaluating data integrity, system effectiveness, and system efficiency. Also introduces: technical security controls to prevent, detect, respond to, and recover from cyber-attacks; risk and vulnerability analysis to select, design and evaluate security controls; and legal, ethical, and privacy aspects of information assurance.

**BUAD 6249 - Data Analysis & Simulation for Accountants**
*Spring (3) Guerrero*
This course is designed to introduce students to basic modeling, analysis and simulation techniques. Emphasis will be placed on problem identification and formulation, sensitivity analysis, and model construction. Tools such as MS Excel, Solver, Crystal Ball, and @Risk will be used to solve accounting-related business problems.

**BUAD 6269 - Advanced Federal Taxation**
*Spring (3) Stephens*
To provide the accountant and the manager with the ability to recognize tax factors that influence

business decisions and to integrate them into the business decision-making process. This will include the development of a tax foundation, the ability to read and apply the Code and Regulations, the ability to conduct tax research using both online and offline tax research data bases, the ability to engage in effective tax planning, and the ability to present the identified tax consequences in both oral and written presentations. Ethical influences will be identified and discussed as related to taxation and the related business decision.

**BUAD 6279 - Forensic Accounting & Fraud Examination**

*Spring (3) Staff*

This course is an introduction to forensic accounting. Forensic accounting encompasses those services an accountant provides to assist a court or a client in settling a legal dispute and includes the following specialized knowledge and skills: 1) accounting, auditing, economics, finance, business law, quantitative methods, statistics, and tax; 2) investigative skills to collect, analyze, and evaluate evidential matter; and 3) written and oral communication skills. The content of this course will include: 1) fraud and financial investigation services; 2) litigation consulting and expert witness services; and 3) computer forensics. To illustrate concepts, the class will discuss high profile cases (e.g., investment frauds such as Madoff and financial statement frauds such as WorldCom, Enron, etc.). Guest speakers who possess specialized expertise may present on selected topics (e.g., fraud investigation, interviewing and interrogation techniques, cybercrime and digital forensics analysis, and the legal environment).

**BUAD 6289 - Taxation of Mergers & Acquisitions**

*(3)*

Selected Problems in the Taxation of Mergers & Acquisitions This advanced course focuses primarily on corporate transactions and by using a series of examples, this course will explore different ways to structure both nontaxable and taxable combinations of business entities considering the tax goals and consequences of such transactions, and the role of the tax lawyer in representing a party to a business combination.

**BUAD 6299 - Partnership & LLC Taxation**

*Spring (3) Richardson*

This course examines the fundamental rules governing the federal income taxation of partnerships, including LLCs treated as partnerships for income tax purposes. An overview of S corporation taxation and federal income tax issues to consider in choosing the appropriate entity are also covered. .

**BUAD 6319 - Tax Compliance, Research & Planning**

*Fall (3) Bertolini*

The objective of this course is to broaden the ability of the student to engage in tax compliance, tax research, and tax planning in a team-oriented environment. Group communication opportunities, both oral and written, are emphasized.

**BUAD 6329 - Introduction to Academic Research in Accounting**

*Fall (1) Staff*

Students will develop a framework for understanding scholarly research in accounting and will gain exposure to classic and current accounting research studies.

**BUAD 6339 - Data and Analysis in Accounting Research**

*Fall (1) Staff*

Students will develop findamental empirical skills, such as the use of databases and regression analysis. Applications will include the replication of a published accounting research study.

**BUAD 6349 - Design of Accounting Research Studies**
*Fall (1) Staff*
Students will learn to apply the scientific method to accounting research questions by studying research designs used in scholarly accounting research and their effectiveness for causal inference. Applications will include addressing a research question using alternative designs.

**BUAD 6359 - Current Research in Accounting**
*Spring (1) Staff*
Students read and discuss current academic research papers presented by William and Mary faculty and external accounting researchers. This course is open to any student interested in how research informs business practices and is well-suited for students considering careers in academia. Attendance at research presentations is required. Topics change each year so this course may be repeated once for credit.

## Master of Science in Business Analytics Courses

**BUAD 5012 - Competing Through Business Analytics**
*Fall (3) Bradley*
This intensive course will include a survey of the state-of-the-art in business analytics: A review of companies that have used business analytics for competitive advantage and how they have done it. These topics will be initiated with a panel discussion on the first day of class. This course will teach business acumen and how the field of analytics fits within the context of business. Topics will include subjects such as: understanding balance sheets and income statements, budgets, business metrics as used for performance measurement and incentives, communicating with impact, visualization, the functions of a company; how they interact, and what data they have, and project management techniques. The course will also include: Survey of opportunities for problem solving using business analytics in operations, supply chain, human resources, finance, and marketing, and also an introduction to the tools that are covered in this program.

**BUAD 5022 - Optimization**
*Fall (3) Koehl Corequisite(s):* BUAD 5272
Optimization is an analytics methodology found in all business analytics programs at the master's level. This course will provide knowledge in optimization and analytics that are the foundations of analytics methodology including the theory and application of optimization techniques such as linear programming, integer programming, mixed-integer programming, and stochastic programming.

**BUAD 5032 - Intermediate Probability & Statistics**
*Fall (3) Koehl*
Intermediate Probability and Statistics is a foundation course in the study of business analytics. It provides an understanding of the principles associated with modeling of stochastic processes. The topics will include: probability theory (important probability distributions, sampling from distributions, interaction of multiple stochastic processes); statistical analysis (descriptive/inferential/predictive statistics, multivariate statistics, time series models); and modeling (modeling concepts, Monte Carlo simulation, decision analytics). Students will also be introduced to a variety of statistical modeling packages.

**BUAD 5042 - Heuristic Algorithms**
*Fall (1.5) Bradley Prerequisite(s):* BUAD 5022
Most business problems are too large or too complex to solve optimally, where the strict meaning of "optimal" means finding the "probably" best solution to a problem. Satisficing, or finding a heuristic solution that approximates the optimal solution is, therefore the predominant mode of problem solving

found in industry. Having the capability of designing and executing heuristics that more closely approach optimal solutions creates a competitive advantage for companies. This course focuses on such methodologies where quick but good solutions to complex problems are needed so that they can be acted upon in a timely manner. The type of heuristic covered in this course is the algorithm, which is a sequence of steps taken to provide a solution to a problem.

**BUAD 5072 - Machine Learning I**

*Fall (3) Murray Corequisite(s):* BUAD 5032
This course is designed to provide students with a deep understanding of the theory and practice of regression and classification, two of the most commonly used techniques in the data scientist's toolkit. These predictive analytics techniques are important members of a family of analytics often referred to as machine learning techniques, and they are the basis for more elaborate machine learning techniques that will be covered in a sequential course called Machine Learning 2. An important part of this course will cover a powerful and ubiquitous software package called R, which is used extensively in labs and assignments in this class and subsequently reappears in other classes throughout the program.

**BUAD 5082 - Machine Learning II**

*Fall (3) Murray Prerequisite(s):* BUAD 5072
This is the second of two courses designed to equip students with the kinds of analytical skills used in the era of Big Data to reveal the hidden patterns in, and relationships among, data elements being created by internal transaction systems, social media and the Internet of Things. This second machine learning course covers many methodologies including various non-linear approaches, tree-based methods, support vector machine, principal components analysis, and the analysis of unstructured data via unsupervised machine learning techniques. The R language is used extensively in this course.

**BUAD 5272 - Database Management**

*Fall (3) Tremblay*
Internet-scale applications and modern business processes generate voluminous data pertaining to business vital signs, market phenomena, social networks that connect millions of users, and the habits of users and customers. Data produced in these settings hold the promise to significantly advance knowledge and provide business opportunity. This course covers fundamentals of database architecture, database management systems, database systems, principles and methodologies of database design, and techniques for database application development. The course also examines issues related to data organization, representation, access, storage, and processing. This includes topics such as metadata, data storage systems, self-descriptive data representations, semi-structured data models, semantic web, and large-scale data analysis.

**BUAD 5722 - Big Data**

*Fall (3) Wilck Prerequisite(s):* BUAD 5272
The data storage and retrieval techniques that have served the information processing industry for decades have proven inadequate in the face of the huge collections of data presently being created by the web and the so-called "Internet of Things." Businesses are requiring a new set of technologies that are specifically designed to deal with these huge data sets. In this course, MapReduce techniques will be taught which will include parallel processing and Hadoop, an open source framework that implements MapReduce on large-scale data sets. Other Big Data tools will be taught that provide SQL-like access to unstructured data: Pig and Hive. Finally, we will teach so-called NoSQL storage solutions such as HBase.

**BUAD 5732 - Data Visualization**

*Fall (1.5) Ganeshan*
This course introduces principles and techniques for data visualization for business. Effective visuals

communicate information to maximize readability, comprehension, and understanding. Information visualization principles are drawn from the fields of statistics, perception, graphic and information design, and data mining. Students will learn visual representation techniques that increase the understanding of complex data and models. Human information processing and encoding of visual and textual information will be discussed in terms of selecting the appropriate method for displaying of appropriate data, both quantitative and qualitative. Topics include charts, tables, graphics, effective presentations, and dashboard design. Cases will be used from a variety of industries.

### BUAD 5742 - Artificial Intelligence

*Fall (3) Blossom Prerequisite(s):* BUAD 5022
This course provides competence in an essential set of tools that are not covered in other courses. Artificial Intelligence (AI) methods perform well in cases of large, complex problems, which is the focus of cutting-edge business analytics endeavors. This course covers AI methods such as genetic algorithms, neural networks, and fuzzy logic. AI comprises a set of essential analysis techniques for the modern data scientist who solves problems that encompass vast data sets and involve complex relationships.

### BUAD 5792 - Business Analytics Capstone

*Fall (3) Bradley Prerequisite(s):* BUAD 5012, BUAD 5022, BUAD 5032, BUAD 5072, BUAD 5272, BUAD 5722, BUAD 5042, BUAD 5732, BUAD 5742, BUAD 5082
This course is taught in the last two and a half weeks of the Business Analytics Program and requires students to complete a comprehensive business analytics project, from start to finish. The projects require that students apply the knowledge gained in the preceding courses. Students will identify the most appropriate techniques for their projects and then apply one methodology effectively. Projects are characterized as requiring the analysis of vast data and solving complex problems. Several projects hosted by businesses would be offered, with the goal of representing multiple functions and industries to suit students' interests. They will define and frame a complex problem, develop a systematic approach to solving it using analytics, generate an innovative solution and persuasively convey that solution using data visualization techniques and communication skills. A unique faculty supervisor will be assigned to each business analytics capstone team (average 4-5 students per team).

## Online Master of Science in Business Analytics Courses

### BUAD 502A - Probability and Statistics I

*(3) Prerequisite(s):* This course is a prerequisite to begin the remainder of the program, students may be able to satisfy these prerequisites with courses from other sources, this is handled during the admission and onboarding process.
This course covers, first in the area of probability, the concepts of discrete and continuous probability distributions as well as conditional probability. This course also covers basic statistics, which is a set of tools for interpreting data. Descriptive statistics are covered which, as the name implies permits us to describe basic characteristics of data: this includes the computation of means, standard deviations, and ranges of a data set. The course also covers inferential statistics, which are methods for uncovering deeper insights from the data: these methods include hypothesis testing. Data visualization is also an integral part of data analysis and this course.

### BUAD 502B - R Programming

*(1) Prerequisite(s):* This course is a prerequisite to begin the remainder of the program, students may be able to satisfy these prerequisites with courses from other sources, this is handled during the admission and onboarding process.

This course provides a set of programming skills using the R programming language, which is a widely used programming language in business analytics for statistical computations.

**BUAD 502C - Python Programming**

*(1) Prerequisite(s):* This course is a prerequisite to begin the remainder of the program, students may be able to satisfy these prerequisites with courses from other sources, this is handled during the admission and onboarding process.
This course provides a foundation of Python programming skills for business analytics including knowledge of Python data types, facilitating repeated execution through the application of loops, using conditional statements, programming the input and output of data, the use of Python packages, and the construction of functions.

**BUAD 502D - Linear Algebra for Business Analytics**

*(3) Prerequisite(s):* This course is a prerequisite to begin the remainder of the program, students may be able to satisfy these prerequisites with courses from other sources, this is handled during the admission and onboarding process.
This course provides a set of linear algebra tools for performing business analytics including vector-matrix multiplication, Gaussian elimination, computing determinants, computing matrix rank, computing matrix column and row spaces, performing eigenanalysis, and performing principal components analysis.

**BUAD 5052 - Probability and Statistics for Business Analytics**

*(4)*
Probability and Statistics is a foundation course in the study of Business Analytics. It provides an understanding of the principles associated with modeling of stochastic processes. The topics will include: Probability Theory-important probability distributions, sampling from distributions, interaction of multiple stochastic processes; Regression; Statistical Analysis-descriptive/inferential/ predictive statistics, multivariate statistics, time series models; Modeling-modeling concepts, Monte Carlo simulation, decision analytics. Students will also be introduced to a variety of statistical modeling packages.

**BUAD 5092 - Optimization and Heuristics**

*(4) Prerequisite(s):* BUAD 5272 - Database Management and Visualization
Optimization is an analytics methodology designed to yield the best solution to a given problem. Students are exposed to theory and applications of optimization including linear programming, non-linear programming, discrete optimization, and specialized networks. Included in this course is discussion about the difficulties of accurate representing real-world processes with a mathematical model. Most business problems are too large or too complex to be solved optimally, where the strict meaning of "optimal" means finding the provably best solution. Finding a solution that approximates the optimal solution is, therefore, the predominant mode of problem solving found in industry: these are called heuristic solutions. Many companies gain a competitive advantage by constructing heuristics that either find better solutions than do their competitors or find solutions more quickly. This course focuses on achieving such results by programming custom algorithms, which are a sequence of steps taken to provide a solution to a problem.

**BUAD 5112 - Competing through Business Analytics**

*(4)*
This course will include a survey of the state-of-the-art in business analytics: what companies have used business analytics for competitive advantage and how they have done it. This course will teach business acumen and how the field of analytics fits within the context of business. Topics will include business metrics as used for performance measurement and incentives, communicating with impact, visualization, the functions of a company; how they interact, and what data they have, and the development and

deployment of algorithms. The course will also include: survey of opportunities for problem solving using business analytics in operations, supply chain, human resources, finance, and marketing, and also an introduction to the tools that are covered in this program.

**BUAD 5122 - Machine Learning I**

*(4) Prerequisite(s):* BUAD5052 - Probability and Statistics for Business Analytics
This course is designed to provide students with a deep understanding of the theory and practice of Regression and Classification, two of the most commonly used techniques in the Data Scientist's toolkit. These Predictive Analytics techniques are important members of a family of analytics often referred to as Machine Learning techniques. An important part of this course is the use of a software package called R, which is used extensively in labs and assignments in this class and subsequently reappears in other classes throughout the program.

**BUAD 5132 - Machine Learning II**

*(4) Prerequisite(s):* BUAD 5072 - Machine Learning I and BUAD 5272 - Database Management and Visualization
This course is designed to provide students with a deep understanding of Machine Learning and Big Data, including more elaborate techniques that extend the coverage from Machine Learning I. The data storage and retrieval techniques that have served the information processing industry for decades have proven inadequate in the face of the huge collections of data presently being created by the Internet and the so-called "Internet of Things." Businesses are requiring a new set of technologies that are specifically designed to deal with these huge data sets. In this course, the Hadoop environment and Amazon Web Services (AWS) will be used to process large-scale data sets.

**BUAD 5762 - Capstone Project**

*(4) Prerequisite(s):* BUAD5802 - Artificial Intelligence and BUAD 5082 - Machine Learning II
This experiential based practicum course will include a comprehensive business analytics project that the student will complete from start to finish integrating the skills that have been acquired from the previous course work in the business analytics program. They will define and frame a complex problem, develop a systematic approach to solving it using analytics, identify methodologies that are suited to the problem, quickly prototype solutions with those methodologies to identify the best approach and, ultimately, generate an innovative solution and persuasively convey that solution using data visualization techniques and communication skills.

**BUAD 5772 - Database Management and Visualization**

*(4) Prerequisite(s):* BUAD5112 - Competing Through Business Analytics
This course covers fundamental topics related to the development and use of databases and database systems and best practices for data visualization. Organizations store data in two types of databases: operational and analytical. Operational database topics include: database requirements, entity relationship modeling, relational modeling database constraints, update anomalies, normalization, Structures Query Language (SQL), and data quality. Analytical database topics include: data warehousing concepts, dimensional modeling (star schemas), data warehouse/data mart modeling approaches, the extraction/transformation/load (ETL) process, online analytical processing (OLAP)/business intelligence (BI) functionalities and the data warehouse/data mart front end. Once data is cleaned and stored, data visualization is used to most effectively communicate information contained in the data. The course covers data visualization principles drawn from the fields of statistics, perception, graphic and information design, and data mining. Students will learn visual representation techniques that increase the understanding of complex data and models. Topics include charts, tables, graphics, effective presentations, and dashboard design

### BUAD 5802 - Artificial Intelligence

*(4) Prerequisite(s):* BUAD 5072 - Machine Learning I and BUAD 5022 - Optimization and Heuristics
The theme of this course is "Natural models and Artificial Intelligence." The course considers natural models of intelligence and their artificial equivalents. The course shows how viewing natural intelligence is an effective mindset and it describes the key analytics tools required for designing and executing some business processes competently. A majority of the course is devoted to the topic of neural networks, although other methods are included, such as genetic algorithms, simulated annealing, and swarm intelligence.

## Law School Courses (LAW)

### LAW 101 - Criminal Law

*Fall 4 P. Marcus, N. Combs, A. Gershowitz, C. Ward*
An intensive study of the basic doctrines underlying the criminal law, including actus reus and mens rea; the principal substantive and inchoate crimes; the accountability for the criminal acts of others; and the general defenses to criminal liability.

### LAW 102 - Civil Procedure

*Fall 4 V. Hamilton, E. Criddle, M. Green, A. Bruhl*
This course focuses on the strategic options federal law provides to persons attempting to resolve disputes through litigation. It introduces students to basic concepts involved in the federal civil adversary system, federal jurisdiction, choice of law, and finality. Students will explore in depth the policies governing and the mechanics involved in pleading, discovery, and disposition before trial.

### LAW 107 - Torts

*Fall (3-4) E. Kades, A. Meese, S. Rajec, F. Lederer*
A survey of the legal system's responses to problems arising from personal injury and property damage. Concentration on the legal doctrines relating to liability for harm resulting from fault and to strict liability. Analysis of the goals and techniques of accident prevention and compensation for loss.

### LAW 108 - Property

*Spring 4 L. Butler, R. Rosenberg, T. McSweeney,*
Property focuses on the rules for acquiring, using, dividing (in various dimensions), and losing rights over scarce resources. Most material concerns realty, with limited consideration of person property. Property will introduce the rudiments of capture, finds, and adverse possession; landlord-tenant law; the system of estates; co-ownership; easements; and restrictive covenants. In addition to these private law subjects, the course will introduce zoning and takings.

### LAW 109 - Constitutional Law

*Spring 4 T. Grove, T. Zick, N.Devins, A. Larsen*
A study of the structure of government, from the role of the courts and the concept of judicial review, through the distribution of power in the federal system and the allocation of power among the three branches of the government, followed by a study of individual rights protected by the Constitution.

### LAW 110 - Contracts

*Spring 4 P. Alces, D. Ibrahim, J. Butler, N. Oman*
This course explores legally enforceable promises, normally exchanged as part of a bargain between private parties. Among the topics that may be covered are: bases of enforcement, capacity to contract, contract information, interpretation, conditions, excuse of performance, and remedies for breach.

**LAW 115 - Professional Responsibility**
*Fall/Spring 2 G. Huff, D. Miller, L. Lilley, L. Haley, M. Lowe*
This course will cover a variety of topics relating to lawyers' obligations as members of the legal profession, such as the duty of competence, fees and billing, creating and ending the lawyer-client relationship, the duty of confidentiality, and conflicts of interest. The class will cover both lawyer regulations (such as the Model Rules of Professional Conduct) and other ethical concerns in the practice of law.

**LAW 130 - Legal Research & Writing I**
*Fall 2 Staff*
In this course, students will develop the critical skills of legal analysis, writing, and research. Under the instruction of research librarians, students will learn to conduct thorough research using a number of different legal sources. Students will work with full-time writing professors to learn how to analyze legal rules and precedent to assess the legal position of a client or other party. With close guidance and feedback from the writing professors, students will learn how to successfully communicate legal analyses in objective legal memoranda, using clear and concise language and employing the fundamental principles of effective legal writing.

**LAW 131 - Lawyering Skills I**
*Fall 1 Staff*
In this course, students will learn various skills essential to the successful practice of law. With instruction and feedback from practicing attorneys, students will learn by preparing for, and executing, several simulations designed to ready students for what they will encounter in the day-to-day life as an attorney. These simulations include presenting an oral report to a supervising attorney, interviewing a client, and counseling a client. Prior to each simulation, students will read about and discuss the underlying doctrine, theory, and goals that are fundamental to understanding the lawyer's role. Through integrating coursework and simulations, students will also receive guidance on navigating daily practice and the importance of professional ethics.

**LAW 132 - Legal Research & Writing II**
*Spring 2 Staff*
In this course, students will continue to develop the critical skills of legal analysis, writing, and research. Under the instruction of research librarians, students will expand their knowledge of legal sources, databases, and research methods. Building on the analytical and writing skills developed in Legal Research & Writing I, students will apply their abilities in a persuasive context. With close guidance and feedback from the writing professors, students will focus on how language can be crafted to persuade instead of just inform and will learn how to draft effective legal arguments in pretrial memoranda, settlement letters, and other documents.

**LAW 133 - Lawyering Skills II**
*Spring 2 Staff*
In the second semester of Lawyering Skills, students will reinforce and build upon the skills learned in Lawyering Skills I, and apply their practical communication abilities to a new range of settings. With the instruction and feedback from practicing attorneys, students will advance their advocacy skills through simulating a pretrial oral argument and a negotiation with an opposing counsel. As in Lawyering Skills I, prior to each simulation, students will read about and discuss the underlying doctrine, theory, and goals that are fundamental to understanding the lawyer's role. Through the continued integration of coursework and simulations, students will become increasingly able to navigate daily practice and uphold professional ethics.

**LAW 135 - Lawyering Skills**

*Fall/Spring 1 J. Stevenson*

This course will assist LLM students in understanding the roles of lawyers, especially newer attorneys, in law offices in the U.S. They will learn about the professional expectations for those who work with American attorneys in private law firms and other organizations. Students will improve their oral and written communication skills through in-class exercises and simulations, including oral reports to supervisors, professional correspondence and client interviews.

**LAW 137 - Advanced Lawyering Skills**

*Fall/Spring 1 J. Stevenson*

This course will build on the knowledge and practical skills gained in Lawyering Skills (135) further to assist LL.M. students in successfully working with U.S. lawyers. In this regard, students will delve more deeply into the professional expectations and responsibilities of those who work with U.S. lawyers. Importantly, students will continue to improve their oral and written communication skills through in-class exercises, simulations and other active class participation. The foregoing will include topics related to interacting with clients, reviewing legal documents, and conducting negotiations and alternative dispute resolution exercises. Students will be graded on a number of oral and written assignments throughout the semester. The final grade will be based on performance on such assignments and class participation. Students will be graded on the following scale: Honors, Pass, and Fail.

**LAW 140A - Advanced Writing and Practice - Appellate Advocacy**

*Spring 2 Alice Armstrong*

The Appellate Advocacy course will provide in-depth instruction and practical training in appellate advocacy, emphasizing both written and oral skills. Students will learn how to prepare for an appeal, file an appeal, write effective appella briefs, and make effective appellate oral arguments. The skills involved include the ability to analyze, write, make strategic decisions, and speak effectively. Students will complete several practice writing assignments culminating in one final written brief. At the end of the semester, students will present oral arguments based on their final written brief. NOTE: Students who take Law 730 Advanced Brief Writing may NOT take this course.

**LAW 140B - Advanced Writing and Practice - Pretrial Civil Practice**

*Spring 2 Susan North*

The Pretrial Civil course is designed to introduce students to persuasive pretrial advocacy in a civil case. The course will prepare students for practice in civil litigation by focusing on the application and expansion of their legal writing skills in a civil context. Students will learn civil litigation skills through written assignments and class discussions that will expose them to some of the issues and challenges civil practitioners must address when drafting documents, motions, and briefs in the course of client representation.

**LAW 140C - Advanced Writing and Practice - Pretrial Criminal Practice**

*Spring 2 Brian Pristera*

The Pretrial Criminal course is designed to introduce students to persuasive pretrial advocacy in the criminal case. Unlike what you might see on television, criminal cases are not usually won in 22 minutes in the courtroom. Rather, the bulk of criminal litigation is handled pretrial through pleadings, discovery, witness interviews, and pretrial motions. The course will prepare students for practice in criminal law by focusing on the application and expansion of their legal writing skills in a criminal law context. Through written assignments and class discussions, students will engage in various pretrial activities found in criminal practice, which may include moving for discovery and preparing other motions and briefs for trial.

**LAW 140D - Advanced Writing and Practice - Transactional Practice**

*Fall/Spring 2 E. Park, A. Nelson*

The Transactional Practice course is designed to introduce students to several elements of transactional practice in a deal-based context. Students will learn transactional practice skills through a variety of drafting exercises and assignments designed to familiarize students with the most common issues found in drafting transactional documents. Students will encounter and draft different types of agreements used in transactional practice and will work on understanding, analyzing, and drafting critical sections of contracts. The course will stress the importance of using clear and concise writing skills to articulate agreements accurately and precisely.

**LAW 250 - Intro to US Law and Legal System**

*Summer 2 Jennifer Stevenson*

This course is designed to provide an introduction into the structure and content of the American Legal System to foreign students who have not received American law training. The course is composed of two components: 1) instruction in American Law and Legal Institutions and 2) Legal Research Training. The substantive element contains materials on the Basic Principles of American Law, the Legal Profession, the Jury System, Constitutional Law and Torts. The research portion provides a basic introduction into the modern American law library's holdings and computer-based research techniques. The course meets for a total of 15 class meetings for at least 90 minutes at each session and will be graded on a pass/fail basis.

**LAW 251 - LLM English Language Course**

*Summer 0 Jessica Klein*

This course is designed to improve the English language skills of entering international students in the LLM program or at the University.

**LAW 301 - Election Law Practicum - Lawyering a Campaign**

*Spring 1 Jason Torchinsky*

Many law school classes touch on election law subjects ranging from voting rights, to redistricting, to election law and campaign finance. This course will focus on the legal issues you will need to understand to advise a candidate. The goal of this course to help students understand the basic statutory framework that candidates must navigate. While there are state to state and jurisdiction to jurisdiction differences, the basic frameworks are well known by practitioners. Students will gain an understanding of the issues that have arisen at various stages of the candidate / election administration process and that have been presented to federal and state courts across the county.

**LAW 303 - Corporations I**

*Spring 3 Nathan Oman*

An introductory examination of the law applicable to corporations. This course examines the process of formation and capitalization of corporations, the concept of limited liability, and the role of fiduciary duties in corporate governance. We will examine how these duties are enforced in different settings (public corporations and closed corporations); under state and federal law; and some other recurring litigation and planning issues. Students who take Corporations may not take Business Associations.

**LAW 305 - Trust and Estates**

*Fall/Spring (1-4) J. Dwyer, T. McSweeney,*

A study of the law governing inter vivos and death time gratuitous transfers of property. Aspects covered include transfers under intestate succession statutes; the law of wills, including the formalities of execution, testamentary capacity, undue influence and fraud, interpretation, and revocation; non-probate transfers; the law of trusts, including methods of creation and termination, rights and interests of the

beneficiary, and special problems relating to resulting, constructive and charitable trusts; and fiduciary administration, including an introduction to probate proceedings and problems of trust administration.

**LAW 306 - Bankruptcy Survey**

*Fall (2-3) Nathan Oman*

This course will introduce students to the federal law of bankruptcy, which allows debtors to restructure and discharge their obligations to creditors. Although both consumer bankruptcy and corporate reorganization will be touched on, the course will focus on business bankruptcies under Chapter 7 and Chapter 11 of the bankruptcy code. We will not cover the adjustment of personal debts under Chapter 13. There are no prerequisites for the course.

**LAW 308 - Applied Evidence in a Technological Age**

*Fall/Spring 4 Fredric Lederer*

This four-credit course combines all of the elements of a traditional evidence course along with basic oral and trial advocacy and courtroom technology. The course will concentrate on the Federal Rules of Evidence from a pragmatic perspective. It will also address the evidentiary implications of modern electronic evidence. In addition to the study of fundamental evidentiary concepts, students will try a simple bench trial with traditional and electronic evidence using the McGlothin Courtroom's state-of-the art courtroom technology. This course is supported by the Center of Legal and Court Technology which will train students in the use of the McGlothin Courtroom's evidence presentation technology and provide clerk of court administrative support. Students who take Applied Evidence in a Technological Age may not take Law 309 Evidence. This course satisfies the Third Year Practice requirement.

**LAW 309 - Evidence**

*Fall/Spring 3 H. Zlotnick, M. Lowe*

An intensive study of the law of evidence primarily utilizing the Federal Rules of Evidence. Topics addressed by the course include relevance, authentication, real evidence, competence, heresay, impeachment of witnesses, and privileges.

**LAW 311 - Federal Income Taxation**

*Fall (3-4) William Richardson*

A study of the basic laws relating to federal income taxation of the individual. Included are problems relating to computing gross income, the reduction of gross income to taxable income, and the recognition and character of gains and losses from disposition of property.

**LAW 313 - Economic Regulation of Energy Markets**

*Fall 2 Ted Gerarden*

This course will address the principles of economic regulation of energy production, transportation, and delivery. Energy drives the economy, and the substantial investment required to produce, refine, transport, and deliver energy brings with it significant government regulation. We will focus primarily on economic regulation of energy at the Federal level, with some discussion of parallel state regulatory schemes and federal-state jurisdictional issues. The starting point is an understanding of the physical aspects of energy -the different sources of energy and the practical aspects of extraction, refining, transportation, and delivery to users-and the application of economics and antitrust law to understand the rationale for extensive federal and state regulation of energy industries. The course will consider early steps to regulate private industry for the public good, introducing students to principles of economic regulation, including dealing with natural monopolies, requiring certificates or permits for energy facilities, balancing the need for industry to attract capital with rate-payer protection through cost-of-service ratemaking, assuring "just and reasonable" rates and terms and conditions of service, preventing undue discrimination, relying on competitive market forces as a substitute for regulation (light-handed or market-based regulation), and

partial deregulation. Key Federal agencies to be examined are the Federal Energy Regulatory Commission (FERC) and the Department of Energy. We also will touch on parallel issues at the state level, efforts to diversify energy sources and reduce environmental impacts, state-federal conflicts, and enforcement programs. Grades will be determined by a mid-term legal memorandum and a final paper.

**LAW 317 - Law & Neuroscience**

*Fall (1-3) Peter Alces*

This course examines a variety of cutting-edge, at times controversial, linkages between law and neuroscience, ranging from social and environmental influences on the brain and behavior to the interpretations of neuroimaging and the prediction of criminality and predispositions towards mental illnesses and addictions. Students will learn how discoveries in neuroscience intersect with societal responses and legal decision-making. Scientists are increasingly using new techniques to investigate the brain activity underlying cognitive phenomena. The course will explore whether, and if so how, the law should engage with various emerging neuroscientific findings, technologies, and perspectives on such topics as evidentiary rules, memory bias and enhancement, lie and deception detection, the neurobiology of criminal culpability and punishment, emotions and decision making, addiction, adolescent brains and juvenile law, moral and legal reasoning, tort law, artificial intelligence, and the like. The course will also address a variety of challenging questions raised by the increasing introduction of brain scans as evidence in courtroom proceedings. A background in science may be helpful, but is not required, as the course will provide a 'brain basics' introduction for law students.

**LAW 320 - Business Associations**

*Fall 4 K. Haeberle, D. Ibrahim*

An introductory examination of the law applicable to contemporary forms of business enterprise: the general partnership, the limited partnership, the limited liability partnership (LLP), the limited liability company (LLC), and the corporation. The course begins with an introduction to the principles of agency, which govern all these forms of enterprise. The course then explores the process of organization, formation and capitalization, limits on investors personal liability, and the role of fiduciary duties in different business contexts. We will then examine how these duties are enforced under state (and some federal) law. This course is a general introduction to the field. Students who take Business Associations may not take Alternative Business Entities, or Corporations, or Small Business Entities.

**LAW 322 - State & Local Taxation**

*Spring 3 Craig Bell*

The State and Local Taxation course considers taxation imposed by states and local governments in a variety of contexts including the taxing of income, sales and use, property, and business licenses. This course will benefit students entering either a tax practice or a general business practice. Topics to be covered in the course will include: the key elements of the major business taxes and individual state income tax; the constitutional restrictions applicable to the taxation of interstate businesses; the handling of audits; and the conduct of administrative and judicial appeals. The course will use Virginia's tax system as an illustrative model for issues that are common to most jurisdictions. Students will be evaluated on the basis of their class participation and on a series of written assignments including administrative protests of hypothetical audit assessments and initial court pleadings.

**LAW 326 - Partnership Taxation**

*Spring (2-3) William Richardson Prerequisite(s):* LAW 311 - Federal Incomoe Taxation

This course is an introduction to the federal income tax treatment of partnerships, including LLCs treated as partnerships, and their owners. Topics covered will include the tax classification of business entities as partnerships, partnership formations, allocations of partnership income and losses to partners, transfers of ownership interests by partners, distributions from partnerships to partners, terminations of partnerships,

and a comparison of "S corporations" to partnerships. Prerequisite: Law 311 Federal Income Taxation Recommended: Law 320 Business Associations

**LAW 334 - Community Association Law**

*Spring 2 Elizabeth White*

This class will cover the legal structure of covenants and servitudes organizing modern community associations. The number of community associations has increased exponentially over the last two decades as local governments have increasingly looked to the private sector to provide amenities and services historically provided by such governments. In addition, these entities have become more prominent as the development focus has been on higher density housing and mixed use developments which combine commercial and residential uses in integrated planned developments. This course will consider the corporate and governance functions of community associations and the legal documents which provide the contractual framework for such governance. Coverage will include discussions of the respective roles and functions of the various parties involved in the formation, management and operation of Community Associations including local government and zoning officials, land planners, developers, investors, lenders, homeowners, boards of directors, property managers, homeowners committees and citizens groups. Class time will consist of a combination of lectures covering textbook materials and posted reading materials, discussion and consideration of posted problems corresponding to topics covered in class, role playing, and document drafting exercises.

**LAW 336 - International Intellectual Property Law**

*Spring (1-3) Sarah Rajec*

This course surveys the variety of treaties and laws governing worldwide intellectual property rights. In addition to the major multi-lateral treaties governing intellectual property rights protection, the course will compare various relevant national laws to see how different social and economic policy goals drive differences in laws governing copyrights, patents, trademarks, and related rights. International intellectual property laws have become increasingly important to companies with a global business footprint. Therefore, the course will explore business strategies in the context of this network of laws. Students will be evaluated primarily based on a final exam; there will also be a participation component.

**LAW 337 - Employee Benefits and ERISA**

*Fall (1-3) Tina Mohr*

This course will provide an overview of the area of Employee Benefit Law and the Federal law applicable to the same including ERISA, COBRA and tax law. Employee Benefit Law is a practice area of significant importance to corporations, insurance companies, labor unions, plan administrators, law firms, benefit consulting firms and employees and their family members. The course will cover employer provided benefit plans including health insurance, traditional pension and defined benefits plans such as 401(k)s, cafeteria plans and others. The course will cover topics including vesting, nondiscrimination provisions, disclosure requirements, reporting requirements, notice requirements, fiduciary rules and duties and spousal rights. The course will also examine the impact of employee benefit law as well as ERISA on other practice areas including employment law, health law, labor law, tax law, divorce, corporate mergers/acquisitions, bankruptcy and specialized litigation. There is no prerequisite for this course. The class will be graded by final exam (70%), classroom assignments (23%), and class participation (7%).

**LAW 338 - European Union Law & Human Rights**

*Fall (1-3) Javier Guillen*

Human rights, democracy and the rule of law are core values of the European Union. Embedded in its founding treaty, they were reinforced when the EU adopted the Charter of Fundamental Rights in 2000, and strengthened still further when the Charter became legally binding with the entry into force of the

Lisbon Treaty in 2009. In this course, after a brief introduction of European integration, the course provides a general approach of the framework and functioning of the legal system of the European Union, introducing a general study on the decision-making process, the distribution of power between member states and the EU, and the principles that govern the relationship between the legal systems of the EU and its member states. Then the course will focus its attention on the human rights policy developed by the EU in the last years. We will study this main policy looking at the European Court of Justice leading cases on this subject and at the same time we will cover the main case law of the European Court of Human Rights reviewing EU Law and the interaction between both European Courts of Justice.

**LAW 339 - Natural Resources Law**

*Spring (2-3) Michael Walker*

The course provides an introduction to federal natural resources law, with an emphasis on living resources. We will examine the theoretical conflicts that underlie various approaches to resource management, as well as the special qualities of natural resource problems that render management efforts difficult. Focusing on the legal treatment of fisheries and marine mammals, wildlife and biodiversity, water resources, forests and preserved public lands, we will probe the complex interplay between environmental, economic, cultural, and political factors in natural resource decision making. Note: this class does not meet every year.

**LAW 348 - Privacy Law**

*Spring 3 Rebecca Green*

Should the NSA tap Americans' phone calls? Should Target be liable to consumers for data breaches? What if Snapchat doesn't really delete images but stores them--should users have recourse? Given modern technological realities, is privacy dead? This course will review the historical roots of the concept of privacy in U.S. law, the common clash between privacy and the public good, and the shifting balance of privacy rights in rapidly changing technological contexts. We will aim to understand privacy's place amidst the swirl of commercial and national security interests and the rise of the global Internet. Grades will be determined by class participation and a final exam.

**LAW 351 - Alternative Dispute Resolution Survey**

*Spring (2-3) Rebecca Green*

Knowledge about the various alternative processes of dispute resolution, as well as the law of ADR is quickly becoming indispensable to the civil legal practice of law. This survey course will introduce students to the important legal principles and issues posed by the growing use of ADR within the legal system. Further, the course will focus on the different types of alternative processes available to lawyers, with the goal of recognizing that conflict can present opportunities for significant change and growth that will enable lawyers to more adequately represent the interests of their clients.

**LAW 352 - Private Equity - Structure and Issues**

*Spring (1-3) Jody Forsyth*

This course will provide an overview of the common legal structures employed in the formation, capitalization, compensation, and governance of private equity funds. We will study as an example the structure of an existing private equity fund operating in the Canadian real asset space. In particular, we will spend considerable time on contractual interpretation of the fund's limited partnership agreement. This course will also explore a number of topical issues in private equity, most notably securities regulatory oversight of private equity managers and taxation of their compensation. In examining all of the foregoing, we will consider the extent to which legislators and public regulators should oversee and intervene in private contractual relationships. An understanding of basic income tax law will be helpful but not required for this course. This course will be graded by a final exam.

**LAW 358 - Electronic Discovery**

*Fall/Spring (1-2) Andrea D'Ambra*

With computers and mobile devices, such as smartphones and tablets, dominating every aspect of business and personal life, the nature of civil discovery has changed. Lawyers need to know how to request, identify, preserve, collect, process, review and produce electronically stored information ("ESI") in all its myriad forms. This course helps students identify and avoid signficant pitfalls arising from the collection, processing and production of ESI to better represent their clients. Law students will learn about the nuances of the quickly evolving world of e-discovery and gain practical skills they can utilize immediately upon entering the legal profession. This class does not require a technical degree or even significant technical proficiency. NOTE; students may not register for this course if they are currently registered for, or successfully completed, Electronic Discovery and Data Seizure, LAW 310.

**LAW 362 - Education Law**

*Fall 3 Vivian Hamilton*

An examination of principles of school law by use, in part, of the care study approach. Legal foundations of public and non-public schools are studied with consideration given to the Virginia School code. Basic legal principles and guidelines for assisting teachers, administrators and professional support personnel are developed.

**LAW 366 - Civil Litigation Responses to Acts of Intl Terrorism**

*Spring 1 Steven Perles*

This course will examine important cases in the field of Foreign Sovereign Immunities Act and Anti-Terrorism Act litigation and other areas involving claims against or the defense of foreign governments before United States federal courts and administrative agencies. Students will consider litigation involving Holocaust survivors, victims of the regime of the Islamic Republic of Iran, victims of Hamas suicide bombings and other incidents of terrorism sponsored by foreign states or aided and abetted by international banks. Discussion will focus on the practical implications and challenges of pursuing civil remedies, the enforcement of outstanding judgments and the intersection of such efforts with U.S. foreign policy concerns. Students will be required to write a 10-15 page paper due after the conclusion of the course. 1 credit (pass/fail).

**LAW 367 - Oil and Gas and Energy Economics**

*Spring 2 Michael Cuda*

This course is designed to assist students to develop a practical understanding of oil and gas issues. To achieve this understanding on the legal side, the course will focus on private property and contract law concepts specific to oil and gas development, terminology that is unique to the industry and the oil and gas lease, the document that generally governs the relationship between the mineral interest owner and the mineral developer. On the practical front, students will be introduced to the business side of the industry including oil and gas development, transportation and refining as well as domestic and global market considerations. Approximately half of the class sessions will be taught in person by the instructor, while approximately half will be taught remotely.

**LAW 369 - The Wire - Crime, Law & Policy**

*Spring 2 Adam Gershowitz*

This course explores legal and policy issues raised by David Simon's critically acclaimed HBO series The Wire. Among the topics explored will be wiretapping, confessions, search and seizure, sentencing law, police manipulation of crime statistics, race and the criminal justice system. In addition to class participation, grades will be determined based on a final paper due the last day of class. The class materials will include all five seasons of The Wire as well as cases, law review articles, public policy papers, book excerpts, and statutes. Before enrolling in this course, please be advised that (1) The Wire

contains a considerable amount of violence and offensive language, and (2) this course will require you to invest a significant amount of time before the semester begins because all students must watch the first two seasons of the show in advance of the first class.

**LAW 370 - Food and Drug Law**

*Fall (2-3) Stacy Kern-Scheerer*

This course will examine the ways in which Congress, the Food and Drug Administration, and the courts have gone about regulating the food and drug industries. We will highlight current issues which may include the FDA's jurisdiction and enforcement authority concerning dietary supplements; the regulation of food additives; food labeling; the implications of globalism in the pharmaceutical industry; "orphan drugs;" and the relationship between federal regulation and state law. The course will be graded on the basis of in-class participation and a final examination.

**LAW 371 - Complex Transactions in Regulated Industries**

*Spring 1 David Sella-Villa*

Complicated business transactions occur in numerous regulated industries. For our course, we will focus on aviation and will explore transactions in the aviation industry. After providing a general overview of the international and domestic regulatory structures in commercial and private aviation, the course will then use an aircraft purchase to introduce students to specific applications of aviation regulations and the laws of contract, insurance, finance, security interests, tax, and civil procedure in the aviation industry. The focus will be a practical application of legal principles in the context of complex transactions within a regulatory framework. This course will be graded pass/fail. Students will be given a fact pattern and will draft an aircraft purchase agreement.

**LAW 378 - Selected Topics in Con Law**

This course is a one credit, one-week, intensive review of recent constitutional developments in the field of constitutional federalism. Specifically, the course would examine the following three areas each taken from very recent decisions of the U.S. Supreme Court: 1) The "Obamacare" case (the scope of national enumerated powers), National Federation of Independent Business v. Sebelius, 2) the Gun Control Law cases ("the Second Amendment...the right to keep and bear arms") of Heller v. District of Columbia and McDonald v. City of Chicago and 3) the Arizona "illegal immigrant" case of Arizona v. United States (the scope of national enumerated powers, and the tenth and fourteenth amendments). These three current topics and the several edited principal cases (to be supplemented with accessible references to subsequent lower court decisions) will be discussed in this one week long mini course. A short paper will be required of each student

This course satisfies the writing requirement.

**LAW 380 - Comparative Law**

*Spring 3 Christie Warren*

This course introduces and compares sources of law, underlying values and goals, and applications of the major legal traditions of the world, including civil law, common law, Islamic law, Talmudic law, customary law, and Asian legal systems as they originally developed and as they are evolving and changing in the world today. Course satisfies the Major Paper Requirement.

This course satisfies the writing requirement.

**LAW 381 - International Election Principles**

*Spring (1-3) John Young*

The purpose of this course is to examine international election standards based on the rule of law. The ultimate goal is to establish knowledgeable, predictable, rule-based decision-making that limits the power entrusted to government officials, while concurrently encouraging the widest development of democratic

systems. The course will cover each step in the electoral process: (1) recognition of political parties and which candidates will be qualified to stand for election; (2) voter registration including registration, maintenance of lists, grounds for suspension and reinstatement; (3) absentee ballots, if they are to be used, as well as the procedures for their issuance and as to their counting;(4) early voting and remote voting if it is accepted as a means of increasing participation; (5) ballots, ballots design, machinery, pre-vote verification, the observation of that process so that it is transparent, ballot collection, computerized and other mechanical voting systems, ballot audits, physical security, and the availability of election day remedies; (6) verification of who is, and is not, a voter; (7) the conduct of the election itself, including how officials are trained and qualified; (8) the process for recounts; (9) the process for challenges and contests; and, (10) administration and supervision applying objective standards. Each of these steps will involve the class in a discussion of the development of concrete standards for the international community to apply in the election process. Pass/Fail

**LAW 382 - Human Rights Law**

*Spring (2-3) Nancy Combs*

This course will cover fundamental international human rights law. It will address the sources of international law, United Nations human rights instruments, domestic jurisdiction, organizations for enforcement for human rights law, non-governmental organizations that promote human rights enforcement, and current issues in human rights law.

**LAW 385 - International Criminal Law**

*Fall (1-3) Nancy Combs*

Nancy Combs

**LAW 393 - Campaign Finance**

*Spring (1-3) Neil Reiff*

The purpose of this course is to provide an overview and in depth understanding of the finance system at the federal and state levels. This will be accomplished through the analysis of the Federal Election Campaign Act or 1971 as amended (FECA) including extensive analysis of the Bipartisan Campaign Reform Act of 2002 (BCRA). The course will provide a guide to the practice of campaign finance law from a practitioner's perspective. The course will be a thorough review of federal law as it applies to the entities that it affects, including candidates, party committees, PACs, 527's, corporations, non-profit organizations and individuals. The course will emphasize a practical preparation for the practice of law in this area through the review of case law, regulatory trends, as well as a review of the institutions that regulate campaign finance law. Students will be encouraged to follow current developments in campaign finance law during the course and should expect broad discussion about the practical, policy and political aspects of the practice of campaign finance law.

**LAW 397 - Virginia Criminal Procedure**

*Fall 3 William Shaw*

A review of the Virginia statutes and Rules of Court governing criminal procedure in Virginia's courts. Covers Va. Code Title 19.2, Rules of the Supreme Court of Virginia affecting criminal and traffic litigation and a large number of cases interpreting the statutes and rules. The course also lightly covers appellate procedure for criminal cases. Some of the topics covered are jurisdiction, venue, pre-trial motions and procedures, competency and insanity issues, trial, sentencing and appeals. It is not a constitutional law course but there is discussion of how state statutes and rules mesh with constitutional requirements. Course is structured for students who wish to do criminal litigation, either as defense counsel or prosecutor in Virginia. This course is open to 2L and 3L students. Either having completed or being enrolled in Criminal Procedure I & II is helpful, but not required.

**LAW 398 - Election Law**

*Fall 3 Rebecca Green*

This course will examine the laws that govern the political process in the United States. Topics will include the right to vote, political representation, election administration, political parties, ballot initiatives, and campaign finance. The goal of the course is to provide students with a solid foundation in the basic principles of election law in this country.

**LAW 400 - The First Amendment - Free Speech & Press**

*Fall (3-4) Timothy Zick*

This 3-credit course will examine in depth the First Amendment's guarantees of freedom of speech, press, and association. We will discuss First Amendment theories or justifications; the regulation of various categories of expression including incitement to unlawful action, threats, libel, child pornography, commercial speech, and obscenity; and content-neutral restrictions including limits on symbolic content (e.g., draft card burning, flag desecration, and nude dancing). The course will cover application of the First Amendment to government while acting in special capacities, including employer, educator, landlord, subsidizer/speaker, regulator of the airwaves, regulator of the Bar, controller of the military, prison warden, and regulator of immigration. The course will also cover certain ancillary First Amendment rights, including the right not to speak and the right of expressive association. Finally, we will examine the 'press' and newsgathering rights.

**LAW 401 - Criminal Procedure I**

*Spring 3 P. Marcus, J. Bellin*

An in-depth study of the Fourth, Fifth and Sixth Amendments to the Constitution including criminal procedure. Considered are general due process concepts; the right to counsel; arrest, search and seizure; police interrogation and confessions; identification procedures; and the scope and administration of the exclusionary rules.

**LAW 402 - Criminal Procedure II**

*Fall 3 Tommy Miller*

A study of the constitutional and non-constitutional procedural components of the criminal process. Included are discretionary aspects of the decision to charge; the preliminary hearing; pre-trial release; grand jury proceedings; venue; jury selection; trial procedures; sentencing; double jeopardy; appeals, and post-conviction proceedings. Criminal Procedure I is not a prerequisite.

**LAW 404 - Secured Transactions**

*Fall 3 Michele Spike*

A study of Article 9 of the Uniform Commercial Code governing security interests in personal property and fixtures.

**LAW 405 - Law Firm Leadership**

*Fall 1 Gary LeClair*

The course will introduce students to the law firm leader's role in six major leadership functions: (i) Culture and Strategy, (ii) Governance and Execution, (iii) Compensation and Financial Management, (iv) Talent/Leader Recruitment, Development, Promotion and Accountability/Reward, (v) Practice Management and Business Development, and (vi) Risk Management and Industry Challenges. Course materials will include the writings of prominent law industry commentators (e.g., William Henderson, Gillian Hadfield, David Maister, etc.) and general business thought leaders (e.g., Larry Bossidy, Robert Kelly, Sonja Lyubomirsky, etc.). Students will be given the opportunity to engage in leader self assessments (e.g., GRIT, introvert-ambivert-extrovert, positivity, etc.) and will be exposed to law firm leader skills (e.g., framing, challenge response competency, mistake imperative, etc.) The course will be

pass-fail and graded primarily by a paper on a topic chosen from 12 leader dilemmas (2 from each of each of the 6 functions).

**LAW 407 - Labor Law**

*Fall (1-3) Gregory Giordano*

A study of employee-union-management relations as regulated by the National Labor Relations Act, as amended. Issues considered include the organizational process, representation elections, collective bargaining and picketing activities.

**LAW 408 - Insurance**

*Spring 2 Robert Friedman*

This course will survey the fundamental legal principles governing selected kinds of insurance including: automobile, fire and property (homeowners), liability, life, health, and disability. Among the topics examined will be the formation and operation of the insurance contract, coverage and exclusions, insurable interest, the claims process and subrogation. A practical approach will be featured, placing students in the roles of attorneys for the insurer, insured and third party claimant as issues are discussed.

**LAW 409 - Public International Law**

*Spring 3 Evan Criddle*

This survey course introduces students to the basic subjects, processes, and problems of contemporary international law. The course begins with an exploration of the nature and sources of international law; the traditional role of states in international law formation; and the burgeoning role of international organizations and nongovernmental organizations in transnational legal processes. Attention then shifts to the relationship between international law and U.S. law, including the principles that govern (and impede) the application of international law in the United States. The course devotes sustained attention to several important subfields of international law, including principles of international jurisdiction, sovereign rights to natural resources, international human rights, international criminal law, and the laws of war. Along the way, class members are invited to grapple with several enduring critiques of the international legal system.

**LAW 410 - Conflict of Laws**

*Spring (2-3) Michael Green*

How the courts of a state address the fact that other states and nations, with their own laws, exist. The primary focus is choice of law--which state's or nation's law should apply to a case with multi-jurisdictional elements. Also covered will be the constitutional restrictions on choice of law and state court recognition of sister state judgments. Other possible topics are: the extraterritorial application of federal (including constitutional) law, state and federal court recognition of the judgments of foreign nations, and conflicts between federal and state law, including the Erie doctrine.

**LAW 411 - Antitrust**

*Spring 3 Alan Meese*

A study of restraints of trade, mergers and monopolies. The central concern of the course is to analyze what laws are necessary to protect a system in which goods are allocated by competitive markets.

**LAW 413 - Remedies**

*Spring 3 David Lannetti*

This course involves a study of the law of judicial remedies, both legal and equitable, and focuses on the nature and scope of available relief. The course emphasizes the various remedies available, including compensatory and punitive damages, injunctions, declaratory judgments, restitution, and enforcement proceedings. It provides a brief study of the development of chancery courts and the continuing

distinction between equitable and legal remedies. Special attention is given to the appropriateness of various remedies to given situations. Substantive examples will come primarily from contract and tort law, but property interests, statutory violations, and constitutional harms also will be discussed.

**LAW 414 - Cybersecurity Law**

*Fall 2 Holly Brady*

This course will explore Cybersecurity Law, a relatively new and dynamic area of law. The course will begin with a discussion of how the lawyer's role is evolving as cybersecurity risk becomes an increasingly significant area of focus for business executives, law makers, and regulators. Throughout the course, we will examine a variety of legislative, regulatory, and litigation issues. We will explore novel applications of long-standing legal tenets, such as Article III standing, the attorney-client privilege, and the reasonableness standard. We will look at the anatomy of a data breach and discuss complex issues that arise in data breaches. We will also explore the intersection of Cybersecurity and Privacy and discuss how Cybersecurity is a necessary component of Privacy, but how Cybersecurity interests can also come into conflict with Privacy interests. Although we will cover certain technical aspects of Cybersecurity, such as the protection of a computer network, no prior technical experience is required. Grades will be determined primarily by a final paper.

**LAW 415 - The Federal Courts**

*Spring (1-3) Tara Grove*

An examination of the federal judicial system encompassing such topics as allocation of federal judicial power; original jurisdiction of the Supreme Court; the Eleventh Amendment; suits in federal court against state officials; restrictions on federal adjudication of state-created rights; federal question jurisdiction and federal common law.

**LAW 416 - Family Law**

*Spring 3 James Dwyer*

This course covers requisites for marriage, pre-nuptials, paternity, property management during marriage, spousal abuse, parental child rearing rights, grounds for divorce, property distribution upon divorce, consequences of cohabitation prior to marriage, alimony, child support, and child custody and visitation.

**LAW 417 - International & Comparative Women's Rights**

*Fall 3 Linda Malone*

An international and comparative law framework for women's human rights by analyzing rights and remedies afforded women under international human rights law, including the Convention on the Elimination of All Forms of Discrimination against Women, the International Covenant on Civil and Political Rights, the European and American Convention on Human Rights, the African Charter on Human and People's Rights, and the EEC's Equal Treatment Directive. The course also compares different legal systems' responses to domestic violence, female genital mutilation, polygamy, reproductive rights, parental leave, employment discrimination, pay equity, and other gender-related issues.

**LAW 419 - Virginia Civil Procedure**

*Spring (3-4) J Zepkin Prerequisite(s):* Third year status

Covers procedural law for both law and equitable claims, including applicable statutes, rules of court and cases interpreting the statutes and rules. Appellate procedure for both the Court of Appeals of Virginia and the Supreme Court of Virginia are covered. Prerequisite: Third year status

**LAW 420 - Real Estate Transactions**

*Fall (2-3) Ronald Rosenberg*

This course will deal with residential and commercial real estate transactions both from a practical and a

theoretical perspective. The course will cover purchase and sale agreements, deeds, recording acts, financing, residential and commercial leases and real estate development. Class discussion will focus on both the analysis of case decisions and practical aspects of real estate law.

**LAW 422 - Accounting and Finance for Lawyers**

*Spring (2-3) Eric Chason*

This course provides an introduction to accounting and finance for students who have had little or no coursework in either area. Accounting topics include the balance sheet, the income statement, the statement of cash flows, and financial-statement analysis. Finance topics include risk, return, time, value of money, valuation, financial instruments, and capital markets. All topics will emphasize implications for the legal profession. The following students are ineligible to take the course without permission of the instructor. - Students who have completed three or more undergraduate-level courses in accounting and finance (counted on a combined basis). For example, a student with two accounting courses and one finance course is ineligible. - Students who have completed any graduate-level course in either accounting or finance (including Law 437 Corporate Finance). - Students who are enrolled in the joint JD / MBA program.

**LAW 423 - Securities Regulation**

*Spring (2-3) Darian Ibrahim Prerequisite(s):* LAW 303 OR LAW 320

This course studies the disclosure philosophy of the federal securities laws and the nature and regulation of the securities markets. The relevant statutes are the Securities Act of 1933 and the Securities Exchange Act of 1934, primarily, as well as changes brought by recent legislation including the JOBS Act. Among the topics covered are the initial public offering (IPO) process and exemptions from registration under the 1933 Act; we also study the mandatory disclosure regime for public companies under the 1934 Act. Civil liabilities under both the 1933 and 1934 Acts are also explored. The course also studies the economics of the disclosure and liability rules and the workings of an efficient market. Prerequisite: Law 303 Corporations I or Law 320 Business Associations.

**LAW 424 - Environmental Law**

*Fall (2-3) Gregory Wall*

A study of the nature and causes of environmental pollution and of the main legal techniques for its control. The course will consider the common law, the environmental impact assessment process (e.g., the National Environmental Policy Act), and the basic regulatory framework for air, water and solid and hazardous waste control (the Federal Clean Air Act, Clean Water Act and Resource Conservation and Recovery Act), with attention given under each statute to the basic regulatory framework and the main policy issues presented by it.

**LAW 425 - Land Use Control**

*Fall (1-3) Lynda Butler*

An analysis of the legal principles governing the use and management of land and the fundamental values underlying those principles. While focusing primarily on government regulation of land use, the course also will examine common law rules which affect the way that land is used. Topics that might be considered include judicial control of land use, zoning and the rights of landowners, zoning and the rights of neighbors, land use planning, public regulation of land development, aesthetic regulation, and the preservation of natural and historic resources.

**LAW 426 - Energy Law**

*Spring (2-3) Cliona Robb*

Energy law is at the forefront of developments in natural resources law, public utility law, and environmental law. Policy debates are shaping these developments at the local, state, federal, and

international level, giving energy lawyers a real opportunity to influence the world we live in. This course covers the laws and policies that govern the exploitation of energy resources and the production and distribution of electricity. Course coverage begins with traditional principles of utility law and regulation (including rate regulation) and progresses to focus on laws and policies relating to natural gas and electricity. The main focus will be on energy law issues that arise in the context of one major energy-producing activity-the production and use of electric power-with some limited attention to parallel themes in other areas such as natural gas and transportation. We will explore general legal issues in these areas: the role and regulation of markets, the tension between economic and environmental regulation, the degree of national versus decentralized regulation, and the roles law might play in impacting not only supply but also consumer behavior.

**LAW 435 - Sales**

*Fall 3 Peter Alces*

This course deals with commercial and consumer sales transactions governed by Article 2 of the Uniform Commercial Code. Coverage includes: contract formation and readjustment; general obligations of the buyer and seller; contract performance; risk of loss; warranties; breach, repudiation and excuse; remedies; and federal legislation affecting these issues.

**LAW 438 - Corporate Taxation**

*Fall 3 William Richardson Prerequisite(s):* LAW 311

This course is an introduction to the federal income taxation of corporations and their shareholders. Topics covered will include the tax classification of business entities, incorporation and capital structure, taxable and non-taxable dividends, stock redemptions, corporate liquidations, corporate reorganizations, and an overview of "S corporations". Prerequisite: Law 311 Federal Income Tax Recommended: Law 303 Corporations or Law 320 Business Associations.

**LAW 440 - White Collar Crime**

*Spring (1-3) Brian Samuels*

Topics covered include RICO, mail fraud, tax fraud, bank secrecy and currency reporting offenses, false statements, forfeiture statutes, and selected procedural problems in the prosecution of white collar crimes, including privilege against self-incrimination issues, attorney-client privilege issues, and double jeopardy issues arising from duplicative state and federal prosecution.

**LAW 441 - Admiralty Law**

*Fall (2-3) Christopher Abel*

A comprehensive survey of contemporary maritime law. Topics to be addressed include admiralty jurisdiction and procedure, the creation and enforcement of maritime liens, limitation of liability, maritime contracts, ship mortgage law, marine insurance contracts and principles, bills of lading, general average, and other maritime cargo issues, pilotage, towing, salvage, the law of seaman's injury and death, mariner's licensure, dealing with the modern piracy challenge, and an introduction to maritime environmental law. The course will have a practical focus, emphasizing legal concepts and practice tips of particular use to counsel representing ship owners, operators, seamen, marine insurance carriers, cargo interests, and others on a day-to-day basis.

**LAW 442 - Trademark Law**

*Spring (2-3) Laura Heymann*

An overview of federal trademark law and policy, including the acquisition and loss of trademark rights, the trademark registration process, issues relating to scope and enforcement of rights across geographic boundaries, trademark infringement and dilution, lawful unauthorized use, and remedies. Related issues such as federal false advertising law and state right of publicity law may be considered.

**LAW 444 - Law & Literature**

*Fall/Spring 1 J. Heller, S. Haines*

This course explores the ways in which law and literature intersect in addressing various issues. Students will read and write papers on fiction and non-fiction (books to be determined each term) to examine how legal texts and the legal system affect individuals, society, and culture. Students will submit a response paper prior to each class meeting, focusing on the assigned primary text, in preparation for discussion of the readings. This class will be graded pass/fail.

**LAW 447 - Patent Law**

*Spring (3-4) Sarah Rajec*

The course will present the essential principles of the patent law, as well as significant policy considerations which are the basis for many patent doctrines. Highlighted will be decisions of the Supreme Court and the Court of Appeals for the Federal Circuit.

**LAW 448 - Intellect Property**

*Spring (2-3) James Stern*

A review of the legal protection of artistic, technical and business creativity through the law of copyrights, trademarks, patents and trade secrets.

**LAW 450 - Philosophy of Law**

*Spring 3 Michael Green*

A survey of problems generated by philosophical reflection on the law. The central topic will be the fundamental nature of the law. Is the law reducible to social facts? To morality? To neither of these things? But other topics will also be dealt with, including: the structure of legal systems, the nature and possibility of authority, whether there is a moral duty to obey the law, the status of international law, the lawmaking role of courts, and the effect of semantic and moral theories on adjudication. Classics in the field - including John Austin, H.L.A. Hart, Hans Kelsen, Ronald Dworkin, Joseph Raz and the American Legal Realists - will be discussed, as will arguments by some more recent writers.
Students can choose to have this course satisfy the writing requirement or not.

**LAW 451 - Products Liability**

*Spring 3 John Epps*

This course will focus on the development of the theories of liability for personal injuries and property damage caused by defective products. Among the areas to be considered are the roles of warranty, negligence and strict liability law in today's products liability litigation, as well as important related issues such as expert testimony, causation proof, the role of science, and the effects of mass tort litigation.

**LAW 452 - Employment Discrimination**

*Fall (1-3) Dawn Merkle*

This course surveys the laws prohibiting discrimination in employment. In particular, the course emphasizes case law under Title VII of the 1964 Civil Rights Act (race, religion, sex, or national origin), the Age Discrimination in Employment Act, and the Americans with Disabilities Act. Students will learn the basic doctrinal frameworks applicable to disparate treatment, disparate impact, and mixed-motives cases and trace their evolution through statutes and judicial decisions. The course also will include brief overviews of remedies for and economic theories of employment discrimination. Employment Law (LAW 456) is not a prerequisite.

**LAW 453 - Administrative Law**

*Fall/Spring 3 Allison Larsen*

Administrative law establishes the legal controls over the operation of government and hence it relates to

almost every legal practice, from security regulation to social programs to criminal justice. Indeed, administrative law is essential to justice in a modern society because administrative agencies generate most of the law that actually affects our lives and because administrative agencies adjudicate far more disputes than the traditional judiciary. This course is an introductory examination of the rules and procedures governing agency decision making. It explores (1) how agencies make policy and (2) how businesses, interest groups, and citizens challenge agency policymaking in court.

**LAW 454 - Economic Analysis of the Law**

*Spring 3 Alan Meese*

A study of the many applications of economic reasoning to problems of law and public policy including economic regulation of business; antitrust enforcement; and more basic areas such as property rights, tort and contract law and remedies, and civil or criminal procedures. No particular background in economics is required; relevant economic concepts will be developed through analysis of various legal applications.

**LAW 456 - Employment Law**

*Spring 3 Christopher Abel*

This course will address the basic common law and contemporary statutes governing the employment relationship, with an emphasis on their practical application in today's private-sector workplace. Topics to be addressed will include establishment of the employment relationship, wage and hour regulation, conditions of employment, discharge and termination, and non-competition and other post-employment obligations. The course will also include a brief review of unemployment compensation and workplace health and safety issues, as well as an introduction to employment discrimination law. This course will not address traditional labor law nor will it cover issues unique to public-sector employment. Neither will it significantly overlap the Law 452 Employment Discrimination course.

**LAW 458 - Health Law and Policy**

*Spring 3 Stacy Kern-Scheerer*

This class will give students an overview of the U.S. health care system. We will examine various legal and policy issues related to the health care system, including: the legal structure of the patient-physician relationship; how our legal system addresses issues of quality and choice; structures and mechanisms of the Affordable Care Act; Federal-State tensions regarding insurance regulation; how our legal system regulates the behavior of medical professionals and institutions; and patient privacy and confidentiality. Students will develop an understanding of the trajectory that the U.S. health care system has taken in these areas, as well as the current reforms implicating them. In addition, we will examine laws and policies that surround issues of public health, such as vaccines, obesity rates, and State-mandated screenings and data collection.
Students can choose to have this course satisfy the writing requirement or not.

**LAW 464 - Mergers & Acquisitions**

*Fall (1-3) Louanna Heuhsen*

A survey of various forms of business combination transactions, including mergers, share exchanges, tender offers and asset purchases. This course will focus on planning for and structuring such transactions to address business, corporate law and securities law issues from the standpoints of both the acquiring company and the target company.

**LAW 465 - Copyright Law**

*Spring (2-3) Laura Heymann*

A study of the Copyright Act, with coverage of the subject matter of copyright, copyright ownership and transfers, the nature of copyright rights, copyright infringement, remedies, and First Amendment considerations.

**LAW 472 - Medical Malpractice Trial Advocacy**

*Spring (2-3) Rodney Adams*

This class will examine the unique area of tort law that is commonly litigated in the U.S. The initial weeks of the course will cover the essential elements of a medical malpractice claim giving special attention to the specific statutes governing this kind of lawsuit. Students will then apply trial advocacy skills to a hypothetical medical malpractice case. Using a fact pattern from a wrongful death action recently tried in Virginia, students will plan and participate in written discovery, depositions, pretrial motions and trial. This will include witness preparation, juror selection, opening statements, direct and cross examinations, and closing arguments. All aspects of taking a medical malpractice claim from the filing stage to jury verdict will be addressed. VCU and local physicians volunteer as defendants and expert witnesses. You will not have a more realistic trial experience! The last class (mandatory) will be a day-long jury trial.

**LAW 473 - Non-Profit Law Practice**

*Spring (2-3) Tina Mohr*

Nonprofit organizations are an influential and significant sector in America. They range from small volunteer organizations to large corporations. This course will concentrate on understanding the unique tax and legal concepts applicable to non-profit organizations as well as the practical procedures utilized in forming a nonprofit, operating and governing a successful nonprofit, dealing with nonprofit tax, business and fundraising issues, understanding the state and federal regulation of nonprofits and, finally, effectuating the merger or dissolution of a nonprofit organization. The principal objective on this course is to introduce the law student to the world of nonprofit law so that as a lawyer, he or she can be prepared for an active role in establishing, advising, serving on the board or even working as in-house counsel for a nonprofit organization. Classes will be a combination of lectures, discussions, preparation of documents, group problem solving, and evaluation of solutions to actual practice queries. Grading criteria for the course will include participation, assignment and project/memo preparation, and a final examination. Regular attendance is required.

**LAW 475 - National Security Law**

*Fall (2-3) David Novak*

The National Security Law course will focus on the prosecution of national security offenses (e.g., terrorism, espionage and piracy) and the unique issues that arise during the litigation of such cases. In addition to examining the substantive statutes for the offenses, the course will address jurisdictional and venue provisions and the acquisition of evidence both domestically and overseas for these prosecutions. In doing so, the application of Miranda, the Confrontation Clause and other constitutional rights in the national security context will be examined. Particular emphasis will be given to the handling of classified information and its use pursuant to the Classified Information Procedures Act (CIPA). Finally, the course will explore the ability of the Article III courts to handle national security prosecutions in contrast to military tribunals. Grades will be based on a final examination, graded by anonymous number (although class participation will also be considered).

**LAW 477 - Section 1983 Litigation**

*Fall (1-3) John Gibney*

The course will focus on litigation under 42 U.S.C. section 1983 - the statute most commonly used to protect Americans' constitutional rights. Topics covered will include the history of the statute, the categories of defendants who can be sued under the statute, theories of liability, available remedies, defenses to suits, immunity from suit, and awards of attorneys' fees. The course will also cover the relationship between substantive rights and the litigation tools provided by the Federal Rules of Civil Procedure. The course will explore the major Supreme Court cases that define the principles of section 1983, and each week the class will discuss how the principles apply to actual cases that have arisen and been litigated in Virginia. Students will be graded based on a short paper (approximately five pages)

prepared in the middle of the semester, and a longer brief in support of a motion for summary judgment based on facts provided to the students. Students will also be expected to work in teams to address specific legal issues and present their analysis in class.

**LAW 480 - First Amendment - The Religion Clauses**

*Spring 3 Timothy Zick*

In this course we will study the First Amendment's religion clauses - the Free Exercise clause and the Establishment Clause. The core of the course examines how government interacts with religion, and the interplay between free exercise and establishment, in three key areas: government regulation of religious activity and institutions, government funding of religious activity and institutions, and governmental attempts to promote a common culture or political ethos. Our primary focus will be on current First Amendment doctrines concerning religion. Time permitting, we may also examine the intersection between the religion clauses and the First Amendment's Free Speech Clause.

**LAW 485 - Immigration & Citizenship**

*Fall (2-3) Lauren Vogt*

This course will examine federal immigration law and policy. Topics include citizenship, admissions, deportation, an introduction to refugee law, and the role of the courts in reviewing the actions of executive officials. We will examine the history of immigration to the United States, the constitutional rights of non-citizens, the federal agencies that administer the immigration and citizenship laws, undocumented immigration, and the balance between national security and openness to non-citizens. This class will meet 10 times during the semester. Meeting dates will be announced by the first day of class.

**LAW 488 - Youth Law**

*Fall 3 James Dwyer*

This course covers child abuse and neglect, adoption, legal representation of children, emancipation, status offenses, delinquency, trial of minors as adults, and the constitutional rights of youths. There is no exam for this course. Students will write a research paper on a topic of their choice. This course is offered every other year.

**LAW 496 - International Business Transactions**

*Fall (2-3) Jay Butler*

This course will survey a variety of laws that U.S. companies contend with when doing business overseas. Areas may include corporate law and securities regulation, commercial sales, employment discrimination, human rights, anti-corruption, intellectual property, dispute resolution, and various dimensions of international trade law. It will have both a doctrinal and a practical component. The course will be graded on the basis of in-class participation and a final examination.

**LAW 499 - Intl Dispute Resolution-Intl Commercial Arbitration**

*Fall 3 Iria Giuffrida*

International arbitration has established itself as a distinct field of law in academia and legal practice, and this course prepares participants to understand the resolution of transnational commercial disputes by combining the substantive legal framework with a practitioner's perspective and experience. After an introduction to the broad field of international arbitration (including references to investment treaty arbitration and inter-State arbitration), the course will focus on arbitrating commercial disputes, with a strong emphasis on institutional international arbitration. The participants will be exposed to the key main topics in this field such as the agreement to arbitrate; the selection, appointment and role of the arbitrators; questions of jurisdiction; key procedural aspects of arbitral proceedings; and the arbitral award. This course is aimed at JD and LLM students interested in developing a sound understanding of how transnational disputes are resolved by way of arbitration as well as an appreciation of the legal

environment which facilitates and supports this process. It is similarly recommended to students who are keen to develop a full-rounded picture of international business transactions. Attendance is mandatory and the course will be graded on the basis of in-class participation and a final examination.

**LAW 502 - Legislative Redistricting w/Geographic Information Systems**

*Fall 1 Rebecca Green*

With the 2020 Census on the near horizon, significant attention will be placed on redistricting in the coming years. Inherent in any redistricting plan is a recognition of the spatial configuration of voting districts and the processes driving proposed voting district maps. Federal and state constitutions and statutes impose legal requirements for voting districts that in practice are often manipulated to favor of drawing lines that protect partisan/incumbent interests. This one-credit course will combine an introduction to Geographic Information Systems (GIS) with a focus on the legal analysis of redistricting plans. Students will learn basic GIS skills and tools designed to develop compliant maps. This will include working with district boundary maps, census information and other socioeconomic layers in an integrated GIS platform to understand and quantify the impacts realized when voting districts are redrawn. The course will focus on the 2017 Supreme Court case Bethune-Hill v. Virginia State Board of Elections decision as a frame to better understand the laws governing redistricting efforts. After learning the legal parameters of the redistricting process, students will work in teams to develop and present a redistricting plan for the 12 state legislative districts identified as problematic in Bethune-Hill. In the process of coming up with ways to improve compliance with state and federal statutory and constitutional mandates, this course will uniquely prepare students to play a substantive part in the 2020 round. This course will be graded pass/fail.

**LAW 504 - European Union Law and Politics**

*Spring 1 Jose de Areilza*

The European Union is the most advanced system of law and governance outside the State. Yet different crisis and tensions in the UE are testing ways the foundations of economic and political l integration, from its damaged single currency arquitecture, the massive arrival of refugees, terrorist attacks, populist movements, the UK's decision to leave the EU or the demands of a globalized Marketplace and tecnological disrpution. This introductory course will study the state of EU decision-making, the application of its legal principles and the balance of power between EU political institutions and between Member States in a critical moment of European integration.

**LAW 511 - International Environmental Law Seminar**

*Spring 3 Linda Malone*

The seminar focuses on bilateral, regional and international agreements and principles governing ocean pollution, air pollution, hazardous and nuclear waste, deforestation, and other environmental problems with a global impact. The seminar will also address population control and food shortages under international law, especially in developing countries, and how these problems relate to international peace and security. The basic courses, Law 409 Public International Law and Law 424 Environmental Law, are not prerequisites, but are recommended. The seminar grade will be based on class participation and a paper that satisfies the Writing Requirement.

**LAW 519 - Law of the Sea Seminar**

*Spring (2-3) Linda Malone*

The course explores major legal issues related to protection of critical aquatic environmental systems, from deep oceans beyond areas of national jurisdiction to US coastal land and waters. Students will become familiar with the laws and policies relating to water quality and habitat protection, territorial determinations of ocean zones, fisheries and marine wildlife preservation, ocean energy and mineral resources, pollution of coastal and ocean waters, and management of the coastal zone. Study will include

international conventions and agreements such as the UN Convention of the Law of the Sea and the International Convention for the Prevention of Pollution from Ships (MARPOL). The grade will be based upon a final paper.

**LAW 522 - Selected Topics in Criminal Law Seminar - Domestic Violence**

*Fall (2-3) Cynthia Ward*

This seminar will examine the history, prevalence, and characteristics of domestic violence between intimate partners. Drawing from scholarship and cases in feminist theory, social science research, and law practice, we will focus primarily on domestic violence as a crime and on the criminal law's role in preventing and punishing it. We will study various types of domestic abuse as well as the effect of factors such as age; sexual orientation; race and ethnicity; culture; and mental illness on the incidence and severity of intimate partner violence. We will emphasize evidence-based solutions to the problem and attempt to achieve consensus as to how solutions might be achieved.

**LAW 525 - Drafting for Corporate & Finance Lawyers Seminar**

*Fall 2 Louanna Heuhsen Prerequisite(s):* LAW 303 OR LAW 320

This is a seminar addressing the challenges of drafting to facilitate corporate transactions and meet public company disclosure obligations. This course will focus on understanding and manipulating standard agreement forms such as a stock purchase agreement, an asset purchase agreement and related ancillary agreements. The course also will address some of the intricacies of drafting securities laws disclosure. Prerequisite: Law 303 Corporations or Law 320 Business Associations.

**LAW 528 - Refugee Law and Policy Seminar**

*Fall 2 Evan Criddle*

This seminar will provide an introduction to refugee law and policy, exploring the challenges posed by forced migration from multiple perspectives: international, domestic, and comparative. We will examine the history and theory of refugee protection under international law, focusing on the development of international refugee norms and institutions from World War I to the present. We will then consider how the U.S. Constitution, treaties, statutes, and federal regulations interact to define, protect, and exclude refugees and other categories of protected migrants. Topics for discussion will include the scope of U.S. legal protection for refugees; the domestic administrative process for adjudication of asylum claims; the evidentiary challenges to establishing refugee status; the availability of temporary protected status for victims of human trafficking and violent crime; the (a)symmetries between U.S. legal standards and international law; and policy debates concerning the security risks posed by refugees and other forced migrants. Throughout the course, we will compare and contrast U.S. refugee law and policy with approaches adopted by international organizations, regional organizations, and other states. Grades will be based on a final paper, a brief presentation, and class participation. This course satisfies the writing requirement.

**LAW 529 - The Military Commissions**

*Fall 2 Paul Hutter*

President George W. Bush's November 13, 2001 Order creating Military Commissions to prosecute those accused of committing acts of terror and who harbor them created a firestorm of legal activity. That activity is ongoing, albeit at a much slower pace than during the period from 2002 - 2014. This activity forms a critically important foundation for apprehending, detaining and trying stateless actors and those who fought in a status that was previously ill defined by international law. The course's discussions will engage the students concerning the balance between due process, fundamental fairness and society's interests in the goals of criminal law, e.g., safety, deterrence, retribution and punishment. This course will explore the underpinnings of the November 13 Order through the issuances from the Office of Legal Counsel in the Department of Justice that gave rise to the Order, the activities of lawyers in the

Department of Defense and the White House prior to and following the Order's issuance, and the precedential cases relied upon to create the Order. Students will contrast trial of terrorists in Federal Courts with trial by Military Commissions and opine on the necessity for a legal process that does not include the protections afforded by Article III of the U.S. Constitution. Grades will be based on a final paper. Students may not enroll in this course if they are currently enrolled in, or successfully completed, LAW 543, Terrorism and the Law.

**LAW 531 - Selected Topics in Criminal Justice - Mass Incarceration**

*Spring (2-3) Jeffrey Bellin*

This seminar will study the phenomenon of "mass incarceration" in the United States. The first part of the class will explore the explosive growth in recent decades in the number of people sent to prisons and jails through the American Criminal Justice system. We will seek to identify the causes of mass incarceration and discuss potential mechanisms to reduce the country's prison population. The second portion of the class will consist of student presentations related to the topic of mass incarceration. Each student will chose a topic, in consultation with the instructor, research the topic and make a short presentation to the class. Students will write short analytical papers on their topics. There is no final exam.

**LAW 542 - American Jury Seminar**

*Fall 3 Paula Hannaford-Agor*

This seminar provides a broad overview of contemporary jury system management and trial procedure with an emphasis on current policy debates concerning the American jury. The course begins with a brief review of the history of the jury and current public perceptions of its role in contemporary society. It then examines the jury selection process from summoning and qualification procedures through voir dire. After a brief examination of jury behavior and decision-making based on contemporary social science, the course focuses on contemporary issues concerning the American jury in civil and criminal litigation. Specific topics include juror comprehension of expert testimony, civil jury verdicts and awards including punitive awards, racial and ethnic bias in criminal verdicts, and the effects of death qualification procedures in capital juries. Grades are based on a combination of homework assignments, short essays, a group project and class participation.

**LAW 546 - Government Contracts Seminar**

*Spring 3 Gilbert Teal*

This course will examine the processes by which the federal government awards and administers contracts ranging from acquisitions of multi-billion dollar weapon systems and large public works contracts, to routine purchases of office equipment and supplies. Discussions will focus on how federal contracting differs from contracting under state law, and address special topics unique to government contracting, such as procurement ethics, socioeconomic considerations, bid protests, changes, contract disputes and litigation, fiscal law requirements, and terminations.

**LAW 561 - Influence of Legal Profession on Legislative and Judicial Process Seminar**

*Fall (2-3) Thomas Norment*

George Wythe was the 'Father' of the William & Mary Law School. He was an extraordinary lawyer who served in all three branches of Virginia's government. Wythe's curriculum insisted his students actively participate in mock legislative sessions which dealt with the substantive and procedural aspects of important legislation pending before the Virginia General Assembly. Wythe understood the inevitable and critical interplay between the legal profession, politics and public policy. History suggests the legal profession has disproportionately impacted legislative outcomes. Our focus this semester will be to examine how this principle remains a truism in the 21st century. In 2007, the Virginia General Assembly passed the highly controversial 'Omnibus Transportation Bill' that was dramatically impacted by the legal profession at every conceivable stage; and ultimately declared unconstitutional by the Virginia Supreme

Court. This course will use this bill as a framework to more broadly examine the legal profession's influence on both the substantive and procedural history of legislation. Active student participation will be expected as we analyze, dissect and advocate as appellants and appellees the constitutional merits of this legislation, offering individually, student drafted amendments to cure any constitutional infirmities.

**LAW 587 - Animal Law Seminar**

*Spring (1-3) Karen Welch*

This seminar offers a practical survey of legislative and regulatory effects and litigation on behalf of animals under U.S. and International law. The course will address the historical status of animals in the law; the current application of animal protection laws for companion animals, wildlife, and farm and other domesticated animals; legislative efforts and citizen initiatives to strengthen animal protection laws; and the limitations on implementation and enforcement of laws addressing anti-cruelty, wildlife, marine mammal and other areas of animal protection and the impacts of free speech, religious expression, and other Constitutional provisions on animal protection statutes will be explored.

**LAW 595 - Citizen Lawyers Seminar - Lessons in Leadership**

*Fall (1-3) Alan Rudlin*

In addition to offering professional advice as counselors at law, lawyers in America have often been citizen leaders, playing key societal roles in politics, business, and their community. How does traditional legal thinking and analysis work for lawyers in citizen leadership roles, often beyond a purely legal context? This class will address that question, and seek to broaden your approach to problem-solving. We will focus as a case study on how lawyer-leaders performed both in advising policy-makers and sometimes playing those policy roles during the United States' involvement in the Vietnam war. We'll assess the process of their decision-making, and see what lessons can be learned for all citizen lawyers. Henry Kissinger has commented that U.S. foreign policy has suffered in part because key players have often been lawyers, who lack an appropriate historical perspective in making decisions. We'll consider if that is a valid criticism and examine other ways that decisions might have been better made. We will also address the topic of Executive War Powers authority, which remains a live issue for our country today. This class is intended to sharpen your skills in conceptual problem-solving, and how to think beyond narrow legal frameworks when appropriate. The goal is to develop that most vital of all lawyer skills: good judgement. We will also assess how ethical factors contribute to better leadership decision skills. Class Approach: There will be a variety of assigned reading, selected in part from the books noted below. We will consider four groups of decision makers: White House advisors, the State Department, Congress, and the Pentagon, and evaluate how each "client group" contributed to the decisions being made. Prominent guest speakers will be invited to address us as well. Student Eligibility: The seminar is primarily intended for second and third year law students. The course will be graded on Pass-Fail basis, based on class discussion and a short essay to be submitted after the course conclusion. Primary Assigned Reading (Selections): Dereliction of Duty - by Gen. H.R. McMaster Lessons in Disaster - by Gordon M. Goldstein

**LAW 598 - Selected Topics in Juvenile Law Seminar**

*Fall (1-2) Helivi Holland*

This course will explore issues relating to two groups of juveniles: those who may be in need of protection and those who come into conflict with the criminal law. This seminar will take place in five parts. Part I - Overview of Juvenile Law; Part II - Child Welfare - Juveniles in Need of Protection from Others and Themselves; Part III - Prosecution and defense of Juveniles Charged with Crimes; Part IV - Juveniles in Custody at a Juvenile Correctional Facility; Part V - The Judicial Considerations when Juveniles are Before the Court. Knowledge gained from this course will assist students as future lawyers and policy makers to better shape the juvenile court system. Grading for this course will be 20% class participation and 80% based on a paper. The course will be graded.

**LAW 604 - Islamic Law Seminar**
*Fall (1-3) Christie Warren*
This course will examine the historic roots of Islam and its significance as law and religion before surveying several representative systems of Islamic law. Satisfies the Writing Requirement.
This course satisfies the writing requirement.

**LAW 619 - Supreme Court Seminar**
*Fall (2-3) Neal Devins*
This course will look at the Court's most recent term, the current term, and consider the relationship of the Court to Congress (including the Gorsuch confirmation), the President, and state officials; this course will also provide students with an opportunity to meet leading judges (including Supreme Court Justice Sonia Sotomayor, 2 federal court of appeals judges, and perhaps a state supreme court justice), Supreme Court advocates, and commentators. We will meet most but not all weeks at the regularly scheduled time. Students will also attend parts of the annual Supreme Court Preview program (Sept 15 evening & Sept 16 morning or afternoon), and take a 2 day field trip to Washington, DC to meet judges/justices, advocates, and attend oral arguments (most likely Nov 6-7). Students earning 3 credits will write a paper of around 25 pages and three short pass-fail memos (1 page). Students earning 2 credits will write three memos of around 5-6 pages. Students earning 2 credits must attend all class sessions and do related readings.

**LAW 627 - Selected Topics in Insurance Regulation Seminar**
*Fall (1-3) Stephen Carney*
Since its inception, insurance has evolved from a purely private contractual arrangement to a highly regulated industry. This course will explore how legal and regulatory principles have changed to address this ever more complex industry. We will also explore the public policy underpinning the development of our complex insurance regulatory system. Specific topics covered will include the creation and growth of the regulatory process, the state versus federal debate over the regulation of insurance, the powers of state insurance commissioners (both legal and practical), and how the regulatory process imposes specific restrictions and requirements on certain areas of insurance and certain types of insurance products. We will also explore how public policy pressures are currently affecting insurance law and regulation (e.g., legal and legislative reactions to the insurance industry's handling of major catastrophes, such as hurricane Katrina, the attempts by both the states and the federal government to create residual markets to cover losses which the private market is unwilling to take on, and the effect of the current health care reform debate on the health insurance landscape). In addition to the writing requirement, students will have an opportunity to participate in a debate on the comparative benefits of state and federal regulation of insurance and to select a cutting-edge topic for class discussion.

**LAW 628 - Selected Topics in Race & American Legal History Seminar**
*Fall (1-3) Davison Douglas*
Seminar topics will vary from term to term but will focus on race as it relates to American legal history. NOTE: you may not register for this course if you have successfully completed or currently enrolled in LAW 685, Race, Law, & Lawyering in Diverse Environments.

**LAW 630 - The Death Penalty Seminar**
*Spring (2-3) Tommy Miller*
This course will explore the history, constitutional rules and implementation of the death penalty in the United States. We will examine the special requirements for a capital trial including the selection of a 'death qualified' jury, use of aggravating and mitigating evidence in the punishment phase of the trial, and the right to effective counsel. Arguments by proponents and opponents of the death penalty will be discussed. Students will write a research paper on an instructor approved topic and present the results of their research in class.

**LAW 638 - Statutory Interpretation Seminar**

*Fall (2-3) Allison Larsen*

This seminar is a scholarly exploration of the modern debate about how courts should (and do) interpret statutes. The course is not designed to be a comprehensive survey of thinking about statutory interpretation. Rather, the course is designed to introduce you to, and encourage you to think critically about, several of the major theories and themes that inform the modern debate (the virtues and vices of, for example, textualism, purposivism, legislative history, and the public choice theory of legislation). It is also designed to give each student an opportunity to sharpen his or her skills of critical analysis by writing critiques (and also defending) articles addressing issues of statutory construction. Grades will be based on the short written critiques (less than 10 pages a piece) and classroom participation.

**LAW 644 - Taxation of Mergers & Acquisitions Seminar**

*Spring (2-3) William Richardson Prerequisite(s):* LAW 438

This advanced course focuses primarily on corporate acquisitions. It will explore different ways to structure both nontaxable and taxable combinations of business entities, the tax goals and consequences of such transactions, and the role of the tax lawyer in representing a party to a business combination. This course will build on concepts introduced in the Law 438 Corporate Tax course, completion of which is a prerequisite unless waived by Professor Richardson. Waivers generally will be granted for students whose class rank is in the top 20% or whose grade in Federal Income Taxation (Law 311) is A- or higher. This course may be taken for either two or three credits; in order to earn three credits, students are required to write a paper of approximately ten pages, in addition to completing the exam.

**LAW 649 - Selected Topics in Special Ed Law**

*Summer only 1 Christina Jones*

This one week mini-course features national and regional experts teaching the following topics: special education case law, legislation, and regulations; utilizing evaluations, tests and measurements in determining eligibility in special education, and in the preparation of Individualized Education Programs and Section 504 Plans; issues of juvenile justice, behavior and discipline for students with disabilities; strategies for negotiating with schools and working with parents; dispute resolution procedures in special education; preparing legal claims and remedies on behalf of students with disabilities who are denied an appropriate education; and creating systemic change in the system. Students will attend more than 25 hours of instruction with fellow attorneys, law students, and experienced advocates interested in learning how to represent children and families in special education. Preparation for and participation in all sessions is required, as well as a paper of no less than ten double-spaced pages on a mutually agreeable topic, due to Professor Roberts by August 10th. This is a two-credit graded course. Further scheduling details can be found on the PELE Clinic website.

**LAW 651 - The Resurgent Role of Legal History in Modern Judicial Decision-making Seminar**

*Spring (2-3) D Kelsey*

Taught by Judge D. Arthur Kelsey of the Virginia Court of Appeals, this course examines the increasingly prominent role legal history plays in modern judicial decision-making and the jurisprudential factors that explain it. The class will survey recent U.S. Supreme Court and state cases decided primarily with historical reasoning, examine the cited historical sources directly, and consider academic praise and criticism of the judicial invocation of legal history all toward the goal of equipping students to confidently incorporate historical argument into their legal thinking as well as their future advocacy.

**LAW 659 - Religion and American Law; A Contest of Values**

*Fall (2-3) Mark McGarvie*

The United States is generally understood to have separated church and state through its First Amendment to the Constitution; but, the nation's history belies this assumption. In this course, students will consider

the history of Christian influences upon American law, from the colonial era to the present. Hopefully, students will form their own appreciations and understandings for both the role of law in shaping and adjudicating ideological debates and the limitations that competing cultural values impose upon the law. The classroom discussions will focus on weekly reading assignments offering a wide range of historical, legal, and cultural perspectives. Students will be evaluated on the basis of their participation in classroom discussions and a final paper. The final paper topic will be assigned on the first day of class and will be based entirely on materials used in the class. A different paper assignment is offered to students who take the class in fulfillment of the writing requirement. Two credit course; three credits if taken in fulfillment of writing requirement.

**LAW 663 - Selected Topics in Sports Law Seminar**

*Spring (1-3) Andrew Larsen*

This seminar will consider various topics regarding sports law. The nature of the topics will change from term to term

**LAW 674 - Property Theory Seminar**

*Spring (2-3) James Stern*

This seminar will explore advanced topics in property law, including the meaning of property and property rights, the way property systems and structures work, and the origins, justification, and limits of property law. Course materials will consist of foundational legal, historical, and philosophical texts, as well as significant current scholarship. After several weeks of background reading, each session will be devoted to intensive study of a single law review article. For each article, one student will prepare a written critique and one student will be asked to defend the article in class against the critique. The course will stress skills of close reading, critical analysis, and persuasive argumentation. Thorough preparation and active participation each session are essential. Grading will be based upon a ten-page critique of a designated law review article, oral defense of a designated article, and class participation.

**LAW 677 - History of the Common Law Seminar**

*Fall (2-3) Thomas McSweeney*

We use the term "common law" to refer to the Anglo-American legal system as a whole, but England and early America were actually patchworks of competing legal systems. There was no common law of marriage or probate, both of which came from canon law, or of trusts, which came from equity. Devices like the fee tail, which we think of as ancient common law, were actually statutory. Judicial review might have its origins in the relationship between England and the colonies, not in traditional common law doctrines, and an important point of debate after 1789 was the degree to which the U.S. constitution had either abrogated or adopted the common law. Over time, most of these competing legal systems have been incorporated into the system we know as the common law. In this course, we will examine the history of the common law from its beginning in the 12th century to the present by looking at its interaction and competition with these different systems of law. We will read and discuss both primary and secondary sources. Grading will be based on class participation and the written work submitted.

**LAW 679 - Climate Change**

*Fall (1-3) Lynda Butler*

This course will examine the phenomenon of global climate change and its implications for law and policy across all institutional levels. Climate change will be examined both as a physical and social phenomenon with implications for scientific, legal, economic, and political systems. In addition to exploring the global response, the course will study the U.S. approach, including federal, state, local and private initiatives. Topics of study may include, among others, renewable energy, sustainable land development, property rights and climate change, food sustainability, carbon sequestration, and regulation of greenhouse gas emissions.

**LAW 683 - Extraterritorial Jurisdiction Seminar**

*Fall (2-3) Jay Butler*

This seminar will examine the assertion of extraterritorial regulatory and enforcement jurisdiction over persons, entities and activities abroad. Topics likely: reach of the U.S. Constitution and of U.S. statutory law, the limits of personal jurisdiction, the Alien Tort Stature, the Foreign Corrupt Practices Act, cyber-crime and the application of the international treaties to armed forces serving overseas. A comparative approach to the exercise of extraterritorial jurisdiction may also be utilized. Grade to be based on a research paper.

**LAW 684 - Elder & Disability Law Clinic II (EDLC II)**

*Spring 2 Helena Mock Prerequisite(s):* LAW 784

Advanced clinical experience in Elder and Disability Law which allows up to four students selected by the Professor who have successfully completed the Elder & Disability Law Clinic I to expand and further refine their research, writing, and advocacy skills through increased autonomy in representation of clients in more complicated legal matters. Students in EDLC II will provide assistance and advocacy in matters involving competency, nursing home issues, and Medicare, Medicaid, Social Security and other public benefit programs, including service-connected compensation and non-service connected pension benefits from the VA. Students will also gain skills in working with state and local agencies on elder law issues, and in preparing themselves and their clients for legal and administrative hearings. They will hone the acquired knowledge and skills by presenting public seminars or preparing materials on issues important to the elderly community and those with disabilities. Students will be graded on the quality of their work and their ability to represent multiple clients and manage multiple cases. Students may be required to mentor EDLC I students in these skills. This clinic will be taught by Professor Helena Mock and Erin Smith. Weekly times TBD. Graded, 2 credit course. Prerequisite: Elder & Disability Law Clinic I, open to both 2Ls and 3Ls.

**LAW 685 - Race, Law, and Lawyering in Diverse Environments**

*Spring 3 Vivian Hamilton*

The primary goal of this course is to explore ways in which people have used law both to perpetuate and to challenge racial injustice in the United States. It begins with a brief survey of race-based law from the nation's founding through the Supreme Court's 1967 decision in Loving v. Virginia. It then explores the Critical Race Theory academic movement, perspectives on racial identity, race as social construction, and identity performance. And it examines the intersections of race and laws governing (inter alia) education, employment, criminal justice, affirmative action, and electoral processes. The secondary goal of the course is to explore ways in which the increasing diversity of society and of the legal profession affects the practice of law. Legal practice involves interpersonal activity, and all lawyers will interact with colleagues and clients whose cultural heritage differs from their own. This course thus explores the significance of culture and cultural differences in the practice of law. It introduces Intercultural Communication Theory - the study of interactions between people of different cultural backgrounds - to provide students (of all racial/cultural backgrounds) a framework upon which to enhance their capacities to communicate effectively and work productively with attorney colleagues and clients with identity backgrounds different than their own. Grading is based on (1) 2-3 short reflection papers or an in-class presentation (student's choice); and (2) a take-home (24 hrs.) self-scheduled exam. NOTE: you may not register for this course if you have successfully completed or currently enrolled in LAW 628, Race and American Legal History.

**LAW 688 - Mergers & Acquisitions Simulation**

*Fall 1 Louanna Heuhsen Prerequisite(s):* LAW 464

This course is a joint venture involving law students and business students. Students will analyze, negotiate, and agree upon a corporate acquisition in a simulation exercise based on a real estate

transaction. Students will work with experienced business professionals and mergers and acquisitions attorneys. The final work product will be a letter of intent and term sheet executed by both sides of the transaction, a memorandum outlining the duties of the target board, and a valuation presentation. The course will be graded pass/fail. The regular mergers and acquisitions course, LAW 464, is a prerequisite.

**LAW 691 - Advanced Applied International Research**

*Spring 2 Christie Warren*

After receiving training in International and Comparative Legal and Policy Research, students will be divided into small teams and assigned to work directly with international projects working in developing and post-conflict environments. As requested by project managers, research teams will conduct comparative legal and policy research used to support development and peacebuilding strategies. Participating projects may be located in countries such as Cambodia, China, Uganda, South Africa, Kyrgyzstan and the Hague. Students will be individually assigned to one of the participating organizations and will receive research assignments directly from field supervisors. Over the course of the semester each student will generate 15 to 20 pages of research to be reviewed and graded by Professor Warren before being turned in to field projects. Students interested in participating must apply directly to Professor Christie Warren at cswarr@wm.edu. Please submit a cover letter explaining your interest and any international or comparative coursework you have completed along with a current resume.

**LAW 693 - Entertainment Law Litigation Seminar**

*Spring 2 Paul Marcus*

This course will explore current issues involved in American entertainment law as litigated in our courts. The unifying features here will be problems that are current, practical, complex, and that involve constitutional, statutory, case law, and policy analysis. We will focus on four principal areas: protection of ideas by contract, defamation, rights of privacy (both public disclosure of private facts and false light), and the right of publicity. We will not consider in depth Copyright or Trademark Law. Enrollment is limited. Class will meet in one two-hour session each week. The first hour will be a discussion led by students on the assigned topic; I will then lead a further discussion of that topic for the second hour. At least two weeks prior to the designated oral assignment, students must meet with me to discuss the substance of their presentation, the format for it, and the preparation of reading materials and discussion questions for the other students in the class. Depending on class size, each student will prepare either two or three presentations as part of a group. There is no assigned text, readings will be distributed electronically throughout the semester. The grade for this class will be determined as follows: 50% for class presentation and class participation apart from the presentations, and 50% for a paper due the last day of class. There will be no final exam.

**LAW 694 - Legal Aspects of Corporate Finance**

*Spring 3 Kevin Haeberle Prerequisite(s):* LAW 320 OR LAW 303

This course provides a survey of some of the more prominent advanced-level topics in corporate and securities law as seen through the lens of economics (namely, financial economics). Topics will likely include the efficient capital markets hypothesis, modern portfolio theory, the valuation of rights to future cash flows, the mechanics and economics of financial-instrument markets (with a focus on the stock market), and the role of stock prices in capital allocation and corporate governance. It will also take a finance and economics-based look at issues relating to shareholder voting and corporate takeovers. Notably, Legal Aspects of Corporate Finance involves only very basic mathematical formulas, and emphasizes intuitive and graphical understandings of economics and finance for lawyers rather than math. Students must have completed Business Associations or Corporations before enrolling in this course.

**LAW 697 - Securities Litigation**

*Spring 3 Kevin Haeberle*
This course examines the federal law and policies governing the purchase and sale of securities, particularly the Securities Act of 1933 and the Securities Exchange Act of 1934 as well as the regulations and case law relating to each. More precisely, the course focuses on the litigation devices that help ensure more robust securities disclosure. (Securities-disclosure law forms the heart of the closely related Securities Regulation class, and much securities and corporate transactional work relies on a strong understanding of that law.) Although this course will touch on securities-disclosure law, its primary focus is thus different than the Securities Regulation course. This litigation-focused course will instead primarily study public and private litigation under Section 10(b) of the Securities Exchange Act of 1934. It will also allocate much time to other important provisions under which much securities litigation proceeds today (namely, sections 11, 12, and 17 of the Securities Act of 1933). Lastly, the class will explore insider-trading prosecutions under the federal securities laws in an in-depth manner. Note; students may not enroll in LAW 697 Securities Litigation after successfully completing LAW 423 Securities Regulation, nor enroll for both courses concurrently.

**LAW 701 - Legal Writing and Research**
*Fall/Spring (1-2) Jennifer Stevenson*
Students will learn essential information about the U.S. legal system and fundamental principles of legal decision making, as well as legal analysis, writing, research, and other practical skills. Students will work with law school legal writing faculty and research librarians to research and write objective office memoranda and other legal documents.

**LAW 703 - Directed Reading**
*Summer/Fall/Spring 1 Staff*
An examination of a specialized subject that generally is not offered as a course within our curriculum on a regular basis. This course is arranged between an individual student or group of students (maximum, 5) through readings selected in agreement by the directing faculty member and students. This course meets for at least 700 minutes over the course of the term. Prior approval by the Associate Dean for Research and Faculty Development is required. Students are limited to one Directed Reading credit per year. Graded on a pass/fail basis.

**LAW 704 - Independent Legal Research**
*Summer/Fall/Spring (1-2) Staff*
This course requires the completion of a scholarly paper on a subject selected by the student, under the supervision of a faculty member. Does not satisfy the writing requirement. For Law 704-02 or 03, please see term description.

**LAW 705 - Independent Legal Writing**
*Summer/Fall/Spring 2 Staff*
This course requires the completion of a significant research paper on a topic selected by the student, under the supervision of a faculty member. Students may enroll in this course for credit no more than twice and this course satisfies the writing requirement. An important goal of the major paper requirement is to improve students' writing skills. Faculty supervisors should communicate this goal to students at the beginning of the process and reinforce it throughout the paper-writing process, especially after submission of the first draft. Papers that satisfy the major paper requirement should evolve through four major stages, each of which should occur in consultation with the supervising faculty member: 1. Topic Development: The student should produce a succinct, coherent topic statement that sets out the thesis of the proposed paper. 2. Outline: The student should produce a reasonably comprehensive outline of the paper, including a statement of the basic steps in the argument, the major sources used, and a tentative conclusion or a comparable writing. 3. First Draft: The student should produce a first draft of the paper in time for the supervising faculty member to make comments and for the student to respond to those comments in the

form of a second draft. Normally, the first draft should be submitted to the supervising faculty member by the end of the 10th week of classes. 4. Final Draft: The student should turn in the final draft of the paper by noon on the last day of exams for the semester, or as otherwise designated by the professor.

**LAW 711 - Spanish for Lawyers**

*Spring 1 Denise Koch*

This is a one-credit course that will give students an opportunity to use Spanish language skills in a legal context. This class will begin with a grammar review and an introduction to basic legal vocabulary in Spanish. Each class will then concentrate on one substantive area (i.e., Family Law, Immigration Law, Criminal Law and Business/Employment Law). Students will learn and be able to use in an oral and written context vocabulary related to each area. Oral exercises including discussion and role play will help students to further develop listening and speaking skills. Literature and films appropriate to the topics will be used to stimulate discussion related to the legal issues involved and the realities of Spanish speaking citizens in the U.S. The course will meet once a week for 50 minutes. Materials will include THE ABA LEGAL SPANISH PHRASEBOOK, AL TANTO: CATORCE CUENTOS CONTEMPORANEOS, CINEMA FOR SPANISH CONVERSATION, and various legal documents in the target language. This will be a pass/fail course. Students will be evaluated through vocabulary quizzes, performance on oral role playing exercises, and a final group project or written/oral examination TBD. Students should have intermediate or advanced proficiency in spoken and written Spanish.

**LAW 716 - Power, Influence & Responsible Leadership**

*Spring (1-3) Jose de Areilza*

This is a course about learning to use power and influence as effective tools for both understanding your surroundings and achieving your goals. It is a course about getting things done in the real world, where politics and personalities can often seem to hinder rather than help you. It is a course for those of you who want to make things happen, despite the obstacles that might stand in your way. Consequently, it is a course about you. Course Objectives: This course presents conceptual models, tactical approaches and self-assessment tools to help you understand political dynamics as they unfold around you and develop your influence style. By focusing on specific expressions of power and influence this course gives you the opportunity to observe their effective and ineffective uses in different contexts and stages of a person's career. The subject matter will introduce different ethical questions. This course should challenge you to define what will constitute the ethical exercise of power and influence in your life. In this course we will rely on a mix of case studies, exercises, self-assessment tools and readings. Your grade will be based 50% on class participation and 50% on the final paper.

**LAW 720 - Trial Advocacy - Basic Advanced Litigation**

*Fall/Spring (1-4) Staff Prerequisite(s):* LAW 309 OR LAW 308 OR LAW 309T

An advanced litigation course intended for those students who have a substantial interest in litigation. The course is designed to develop the student's skills as a trial lawyer for both civil and criminal cases. Trial Advocacy will deal with trial strategy, jury selection, opening statements, presentation of evidence, including the examination of witnesses, closing arguments, and preparation of jury instructions. Evidence presentation and related technologies will be fully integrated into all aspects of the course. A trial will be required. Students who take Trial Advocacy-Basic Advanced Litigation may not take any other Trial Advocacy section (Tech Trial Ad or National Trial Team Trial Ad) for credit. Pre-requisite: satisfactory completion of Evidence, or co-registration in Evidence. This course is open to any upper-level student who satisfies the pre-req or co-req.

**LAW 722 - Mediation**

*Spring (2-3) Charles Poston*

This course is designed for students who are interested in how to effectively incorporate mediation theory

into practice. Different models and approaches to mediation will be discussed and students will learn a broad range of skills and techniques through lectures, discussions, video simulations, exercises and role-plays. The process of mediation including convening and preparing for mediation, opening the mediation session, defining the issues, facilitating communication and creative problem-solving, and structuring a mediation will be covered. Skills that are valuable for mediators and advocates such as developing trust and rapport, active listening, formulating questions, gathering information, reframing, and effective interaction for facilitated decision making will be covered. In addition, we will examine legal, ethical and policy issues that arise in the mediation context. This is a 3 credit, graded course.

**LAW 724 - Negotiation for Lawyers**

*Spring (1-4) Cynthia Ward*

This course will explore the theoretical and strategic fundamentals of negotiating in a variety of legal situations. The course will be taught in a once-weekly, 2 1/2 hour format and will focus heavily on class exercises and simulations by students working in teams of two, three, or four. The course will cover various issues central to the topic, including the stages of negotiation; psychology of negotiation and related issues such as verbal and non-verbal communication and power and control in the bargaining process; the principal-agent relationship; substantive and strategic differences between unilateral and multilateral negotiations; and the law of settlement. The course grade will be based on (1) student participation in class discussions and exercises; (2) student performance in simulated negotiations; and (3) a final exam which will draw heavily on weekly class discussions of the assigned class materials.

**LAW 727 - Foreign & International Research**

*Spring 1 Jennifer Sekula*

Foreign and International Research is a 1-credit pass/fail course that introduces students to a variety of foreign and international law sources and research methods over seven class sessions. Students will learn how to efficiently research secondary information, treaties, and other international agreements, foreign and European Union law, and United Nations documents. Classes meet once a week for seven weeks, and students complete in-class and out-of class research assignments. There is no final exam or required textbook.

**LAW 730 - Advanced Brief Writing**

*Fall 2 Jennifer Franklin*

Jennifer Franklin

**LAW 737 - Planning a Chapter 11 Filing**

*Fall 1 Jeffrey Schlerf*

This course will provide students with a practical exploration of corporate restructuring and the Chapter 11 process. The course will follow a role-playing, case-study format, in which students will learn about advising a company on restructuring options including preparing for a bankruptcy filing. Grading will be on a pass/fail basis, with assessment based on class participation and some very limited written work product by student teams during the role-playing exercises. Prior knowledge of bankruptcy law is not necessary. 1 credit pass/fail

**LAW 738 - Technology-Augmented Trial Advocacy**

*Spring 4 Fredric Lederer Prerequisite(s):* LAW 308 OR LAW 309

Technology-Augmented Trial Advocacy combines instruction in traditional trial practice, including basic deposition practice, with contemporary technology-augmented trial practice techniques, including use of a high-tech record at trial, technologically presented evidence, and remote witness testimony. The course will address trial strategy, jury selection, opening statements, presentation of evidence, including the examination of witnesses, closing arguments, and preparation of jury instructions and will encompass

both civil and criminal cases. The course requires satisfactory completion of a jury trial using role-played witnesses. This is a 4-credit pass/fail course open to second-year and third-year students. Students may not enroll in or have Basic Advanced Litigation. Students may take or have taken National Trial Team Trial Ad. Prerequisite: satisfactory completion of Evidence or Applied Evidence.

**LAW 741 - Virginia Coastal Policy Practicum I**

*Fall/Spring 3 Elizabeth Andrews*

Open to 2Ls and 3Ls, the Virginia Coastal Policy Practicum is an experiential class offered by the Virginia Coastal Policy Center (see www.law.wm.edu/vacoastal). The practicum is clinical and interdisciplinary in nature and it focuses on a broad range of policy challenges facing coastal communities and resources. The practicum is taught by Professor Elizabeth Andrews. Graded course.

**LAW 743 - Federal Tax Clinic**

*Fall/Spring 3 Craig Bell*

Open to 3Ls, the Federal Tax Clinic offers eight students the opportunity to assist in the representation of low income Virginia taxpayers seeking assistance from the nonprofit Community Tax Law Project before the IRS, U.S. Tax Court, and U.S. District Court. Students will find it helpful if they have taken Federal Income Tax, however Tax is not a prerequisite. Taught by Professor Craig Bell. Pass/fail course.

**LAW 745 - Domestic Violence Clinic**

*Fall/Spring 3 Darryl Cunningham*

The goal of this clinic is to represent victims in our community who may not be able to afford legal services so that they can obtain protective orders, and other needed services arising out of that abuse, as well as to educate the community about domestic violence and safety planning. This clinic offers 8 students who have their third-year practice certificate the opportunity to work with the Williamsburg Legal Aid Office (Legal Aid Society of Eastern Virginia, aka LASEVA) and local shelters and organizations to provide legal assistance to victims of domestic violence and their families. Students will learn the effects of domestic violence on victims, their families, and the community at-large. Students will learn to interview clients, examine witnesses, and prepare for hearings. Under the supervision of attorneys, students will provide legal representation to victims of domestic violence in protection order hearings, child custody and support hearings, and advocate for clients to obtain other needed services. Students will learn about and advise clients on safety planning strategies. In addition to meetings with Professor Darryl Cunningham, LASEVA's Senior Attorney in Williamsburg, and the clinic's resident Fellow, Lindsay Barna, there is a one and a half hour classroom meeting per week and planning sessions to prepare presentations to educate the local community about domestic violence. To receive credit for this course, each student MUST attend the first meeting. Pass/Fail course.

**LAW 746 - Family Law Clinic**

*Fall/Spring 3 Darryl Cunningham*

Open to 3Ls, the Family Law Clinic offers eight students who have their third-year practice certificate the opportunity to represent and advise clients of limited financial means from the Williamsburg office of the Legal Aid Society of Eastern Virginia (LASEVA), in divorce, custody, support and equitable distribution matters. Taught by Professors Darryl Cunningham and Lindsay Barna. Pass-fail course.

**LAW 747 - Innocence Project Clinic I**

*Fall (2-3) Frederick Gerson*

This clinic offers eight students the opportunity to engage in the legal investigation and research of inmate claims of actual innocence under Richmond attorney Fred Gerson. Using primary sources including police and forensic reports, court pleadings, transcripts, appellate briefs and opinions, students will research and prepare written summaries of the cases referred to the Clinic by the Mid-Atlantic Innocence

Project (MAIP), so that MAIP may determine whether or not to pursue the innocence claim. Students will have the opportunity to conduct interviews of inmates and possible witnesses, as well as other preparatory case work with private investigators, forensics experts and attorneys. The Clinic's focus will include DNA evidence, investigative activities, post-conviction remedies and procedures, and in-class simulations. Students will gain an understanding of the various ways innocent people are convicted and discuss remedies for exoneration. In-class discussions will systematically prepare students to undertake the investigations necessary to assess prisoner's claims of factual innocence. Although the investigations are as varied as the cases, they can generally be placed into two categories; (1) cases involving searches for DNA evidence, and (2) cases involving non-biological evidence. In all of the cases, students, supervised by the professor and MAIP staff and volunteers, will work with the prisoner, former attorneys, courts, and police departments to create complete files to determine an investigative strategy. In DNA cases, students contact (and sometimes visit) courthouses, police departments, labs, and hospitals to determine whether any testable physical evidence remains in files or warehouses from cases that are often decades old. In non-DNA cases, students will interview eyewitnesses, alibi witnesses, co-defendants, and, in some cases, alternative suspects, and perform other necessary investigation, again to include travel throughout the Commonwealth. Occasionally cases also require travel to a prison in order to interview a prisoner. Ideally, in instances where MAIP accepts the case and assigns it to an attorney, the Clinic students who worked on the case will remain involved with it, thus preserving continuity and providing students with an even fuller learning experience. Innocence Project II will be offered in the spring semester for those who choose to enroll and have successfully completed Innocence Project Clinic I; ideally the students from IP I will enroll in IP II, for a more in-depth semester of work and skill building on their assigned cases. Prerequisites: Students must be enrolled in or have completed Evidence. Weekly clinic seminar Thursdays 6:00-8:30 pm. To receive credit for this course, each student MUST attend the first meeting. Pass/fail course. Pre or Co-requisite: Evidence Law 309 or Law 309T.

**LAW 749 - Non-Profit Organization Externship**

*Summer/Fall/Spring (1-3) Robert Kaplan*

Eligible placements include U.S. civil legal services/legal aid organizations and U.S. private, nonprofit, 501(c)(3) organizations. Private nonprofit organizations with IRS status other than 501(c)(3) are not eligible for externship credit. Organizations outside the U.S. are eligible if they would qualify for 501(c)(3) status if they were U.S. organizations. Finalizing an externship requires 3 steps before the registration deadline: (1) securing an externship; (2) submitting a completed Externship Agreement; and (3) registering for the correct course and the correct number of credits. 1-3 credits. Externships are graded Pass/Fail.

**LAW 752 - Virginia Attorney General Externship**

*Summer/Fall/Spring (1-3) Catherine Bellin*

Eligible placements include the divisions/sections of the Virginia Attorney General's office. Finalizing an externship requires 3 steps before the registration deadline: (1) securing an externship; (2) submitting a completed Externship Agreement; and (3) registering for the correct course and the correct number of credits. 1-3 credits. Externships are graded Pass/Fail.

**LAW 753 - State & Local Government Externship**

*Summer/Fall/Spring (1-3) Catherine Bellin*

Eligible placements include state or local government agencies and offices, such as city/county attorneys, attorneys general, and state legislators. This type of externship covers all William & Mary offices. Placements with prosecutors and public defenders are covered by their respective externships. Finalizing an externship requires 3 steps before the registration deadline: (1) securing an externship; (2) submitting a completed Externship Agreement; and (3) registering for the correct course and the correct number of credits. 1-3 credits. Externships are graded Pass/Fail.

**LAW 754 - Judicial Externship**
*Summer/Fall/Spring (1-3) Robert Kaplan*
Eligible placements include judges (including administrative law judges), hearing officers, courts, and organizations that provide research, educational, and management services to judges and courts (e.g., the National Center for State Courts, the Federal Judicial Center, the Administrative Office of the U.S. Courts). Finalizing an externship requires 3 steps before the registration deadline: (1) securing an externship; (2) submitting a completed Externship Agreement; and (3) registering for the correct course and the correct number of credits. 1-3 credits. Externships are graded Pass/Fail.

**LAW 756 - US Attorney Externship**
*Summer/Fall/Spring (1-3) Catherine Bellin*
Eligible placements include the civil or criminal divisions of U.S. Attorney offices. Finalizing an externship requires 3 steps before the registration deadline: (1) securing an externship; (2) submitting a completed Externship Agreement; and (3) registering for the correct course and the correct number of credits. 1-3 credits. Externships are graded Pass/Fail.

**LAW 758 - Federal Government Externship**
*Summer/Fall/Spring (1-3) Catherine Bellin*
Eligible placements include Federal agencies (including JAG Corps). They also include Congressional committees and members of Congress, subject to the prohibition on partisan political activities and lobbying. Federal Public Defenders are covered by the Public Defender Externship; U.S. Attorney offices are covered by the U.S. Attorney Externship. Finalizing an externship requires 3 steps before the registration deadline: (1) securing an externship; (2) submitting a completed Externship Agreement; and (3) registering for the correct course and the correct number of credits. (1-3 credits). Externships are graded Pass/Fail.

**LAW 759 - Private Practice/In-House Counsel Externship**
*Summer/Fall/Spring (1-3) Catherine Bellin*
Eligible placements include solo practitioners, law firms, and in-house law departments of corporations and trade associations. Finalizing an externship requires 3 steps before the registration deadline: (1) securing an externship; (2) submitting a completed Externship Agreement; and (3) registering for the correct course and the correct number of credits. 1-3 credits. Externships are graded Pass/Fail.

**LAW 760 - William & Mary Law Review**
*Fall/Spring (1-4) Nathan Oman*
Preparation and editing of comments and notes for the William and Mary Law Review; editing of professional articles. Limited to the board and staff members of the Review.

**LAW 761 - William & Mary Bill of Rights Journal**
*Fall/Spring (1-4) Neal Devins*
Preparation and editing of student notes for the William and Mary Bill of Rights Journal; and editing of professional articles. Limited to the board and staff members of the Journal.

**LAW 762 - William & Mary Environmental Law & Policy Review**
*Fall/Spring (1-4) Ronald Rosenberg*
Preparation and editing of student notes for the William and Mary Environmental Law and Policy Review; editing of professional articles. Limited to the board and staff members of the Review.

**LAW 763 - William & Mary Journal of Women & the Law**

*Fall/Spring (1-4) Vivian Hamilton*
Preparation and editing of student notes for the William and Mary Journal of Women and the Law; editing of professional articles. Limited to the board and staff members of the Journal.

**LAW 764 - William & Mary Business Law Review**
*Fall/Spring (1-4) Darian Ibrahim*
Preparation and editing of student notes for the William & Mary Business Law Review; editing of professional articles. Limited to the board and staff members of the Review.

**LAW 766 - Advanced Professional Development II for 2Ls and 3Ls (APD II)**
*Spring 2 Fredric Lederer Prerequisite(s):* LAW 765 OR LAW 765 OR LAW 765 OR LAW 765
Advanced Professional Development is a two semester legal skills course based on simulated (role-played) clients. The course supplies additional experiential lawyering skills and experience to both 2L and 3L students. For purposes of simulated representation, participating students will be divided into two simulated law firms, each with two working groups of four students. Each firm will have a supervising faculty "Senior Partner." Each working group will represent at least two realistic role-played simulated clients. APD II requires APD I and will deal with more advanced and realistic role-played clients than did APD I, with clients ordinarily coming from outside the law school. Each client will require student counsel to interview, negotiate, conduct legal research, and prepare written memoranda. APD II will require student counsel to use creativity and a range of legal mechanisms and procedures to achieve client goals. Time-keeping and (simulated) billing are required. Clients will present occasional professional responsibility issues for student resolution. When the course is fully implemented, student lawyers will also have to use proficiently a wide selection of legal technology. Client representations will be "open-ended," meaning that should unforeseen issues develop in a representation, students must cope with them unless the Senior Partners determine that doing so would not be academically advantageous. Dean Ende will contribute his experience, knowledge and the results of his discussions with law firms and other employers to ensure that the course addresses what employers believe to be deficiencies in many law school graduates. The course curriculum will have input from Dean Ende, Professor Killinger, and Professor Roberts. Grading is Honors, pass/fail.

**LAW 769 - Curricular Pratical Training in Law**
*Summer only 1 Robert Kaplan*
This course is for international JD students in F-1 status who want to engage in paid internships and require Curricular Practical Training (CPT) authorization. Although CPT is not required for unpaid internships, the Reves Center for International Studies strongly recommends credit for unpaid internships. The Law School endorses that recommendation. Prior approval for CPT - for either a paid or unpaid internship - is required from both the University's Designated School Official (DSO) in the Reves Center and Dean Kaplan. Students cannot complete more than 15 paid CPT hours per week during fall or spring semesters. There is no weekly maximum hour limit for summer paid CPT. To apply for CPT authorization, the student and the student's supervisor must complete a CPT Objectives and Site Agreement. A written report by the student of at least five pages and a written evaluation by the student's field supervisor are due by the date in the CPT course syllabus. The syllabus also describes the format and content of the report and the evaluation. Credit earned for this course does not apply toward the total credits required for the JD degree, nor does the credit count toward the total pass/fail credits permitted for graduation. In addition, this course is distinct from credit-bearing externships. Credit earned and hours completed for the CPT course cannot be counted toward an externship, and externship credit and hours completed cannot be counted toward the CPT course. However, a student may earn CPT credit and externship credit for the same internship if the student satisfies the requirement for both courses.

**LAW 770 - Prosecutor Externship**

*Summer/Fall/Spring (1-3) Catherine Bellin*
Eligible placements include state and local prosecutors. Placements with U.S. Attorney offices are covered by the U.S. Attorney Externship. Finalizing an externship requires 3 steps before the registration deadline: (1) securing an externship; (2) submitting a completed Externship Agreement; and (3) registering for the correct course and the correct number of credits. 1-3 credits. Externships are graded Pass/Fail.

**LAW 771 - Public Defender Externship**
*Summer/Fall/Spring (1-3) Robert Kaplan*
Eligible placements include federal, state, and local public defenders. Finalizing an externship requires 3 steps before the registration deadline: (1) securing an externship; (2) submitting a completed Externship Agreement; and (3) registering for the correct course and the correct number of credits. 1-3 credits. Externships are graded Pass/Fail.

**LAW 772 - Washington, DC Semester Externship (3Ls with minimum 3.0 GPA; fall semester only)**
*Fall only 12 Judith Conti*
3Ls With Minimum 3.0 GPA; fall semester only. Eligible placements include federal, state, and local government agencies, courts/judges, prosecutors, public defenders, legal aid offices, or 501(c)(3) organizations in Washington, DC, or the Northern Virginia or Maryland suburbs of DC. Finalizing an externship requires 3 steps before the registration deadline: (1) securing an externship; (2) submitting a completed Externship Agreement; and (3) registering for the correct course and the correct number of credits. 12 credits. Externships are graded Pass/Fail.

**LAW 780 - Veterans' Benefits Clinic I**
*Fall/Spring 3 C. Stone, D. Boelzner*
Puller Veterans Clinic - Disability Compensation and Appeals (DCA)

**LAW 782 - Special Education Advocacy Clinic I (PELE)**
*Fall/Spring 3 Christina Jones*
Open to 2Ls and 3Ls, the Special Education Advocacy Clinic (PELE) I offers eight students the opportunity to assist children with special needs and their families in special education matters. Taught by Professor Crystal Shin. Graded course.

**LAW 783 - Puller Veterans Clinic-Separation,Discharges&Leg Adv (SDLA)**
*Fall/Spring 3 Aniela Szymanski*
This Puller Veterans Clinic - Separations, Discharges and Legislative Advocacy (SDLA) offers students an opportunity to represent veterans in discharge upgrade cases with the Boards of Correction for Military Records and the Administrative Review Boards of the service branches; assist service members in administrative separations when a mischaracterization of service may result; and advocate for legislative policy changes impacting veterans at the state and/or federal level. The clinic will be taught by Professor Aniela Szymanski and Professor Eleyse D'Andrea. There is a required day-long Boot Camp on Friday, August 25th, for those who have not attended previously. Graded course. Open to 2Ls and 3Ls.

**LAW 784 - Elder & Disability Law Clinic I (EDLC I)**
*Fall/Spring (1-3) Helena Mock*
Open to both 2Ls and 3Ls, this clinic will offer ten students the opportunity to practice substantive legal issues affecting the elderly and members of society with disabilities, including estate planning, probate, elder abuse, and guardianships, emphasizing the challenges of identifying the client when there may be diminished capacity. This clinic will be taught by Professors Helena Mock and Erin Smith. Graded course.

**LAW 785 - Innocence Project Clinic II**

*Spring only 3 Frederick Gerson Prerequisite(s):* LAW 747 AND LAW 309 OR LAW 309T OR LAW 308 AND LAW 309

Students in the Innocence Project Clinic II will continue to work on cases assigned in the Innocence Project Clinic I, engaging in more in-depth investigative activities, post-conviction remedies and procedures, and in-class simulations relating to inmate claims of actual innocence. Building on the foundation laid in Innocence Project Clinic I, the in-class portion will focus on client and case specific theories of innocence, and will include skills development in interviewing witnesses, handling ethical issues, organizing investigative tasks, and digesting transcripts, among others. The class is designed such that students will act as intake investigators to determine whether representation of a prisoner's claim of innocence should be undertaken. The work entails understanding core legal concepts relating to criminal trials, reading transcripts, performing legal analysis, and investigating cases in order to determine whether an inmate has a claim worth pursuing. Prerequisites: Innocence Project Clinic I

**LAW 788 - Appellate & Supreme Court Clinic I**

*Fall 3 Tillman Breckenridge*

This clinic will introduce eight students to appellate practice in the federal Courts of Appeals and the United States Supreme Court. Students will work as a team to identify cases suitable for the clinic and then work as pairs to prepare appellate briefs in cases involving the First and Fourth Amendments. In Clinic matters, students will prepare briefs on the merits, amicus briefs, petitions for rehearing or certiorari, appendices, and other appellate filings. For cases in the federal courts of appeals, students will present oral argument when the court allows. Classes will meet every week for general instruction on appellate practice and to discuss draft briefs, petitions, and issues that have arisen in the Clinic's cases. Students will be graded based on the quality of their written product, and when appropriate, oral argument, as well as their level of effort and participation in preparing ancillary appellate materials such as appendices and filing documents. Students will interview for admission into the Clinic with Richmond attorney, Tillman Breckenridge, and there will be a preference for students who have taken Federal Courts or the Appellate Advocacy Track of the Legal Practice Program, though neither is a prerequisite. Graded course. Appellate and Supreme Court Clinic II will be offered in the spring semester for those who choose to enroll and have successfully complete Appellate and Supreme Court Clinic I. Graded course. IMPORTANT!! Participation in this clinic is by application and selection by the professor. To apply, send your resume, transcript and writing sample electronically to Professor Breckenridge at tbreckenridge@baileyglasser.com. Applications will be accepted in early March each year (be on the lookout for the application due date in the Docket Digest), and interviews by Skype or in person will be held in late March. Please note that preference will be given to those students who intend to take Appellate & Supreme Court Clinic II, to be offered in the spring as a three credit graded course, following successful completion of Appellate Clinic I. Clinic is limited to 3Ls and has an enrollment cap of 8 students. To receive credit for this course, each student MUST attend the first meeting.

**LAW 789 - Appellate & Supreme Court Clinic II**

*Spring 3 Tillman Breckenridge Prerequisite(s):* LAW 788

Appellate Clinic II will continue the work of Appellate Clinic I, introducing eight students to a more in-depth look at appellate practice in the federal Courts of Appeals and the United States Supreme Court. Students will continue to work as a team to identify cases suitable for the clinic and work as pairs to prepare appellate briefs in cases involving the First and Fourth Amendments. Students will be graded based on the quality of their written product, and when appropriate, oral argument, as well as their level of effort and participation in preparing ancillary appellate materials such as appendices and filing documents. Successful completion of Appellate Clinic I is a prerequisite. Graded course.

**LAW 790 - Special Education Advocacy Clinic II**

*Fall/Spring 3 Christina Jones Prerequisite(s):* LAW 782
Open to 2Ls and 3Ls, the Special Education Advocacy Clinic (PELE) II is an andvanced clinical experience for up to four students. Students will refine their own advocacy skills by continuing work on their cases, as well as build their leadership, supervision and collaborative skills by mentoring PELE Clinic I students. Taught by Professor Crystal Shin. PELE I is a prerequisite. Graded course. Class time TBD based on student schedules.

**LAW 791 - Virginia Coastal Policy Practicum II**

*Fall/Spring 3 Elizabeth Andrews Prerequisite(s):* OR LAW 679 OR LAW 424
Open to 2Ls and 3Ls, the Virginia Coastal Policy Practicum II allows up to four students the opportunity to work on advanced projects in support of the Virginia Coastal Policy Center. The advanced practicum will be taught by Professor Elizabeth Andrews. VCPC Practicum I, or Climate Change, or Environmental Law is a pre-requisite. Graded course. Class time will be set according to class members' schedules at the start of the semester.

**LAW 792 - CorpSec, Counterintel, Counterespionage,&the Insider Threat**

*Fall (1-3) Robert Trono*
In an evolving global trade environment, corporate America is becoming an increasingly hot target for economic and industrial espionage. Intelligence collectors come from a variety of sources including foreign nation states, industry competitors, and trusted insiders. This course will illustrate this aggressive threat landscape and thoroughly review how intellectual property has emerged as a coveted target for adversaries and the impact those losses have on economic and national security. One of the most potentially damaging actors to both government and private industry comes from the insider threat. This course will delve into the insider threat phenomenon to understand motivating factors, behavioral indicators, and organizational circumstances which contributed to an insider's success. The course will examine Edward Snowden as a case study of insider threat activity and lessons learned in the aftermath of his actions. The course will discuss the many challenges faced by counterintelligence, both in government agencies and the private sector. This includes fundamental issues such as information sharing between public and private sectors, growth in offensive technological advancements, and effective employee screening. As theft of U.S. innovation continues to grow at an alarming rate, many companies have implemented counterintelligence and insider threat mitigation measures within their business framework. The course will also examine the vast legal and regulatory requirements associated to these measures, such as program oversight, employee privacy, program transparency, and prosecutorial authorities. The course will analyze Federal statutes covering economic espionage and theft of trade secrets, the Presidential Executive Order on the Insider Threat and the National Industrial Security Program. The grade will be pass/fail based on a final paper.

**LAW 794 - Corporate Counsel - Legal Issues and Practice Difficulties**

*Spring (1-3) Sharon Owlett Prerequisite(s):* LAW 303 OR LAW 320
The purpose of the course is to provide an introduction to the critical and strategic analysis required to run a successful in-house practice. Students will review problem scenarios in five different areas of corporate operations: management structure, contracts, employment, business integration, and audit. Through analysis and discussion of relevant documents and facts, students will gain an understanding of the multiple and often conflicting considerations that general counsel must weigh and balance in order to provide effective representation. By the end of the course, students should be able to identify stakeholders in corporate interactions and their various interests; be alert to pitfalls impacting counsel's ability to operate; have a basic understanding of fact-finding within the corporate environment; and gain appreciation of counsel's role in advising executives, board members and employees as well as in dealing with external parties such as auditors and outside counsel. Students will be evaluated on a legal and

business analysis of a contract problem involving multiple tiers. The grade will be pass/fail based on a final paper. Completion of Corporations or Business Associations is a prerequisite.

**LAW 797 - War Powers - The National Security Law Constitution**

*Spring 3 Mark Newcomb*

This course will examine the distribution of national security powers amongst the three coordinate branches of government and the development of law and policy governing use of force, military operations, homeland security, intelligence collection, protection of national security information, foreign intelligence surveillance, and contemporary issues in the national security arena. The class is lecture and discussion based, with reading from the Dycus, Berney, Banks & Raven-Hansen's NATIONAL SECURITY LAW; supplemental materials will be assigned and distributed as appropriate. This class will be graded by an examination (80%) and class participation (20%).

**LAW 798 - Puller Veterans Clinic - Military Sexual Trauma (MST)**

*Fall/Spring 3 Elizabeth Tarloski*

Open to 2Ls and 3Ls, the Puller Veterans Clinic - Military Sexual Trauma (MST) offers students the opportunity to learn veterans' disability law and procedure and aid military veterans who are survivors of military sexual assault in the filing, adjudication, and appeal of their disability claims with the VA. In addition, legislative and policy issues will be explored, with students proposing systemic change through legislative and regulatory reforms. Students will also be engaged in the study of the psychological impact of trauma. The course will be taught by Professor Liz Tarloski. There is a required day-long Boot Camp on Friday, August 25th. Graded course.