Introduction

The structure of the Annual Report by the Committee on Graduate Studies (COGS) is as follows:

- a brief introduction, including a discussion of the importance of Arts & Sciences graduate programs to the university
- a list of continuing and new themes and issues facing graduate programs in Arts & Sciences
- a list of highlights of issues discussed and resolved by COGS
- a presentation of Graduate A&S Program Catalog changes that occurred over the past year
- a report on the activities of the Graduate Center
- the A&S Graduate Ombudsperson report to COGS
- appendices

The Importance of Arts & Sciences Graduate Programs to the University

Graduate programs in Arts & Sciences are integral to the mission of the College of William & Mary. As President Reveley often remarks, William & Mary is a research university with the soul of a liberal arts college. W&M awards A&S graduate degrees that are essential for leadership positions in a wide range of careers. The College of Arts & Science is home to eleven highly selective graduate programs that are often recognized as being among the most academically rigorous in the nation. For example, our Early American History doctoral program is ranked 3rd in the US. Our terminal master’s programs in Psychology and Biology are among the strongest research-focused master’s programs in the country. We fight well above our weight category.

We are a university because of our graduate programs. Hence our identity as a Liberal Arts University is just as much tied to graduate excellence as it is to our reputation as an undergraduate liberal arts institution. We must excel at the graduate level and foster a strong sense of community among our graduate students and graduate faculty. The strength of our graduate programs puts us in a select peer group, which helps attract new faculty, students, and staff, as well as instructional, research, and infrastructure resources that would not otherwise be available to us.

The departments and programs with A&S graduate programs award approximately 40% of the undergraduate A&S degrees, are vital in retaining roughly one-half of the A&S faculty, and justify William & Mary’s inclusion in a prestigious peer group of research institutions. In Fiscal Year 2014, faculty members
affiliated with one of the A&S graduate programs generated just over three-quarters of the Facilities & Administrative cost recovery on the main campus. These funds are essential for maintaining the research infrastructure for all W&M faculty.

Our ability to recruit and maintain a strong research-active faculty in several key disciplines depends on the strength of our graduate programs. The inability to recruit sufficient numbers of qualified doctoral students to work with research-active faculty members has caused some faculty members to leave the College. The departure of these research-active faculty members represents a substantial pedagogical and financial loss to the College. The research conducted by A&S graduate programs also enables an appreciable percentage of the undergraduate research opportunities offered on campus. The graduate students help mentor undergraduate researchers and facilitate faculty-undergraduate research collaborations. As undergraduate research is a hallmark of The College, recruiting and supporting research-active graduate students also strengthens our ability to deliver a distinctive undergraduate educational experience. In addition, A&S graduate students enrich the undergraduate program by serving as tutors, writing preceptors, lab and discussion section leaders, teaching assistants, instructors, and graders in courses with high enrollments. As the W&M Promise is implemented, the mentoring and teaching roles assumed by A&S graduate students will increase in both number and importance to help contribute to the success of W&M.

Continuing and New Themes and Issues

Graduate Financial Aid
Graduate student financial support continues to be the most pressing graduate issue in A&S. Historically, financial aid increases for A&S graduate programs have been dependent on irregular and insufficient allocations from the Commonwealth. The College’s budget has never included an annual cost-of-living increase in A&S graduate stipend levels. Thus, A&S graduate financial aid has neither kept up with inflation nor kept up with the aid offered by our peer institutions.

Arts & Sciences is delighted that increases in base funding for graduate stipends are understood as a College priority and that the Office of Graduate Studies and Research has enjoyed significant increases over the past three years in support of the approximately 500 graduate students in A&S. However, the institutions against which we compete have been aggressively increasing the amounts of the financial packages they are offering top candidates.

At the May 1, 2014 meeting of the A&S Committee on Graduate Studies, the nine graduate directors in attendance reported on the results of their recruiting efforts for Fall 2014 admissions. Success stories included Anthropology and Psychology, departments that successfully secured their top candidates; however, American Studies, History, and Physics reported disappointing results. While factors in addition to the composition of financial aid packages figured into candidates’ decisions, the W&M stipend offers were not competitive. In American Studies and History, annual stipends offered by other institutions started at $20,000 with one offer as high as $26,000; all included health insurance coverage and many offers included additional funds for research. In contrast, standard stipends for W&M doctoral students in the humanities currently are set at $19.5K per year, and do not include health insurance coverage or guarantee research funds. Despite an internal decision to increase the annual stipend amount, this past spring (2014) Physics lost one candidate to Texas A&M, two candidates to Brown, one to University of Massachusetts, and one to Indiana University – all institutions offering significantly higher annual stipends to incoming doctoral students.

Stipend increases and the provision of additional financial support are critical in A&S for the following reasons:

- Competitiveness: As graduate student stipends have not kept pace with inflation, A&S graduate programs have shrunk and are currently at their minimum viable size. In terms of our base stipends for graduate students, we are not competitive with our peers; top applicants to all A&S graduate programs are regularly lost to peer institutions offering higher stipends. Our competitiveness is further reduced by the fact that most of the institutions against which we compete for top graduate students offer partial or
full subsidies for graduate student health insurance as an additional form of financial aid, whereas the College does not provide health insurance subsidies to A&S graduate students. Finally, many institutions guarantee research funding as part of the financial package offered to incoming graduate school; W&M does not.

- Diversity: Members of groups traditionally under-represented in academia receive generous graduate financial aid offers from other institutions. Given the present stipends, graduate programs in A&S at W&M struggle to compete with these offers. The recruitment fellowships supported by the Graduate Studies Advisory Board have helped ameliorate this situation, but they are relatively few in number, thus limiting the extent of our outreach efforts.

- Undergraduate teaching and mentoring: A&S graduate students enrich the undergraduate program by serving as tutors, writing preceptors, lab and discussion section leaders, teaching assistants, instructors, and graders in courses with total enrollments of approximately 15,000 undergraduate students annually. In addition, A&S graduate student mentors contribute to the success of undergraduate research in a number of disciplines.

- Faculty retention: In the A&S disciplines that have graduate programs, the faculty cannot maintain their research productivity and their ability to obtain external grant and contract funding at current levels without the participation of highly qualified graduate students.

The Dean of Graduate Studies and Research, the Committee on Graduate Studies, and the Dean of the Faculty of Arts & Sciences have taken the following steps to continue advocacy for increases in A&S graduate student support:

1. The Dean of the Faculty of Arts & Sciences, in collaboration with the Dean of Graduate Studies and Research, has submitted Planning Budget Requests to the Planning Steering Committee in each year of the PSC’s existence requesting further investment in A&S graduate financial aid. These requests were reviewed favorably and led to substantive investments in graduate financial aid, although more is still needed to bring A&S to a nationally competitive level.

2. The A&S Graduate Studies Advisory Board (GSAB) [http://www.wm.edu/as/graduate/about/gradadvisoryboard/index.php](http://www.wm.edu/as/graduate/about/gradadvisoryboard/index.php) enhances the quality of A&S graduate programs in a multitude of ways, including providing support for the following initiatives:
   - Recruitment Fellowships – These fellowships, offered since 2006-07, provide a stipend supplement of $2,500 per year for each of the first two years at W&M. Incoming students of exceptional caliber who represent extraordinary recruitment opportunities are eligible to be nominated for these fellowships.
   - Diversity Fellowships – These fellowships, which began in 2008-09, provide a stipend supplement of $3500 per year for each of the first two years at W&M. The Diversity Fellowships, like the above recruitment fellowships, increase the abilities of A&S graduate programs to recruit outstanding students who are receiving generous offers from competing institutions. Eligibility for this fellowship is interpreted broadly, with a preference for nominees who are members of a group that is underrepresented in the discipline.
   - Distinguished Thesis/Dissertation Awards – These awards were established by the Graduate Studies Advisory Board in 2004-05 to recognize exemplary achievement in graduate student research. In 2013-2014 four W&M graduates received the Distinguished Thesis and Distinguished Dissertation Awards, two each in the Humanities and Social Sciences and the Computational and Natural Sciences.
   - Sponsorship for and participation in the W&M Graduate Research Symposium – The Graduate Studies Advisory Board aided in sponsoring the 2014 Graduate Research Symposium. In addition, two GSAB members sponsored corporate awards of $1000 each to recognize outstanding graduate student research.
   - Sponsorship of the first-ever Commencement reception for graduates from the A&S graduate programs – Chancellor Gates, President Reveley, Provost Halleran, Dean Conley, Dean Torczon,
and Brian Morra, Vice President of the Graduate Studies Advisory Aboard, all attended this reception. President Reveley declared the event a success and requested that the reception make a regular appearance on the Commencement Weekend schedule. Members of the GSAB have agreed to provide the financial support for a repeat at the May 2015 Commencement exercises.

Graduate A&S Recruitment
In the fall of 2013, the College welcomed an impressive group of 127 new A&S graduate students in eleven master’s programs and six doctoral programs. The applicant pool, totaling more than 800 in 2013, has increased by 20% over the past four years. More than 65% of the entering A&S graduate students in Fall 2013 had conducted research projects as undergraduate students, with most receiving awards or Honors for their scholarship. More than a quarter had contributed to their communities through volunteer service, and 60% had been teachers or mentors to pre-schoolers through senior citizens. Approximately 20% of the entering A&S graduate students were international students from six countries.

Graduate Student Research and Travel Funds
In the fall of 2005, a new competition for support of A&S graduate student research travel, fieldwork, and minor research expenses was instituted by the Office of Graduate Studies and Research (OGSR), with the first awards made in spring 2006. The purpose of this Graduate Student Research Grants program is to provide increased funding in support of A&S graduate student research.

As of the fall 2007 semester, continuous enrollment fees from A&S graduate students have provided a stable source of funding for the Graduate Student Research Grant program, enabling this program to be offered predictably each fall and spring semester. To aid graduate students in conducting summer research, a summer funding program was initiated in summer 2009 by the OGSR. In previous years, spring research grants could include funding for summer activities but the funds had to be expended prior to July 1. The OGSR awarded a total of $5,808 to 20 graduate students in Fall 2013, $3,263 to 12 A&S graduate students in Spring 2014, and $3,480 to 21 A&S graduate students in Summer 2014. The maximum award was $300. While students appreciate this financial support for their research, there is a substantial unmet need for larger amounts in support of substantive research projects, particularly those that involve travel.

The OGSR and the W&M student activities office provide support for the A&S Graduate Student Association (GSA) Supplemental Conference Fund. The GSA is responsible for the application and selection process for conference travel funding, with priority given to students who are presenting at a conference. Since conference travel funds for A&S graduate students remains another substantial unmet need, starting in Spring 2014 the OGSR raised the cap for each type of supplemental conference travel award by $100; further information can be found on the Conference Funding webpage maintained by the A&S GSA at http://wmpeople.wm.edu/site/page/gsa/conferencefunding. The OGSR provided $3,434 for 17 awards in fall 2013, $6,400 for 15 awards in spring 2014, and $5,738 for 17 awards in summer 2014.

A&S Graduate Studies Advisory Board
The A&S Graduate Studies Advisory Board (GSAB), created in 2004, closed out FY2014 with eighteen community, business, and education leaders whose goal is to advocate for and support A&S graduate programs. The Graduate Studies Advisory Board met on campus October 26-27, 2013, held a teleconference on January 24, 2014, met again on campus March 21-22, 2014, and held a second teleconference on June 19, 2014. During their June teleconference, board members elected to modify their by-laws to include participation by two A&S graduate students, one from the Computational and Natural Sciences and one from the Humanities and Social Sciences, selected by their peers in elections conducted by the A&S Graduate Student Association.

The GSAB spring meetings and the Graduate Research Symposium were coordinated to be held on the same weekend in March. Board participation in symposium events was 100%, including four Board members who served on the judging panel for the awards and six Board members who chaired sessions at
the symposium. Several members also attended oral and poster sessions and were involved in informal career mentoring and networking at the symposium reception and the awards luncheon. Committee on Graduate Studies members were invited to attend the evening reception for the spring 2014 Board meetings to discuss their perspectives on the strengths and needs of A&S graduate programs.

At their March meeting, members of the GSAB reaffirmed their support of the construction of a Graduate Studies Reading Room in Swem Library, in collaboration with Dean Carrie Cooper. The new Graduate Studies Reading Room will provide a centralized place for quiet individual and group study, much needed especially in the humanities and social sciences where there is little space in current departmental and programmatic facilities for such activities. It is expected that the installation of the Graduate Studies Reading Room, which is to be located on the second floor of Swem Library, will be finished before the start of the fall 2015 semester.

The GSAB also voted unanimously to renew efforts to increase their membership, to set more aggressive fundraising goals, to take a more active advocacy role on behalf of A&S graduate students, and to continue their efforts to provide career and professional mentorship to A&S graduate students.

**S. Laurie Sanderson Awards for Excellence in Undergraduate Mentoring**

In the spring of 2009, the A&S Graduate Studies Advisory Board and the A&S Committee on Graduate Studies voted unanimously in support of the Board's concept for initiating these annual awards to A&S graduate students in recognition of outstanding undergraduate mentoring in scholarship and research outside of classroom teaching. Undergraduate mentoring includes, among other examples, graduate students who mentor undergraduates in the context of the undergraduate students' senior theses, honors theses, writing projects, term papers, or research in a laboratory, field site, museum, or archive. Undergraduate students and faculty collaborate to nominate graduate students. Three awards of $250 were presented at the 2014 Graduate Research Symposium’s awards luncheon on March 22, 2014 drawing more undergraduate students and faculty to the symposium and increasing visibility for the important contributions of graduate students in mentoring undergraduate students in scholarship and research.

**Carl J. Strikwerda Awards for Excellence**

In the spring of 2011, the A&S Graduate Studies Advisory Board and the A&S Committee on Graduate Studies voted unanimously in support of the Board's concept of initiating the annual Carl J. Strikwerda Award for Excellence in the Humanities and Social Sciences and the Carl J. Strikwerda Award for Excellence in the Natural and Computational Sciences in the amount of $250 each for an outstanding written paper by a W&M A&S student who is engaged in thesis research/scholarship to earn an MA, MS, or MPP degree. Three awards were presented at the 2014 Graduate Research Symposium Awards Luncheon to Master’s students who submit symposium written papers that are judged to be outstanding by a ranking panel of faculty and GSAB members.

**COGS Highlights**

Members of the Arts & Sciences Committee on Graduate Studies met six times during Fall 2013, nine times during Spring 2014, and for two days on May 21-22, 2014 for their first-ever May Seminar. A summary of highlights from these meetings includes:

- Preliminary discussions with the University Archivist and other key members of the Swem Library staff to discuss a move to electronic submission, filing, and dissemination of theses and dissertations by Arts & Sciences students.
- Resumption of oversight authority to the Dean of Graduate Studies and Research for A&S graduate students seeking medical leaves, medical withdrawals, and medical clearances from the Dean of Students.
• A review of the results from an October 2013 survey of graduate students in A&S, the goal of which was to assess the extent of student interest with regard to the following four possible initiatives: 1) the installation of a Graduate Student Reading Room in Swem Library; 2) an increase in the maximum stipends awarded by the Office of Graduate Studies and Research (OGSR) to A&S graduate students for conference travel; 3) an increase in the maximum research award made by the OGSR to A&S graduate students in support of their research projects; and 4) the creation by the OGSR of a speaker fund to bring in more guest speakers.

• A survey of the way in which the eleven graduate programs in A&S handle the mentoring and monitoring of their students and a discussion of best practices with regards to regularized annual review processes.

• A revisiting of an earlier COGS decision to allow only TOEFL scores to be used by international students applying to A&S graduate programs to demonstrate proficiency in English for those applicants for whom English is a second language. The consensus reached was to also accept test results from the International English Language Testing System (IELTS) and to regularize the process by which exemptions are submitted for applicants who have successfully passed classes in English at other colleges or universities.

• A discussion with Deb Love, University Counsel, regarding best practices for the withdrawal of students from graduate programs in A&S. This discussion included Marjorie Thomas, Dean of Students, as well as Ben Boone, Assistant Dean, Enrollment Support and Transfer Student Services, since the Office of the Dean of Students handles medical leave, medical withdrawal, and medical clearance requests for all students at the College.

• A visit from Mary Schilling, Assistant Vice-President for Student Affairs & Executive Director of Career Development, Don Snyder, Associate Director, and Wendy Webb-Robers, Director, Programs and Services, to discuss what programs and events the Cohen Career Center staff have instituted to support the professional development of A&S graduate students.

• Follow-up break-out sessions with COGS members meeting with the Cohen Career Center staff member assigned as the point of contact for their graduate program to discuss how better to coordinate professional development activities for A&S graduate students.

• A discussion regarding the capture of consistent placement data for graduates from the eleven A&S graduate programs in an effort to standardize reporting.

• The discussion of a submission to the Charles Center May Seminar Call for Proposals in support of a careful review of the requirements for graduate degrees earned in the College of Arts & Sciences.

Of particular note is that the proposal submitted to the Charles Center was accepted and members held their first-ever May Seminar to review degree requirements for the A&S graduate programs. Visitors invited to participate in this review included Chasity Roberts, Assistant to the Dean of Graduate Studies and Research, Wanda Carter, Registrar & Administrator of Graduate Student Services for the A&S Office of Graduate Studies and Research, Cory Springer, Senior Assistant Registrar in the Registrar’s Office, and Kathy Larrieu, Web Specialist, College of Arts & Sciences. The first day was spent looking at general degree requirements; the following was spent reviewing the decisions made the previous day and then considering degree requirements specific to individual programs. Substantive changes to the requirements for graduate degrees earned in A&S were proposed. Those that passed during the May Seminar discussions are included in the catalog changes detailed in the section that follows. Others were deferred to the Fall 2014 COGS meetings to allow members to consult with their colleagues before a final discussion and vote. In addition, members agreed to the suggestion that, now that the Arts & Sciences Graduate Catalog is online, non-regulatory information regarding graduate programs in A&S and graduate life on campus be separated out and posted elsewhere on the webpages of either the OGSR or the graduate departments and programs for which this information pertains. Kathy Larrieu bravely volunteered to undertake this process with the cooperation of the Graduate Directors for each of the eleven A&S graduate programs and the help of Cory Springer.

For those members of the Faculty of Arts & Sciences interested in further details, upon request copies of the COGS minutes are available from the Office of Graduate Studies and Research.

11/12/2014
Course Approvals and Revised Degree Requirements

Biology
The following changes were approved by COGS vote on October 3, 2013.

DEGREE REQUIREMENTS – MA (non-thesis)
Non-thesis M.A. students must complete 32 semester hours of courses at least 20 of which must be numbered in the 600s. 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 the College of William and Mary after admission to the graduate program. 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). M.A. students may take up to 3 credits of research, as BIOL 690, toward their M.A. degree. M.A. students must also pass a Graduate Student Qualifying Examination.

DEGREE REQUIREMENTS – MS
An M.S. degree requires 24 credits plus one credit of BIOL 700 (Thesis), generally taken during one’s last semester. A cumulative grade point average of 3.0 or better must be earned for all courses counted toward the degree requirements. A candidate must complete 15 semester hours of coursework numbered either in the 500s or 600s; excluding BIOL 695. Within these 15 semester hours, every student must successfully complete BIOL 601 (Introduction to Graduate Studies) during their first year in the program. Students must also register for at least one credit of Colloquium (BIOL 685). Up to 3 credits of BIOL 685 can count toward the required 15 semester hours. In addition, 9 credits of BIOL 695 (Graduate Research) are required. Thesis students are strongly encouraged to complete their course requirements before the beginning of their fourth semester.

The following changes were approved by COGS vote on April 10, 2014.

DEGREE REQUIREMENTS - MS
To ensure timely completion of the M.S. degree, students matriculating in the fall must have their research advisor selected by Nov. 1st and a thesis committee selection form submitted to the Biology Office by November 15th. 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 30th within the first year of residency. It is recommended that the comprehensive exam be scheduled before April 1st. 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 their likely research advisor and approved by the Graduate Program Director. Permission for a M.S. student to change to the M.A. program will be given only under extraordinary circumstances and will require repayment of funds received by the student in support of summer research.

COURSE ADDITION
Prerequisites: Equivalent of BIOL 220, BIOL 302 or 304, and MATH 111/131 or permission of instructor
Credit Hours: 3
Course Description: 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.
Chemistry
The following changes were approved by COGS on October 3, 2013.

COURSE NAME AND NUMBER CHANGES:
602. Advanced Inorganic Chemistry

604. Advanced Analytical Chemistry

The following changes were approved by COGS on October 31, 2013.

COURSE NAME AND DESCRIPTION CHANGES:
The Chemistry Department offers graduate study and research leading to a Masters degree. Faculty members in the Applied Science Department, Chemistry faculty members may supervise the dissertation research of Applied Science Ph.D. degree candidates. The department consists of sixteen faculty with research interests in all the major subdisciplines of chemistry. The intimate scale of the Masters degree programs in chemistry creates professionally advantageous opportunities for students with a wide variety of backgrounds and career objectives. Faculty members work closely with students to tailor the program to their individual needs.

Students are provided with full tuition waivers as well as teaching and/or research assistantships. The program usually takes no more than 24 months and enables students to fortify their academic background in chemistry while conducting publishable research in close collaboration with faculty. The department maintains a wide range of instrumentation used by students in their research. Classes are typically very small and can be taken in all major subdisciplines of chemistry, as well as related fields of science. Most graduate students have opportunities to mentor undergraduates and present their results at local and national meetings. Some students earning a Masters degree in chemistry will go directly to industrial positions with a strong career trajectory or continue their education in quality Ph.D. programs. Recent graduates are attending Northwestern University, Purdue University, the University of California at San Diego and the University of Texas at Austin. Other students use the program as a stepping-stone to professional degree programs in education, law and medicine.

Faculty
CHAIR Christopher J. Abelt Professor (Ph.D., California, Los Angeles).
GRADUATE DIRECTOR Deborah C. Bebout Professor (Ph.D., Cornell).
PROFESSORS Robert J. Hinkle (Ph.D., Utah), Lisa M. Landino (Ph.D., Virginia), Robert D. Pike (Ph.D., Brown), and John C. Poutsma (Ph.D., Purdue).
ASSOCIATE PROFESSORS Carey K. Bagdassarian (Ph.D., California, Los Angeles), Randolph A. Coleman (Ph.D., Purdue), Elizabeth J. Harbun (Ph.D., North Carolina-Chapel Hill), and Gary W. Rice (Ph.D., Iowa State).
ASSISTANT PROFESSORS William R. McNamara (Ph.D., Yale), Tyler K. Meldrum (Ph.D., California, Berkeley), Jonathan R. Scheerer (Ph.D., Harvard), Kristin L. Wustholz (Ph.D., Washington), and Douglas D. Young (Ph.D., North Carolina State).

PROFESSORS EMERITA Cirila Djordjevic (Ph.D., University College)

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

General
The graduate degree programs in Chemistry are designed to flexibly prepare students for their choice of doctoral programs, careers in industry, or medical and other professional degree programs. Graduate students actively participate in the Analytical, Biochemical, Inorganic, Organic, Physical or Polymer research programs of the faculty, producing high-quality, publishable results. In consultation with their research supervisors, students select courses complementing their research and professional interests from chemistry or related fields, especially biology, applied science, and marine science. Thesis-based degree programs include an accelerated joint/combined B.S./M.S. degree in Chemistry, a traditional M.S. in Chemistry, and an M.S. in Environmental Chemistry offered in cooperation with the School of Marine Science. Programs leading to a A thesis is not required for the M.A. in Chemistry nor the combinedjoint M.S. in Chemistry/Ph.D. in Applied Science, however the later requires a dissertation (See full description of Ph.D program in Applied Science) or a M.A. in Chemistry do not require a Thesis. An
Admission

All applicants must submit scores for the aptitude portions of the Graduate Record Exam. The subject portion (Chemistry) is recommended but not required. Admission to the M.S. in Chemistry/Ph.D. in Applied Science program will be made by a joint departmental committee.

Matriculating undergraduates interested in the accelerated combined B.S./M.S. degree program should contact the Chemistry Department when they arrive for advising. Chemistry concentrators may apply for formal admission to the joint-accelerated combined degree program in the second semester of their sophomore-junior year. Applicants must have completed the first two years of chemistry as well as the physics and math prerequisites before their 3rd year, completed all non-chemistry courses required for the B.S. degree before the 4th year, need no more than one undergraduate chemistry course and an associated lab to complete their B.S. degrees in the 4th year, and they must possess an overall GPA average of 3.0 and a 3.0 in chemistry courses.

The Graduate Admissions Committee of the Chemistry Department solely considers admission to the Chemistry M.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.

Degree Requirements for the Master of Science

(See general College requirements in the section entitled 'Graduate Regulations' in this catalog.)

A candidate for the degree of Master of Science in Chemistry:

• shall make a selection of graduate courses under the guidance of a departmental advisor; undergraduate courses may have to be taken or repeated in those areas where adequate preparation appears to be lacking;
• must attend the Graduate Seminar (CHEM 665) during each full-time semester in residence until Research Graduate status is established, and must give two oral presentations as part of his or her Graduate seminar program;
• must acquire at least twelve semester credits (with a minimum of six credits in Chemistry not including 665 or 700) in 600 level courses;
• must prepare a Thesis based upon research carried out under the guidance of a staff member;
• must pass a comprehensive oral examination based upon the entire work done for graduate credit and after approval of the thesis by an examining committee.

Degree Requirements for the accelerated combined Master of Science/Joint B.S./M.S. Program

(In addition to the general College requirements)

Students must maintain an overall GPA average of 3.0 and a 3.0 in chemistry courses through their 3rd year. All non-chemistry courses required for the B.S. degree must be completed before the 4th year. During the fall semester of the 4th year, students may take no more than one undergraduate chemistry lecture course and an associated lab course to complete their B.S. degree. All B.S. degree requirements must be completed before the second semester of the student’s 4th year. Students must begin the research leading to their Master’s Thesis the summer following their 3rd year. They are required to continue full time research the summer following their 4th year. They will complete the graduate coursework during their 4th year and be enrolled in graduate research. The remaining requirements are the same as for the Degree of Master of Science.

Degree Requirements for the combined Master of Science Chemistry, M.S./Joint Ph.D. Program in Applied Science, Ph.D.

(See general College requirements in the section entitled 'Graduate Regulations' in this catalog.)

Opportunities for graduate study with Chemistry faculty members beyond the Master of Science degree are possible through the affiliation of Chemistry faculty members with the Applied Science Department. Prospective doctoral students are strongly encouraged to open an email dialogue with those members of the Chemistry faculty whose research is of most interest to confirm availability of both of projects suitable for dissertation research and of sufficient financial aid. A candidate for the combined degrees of an Master of Science M.S. in Chemistry in the joint and a Ph.D. in program with Applied Science is initially admitted to the graduate program in Chemistry. Following satisfactory completion of one to three semester(s) of graduate coursework and research, with the approval of their Research Advisor Chemistry M.S. degree candidates interested in continuing their graduate research projects at the doctoral level may apply for admission to the Applied Science Ph.D. degree program with approval of their Research Advisor. In addition to the combined Chemistry M.S./Applied Science Ph.D. described here, students interested in research toward pursuing a Ph.D. with the supervision of a member of the Chemistry faculty may apply directly for admission to the Ph.D. program in Applied Science.
Students pursuing the combined Chemistry, M.S./Applied Science, Ph.D. degrees must discuss educational goals with their Research Advisors to ensure a coherent coursework planning that satisfying the requirements of both degree programs. For admission to the Ph.D. program in Applied Science from the M.S. program in Chemistry, the candidate must pass a comprehensive qualifying exam demonstrating competence in his or her field of study and all parts of the core Applied Science sequence (APSC 603, 604, 607 and 608) from which they are not formally exempt, must satisfy the course requirements specified by the Applied Science Ph.D. program. The comprehensive exam for the Applied Science Ph.D. will can be used to satisfy the comprehensive exam for the M.S. degree. A typical schedule of courses for the combined Chemistry M.S./Applied Science Ph.D. degree program is shown below. No thesis is required for the M.S. degree in Chemistry if a student elects to pursue a Ph.D. in Applied Science and is accepted into the doctoral program in Applied Science.

Year 1, Summer
- Chemistry research (CHEM 695, optional, variable credit)

Year 1, Fall
- APSC 603 Introduction to Scientific Research I (2 credits)
- APSC 607 Mathematical and Computational Methods I (4 credits)
- An elective chemistry course, preferably applied chemistry (3 credits)
- CHEM 695 Chemistry research (CHEM 695, variable credit)
- CHEM 665 Chemistry seminar (CHEM 665, 1 credit)

Year 1, Spring
- APSC 604 Introduction to Scientific Research II (2 credits)
- APSC 608 Mathematical and Computational Methods II (4 credits)
- An elective chemistry course, preferably applied chemistry (3 credits)
- CHEM 695 Chemistry research (CHEM 695, variable credit)
- CHEM 665 Chemistry seminar (CHEM 665, 1 credit)

Year 2, Summer
- Summer Graduate Chemistry Research (CHEM 695, variable three credits)

Year 2, Fall
- Additional elective courses (8 or more credits)
- Chemistry research (CHEM 695, variable credit)
- Chemistry seminar (CHEM 665, 1 credit)

Degree Requirements for the Master of Science in Environmental Chemistry
(See general College requirements in the section entitled 'Graduate Regulations' in this catalog.)

A candidate for the degree of Master of Science in Environmental Chemistry shall make a selection of graduate courses under the guidance of the chemistry graduate director and must complete the following Chemistry and Marine Science courses:

- CHEM 309 Instrumental Analysis
- CHEM 604 Advanced Analytical Chemistry
- CHEM 665 Graduate Seminar
- MSCI 563 Environmental Chemistry

Of the remaining required credits, at least two courses must be in Chemistry.

Degree Requirements for the Master of Arts
(See general College requirements in the section entitled 'Graduate Regulations' in this catalog.)

A candidate for the degree of Master of Arts in Chemistry must satisfy all of the requirements for the M.S. degree except for the Thesis. In addition the candidate must acquire 8 additional credit hours in courses numbered 600 and above.

The following changes were approved by COGS on March 13, 2014.

COURSE ADDITION:
519. Bioinorganic Chemistry.
Prerequisites: CHEM 414 or BIOL 414
Credit Hours: 3
Course Description: 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.
The following changes were approved by COGS via email vote on July 1, 2014.

**COURSE DESCRIPTION CHANGE:**
695. Directed Research.
The grading format of CHEM 695 Directed Research will be changed from P/F to letter grades effective Fall 2014. The maximum number of CHEM 695 credits that can be counted towards a graduate degree will remain at seven.

**History**
The following changes were approved by COGS on December 5, 2013.

**COURSE NAME AND DESCRIPTION CHANGES:**

For nearly eighty years, the Lyon G. Tyler Department of History Graduate Program in History has been offering students a unique opportunity to pursue Master’s and Doctoral Degrees. Named for Lyon Gardiner Tyler, the College’s seventeenth president, and the son of the nation’s 10th president, William & Mary’s Department of History is the oldest history department in the United States. Its moderate size, dedicated faculty, and distinctive history give the department a unique character among public institutions, and create a learning environment that fosters close interaction among students and teachers. The department’s graduate program offers a Ph.D. in Early American and U.S. History, as well as Master’s Degree Programs in Early American, U.S. and Comparative and Transnational History. The Program prides itself on its commitment to preparing broadly trained faculty who are leaders in their fields of specialty. The topics of recent dissertations have ranged from Loyalists, Indians, and Slaves in the Deep South during the American Revolution to Race, Gender and Film Censorship in the New South. The program prepares students to be teachers and scholars, while also offering training for careers as editors and historical archaeologists, and as public history professionals in historical societies, libraries and museums. The Program’s excellent placement record is testament to its success.

See [http://www.wm.edu/as/history/gradprogram/placement/index.php](http://www.wm.edu/as/history/gradprogram/placement/index.php).

The Department of History also offers a unique opportunity for students in the master’s and doctoral programs to obtain practical experience in a variety of history-related career fields by competitively awarding apprenticeships in the following areas: Archives and Manuscript Collections, Editing of Historical Books and Manuscripts, Humanities Computing, International Studies, and Vernacular Architecture. All doctoral students do intensive teacher training. Graduate students also benefit from the Department’s close association with the American Studies Program, the Omohundro Institute for Early American History and Culture, the National Institute of American History and Democracy, the Colonial Williamsburg Foundation, the Wendy and Emery Reves Center for International Studies, Swem Library, and the Center for Archaeological Research, among many other local historical institutions of national importance.

**Faculty**

CHAIR Leisa D. Meyer Associate Professor (Ph.D., Wisconsin-Madison).

GRADUATE DIRECTOR James P. Whittenburg William E. Pullen Professor (Ph.D., Georgia), Brett Rushforth Associate Professor (Ph.D., California-Davis).

UNDERGRADUATE DIRECTOR Frederick Corney Harrison Associate Professor (Ph.D., Columbia).

PROFESSORS Melvin P. Elly Kenan Professor (Ph.D., Princeton), Christopher Grassio (Ph.D., Yale), Cindy Hahamovitch (Ph.D., North Carolina-Chapel Hill), Ronald Hoffman (Ph.D., Wisconsin-Madison), LuAnn Homza (Ph.D., Chicago), Scott R. Nelson Leslie & Naomi Legum Professor (Ph.D., North Carolina-Chapel Hill), and Carol Sheriff (Ph.D., Yale), and James P. Whittenburg William E. Pullen Professor (Ph.D., Georgia).

VISITING Distinguishing Professor Robert E. Engs Visiting Harrison Professor (Ph.D., Yale).

ASSOCIATE PROFESSORS Kveta E. Benes Clark G. and Elizabeth H. Diamond Associate Professor of History (Ph.D., Washington), Chandos M. Brown (Ph.D., Harvard), Philip Daileader (Ph.D., Harvard), Andrew H. Fisher (Ph.D., Arizona State), Hiroshi Kitamura (Ph.D., Wisconsin-Madison), Betsy O. Konefal (Ph.D., Pittsburgh), Laurie S. Koloski (Ph.D., Stanford), Kathryn Levan (Ph.D., Chicago), Paul Mapp (Ph.D., Harvard), Charles McGovern (Ph.D., Harvard), Brett Rushforth (Ph.D., California-Davis), Ronald B. Schechter (Ph.D., Harvard), Robert T. Vinson (Ph.D., Howard), Karin Wulf (Ph.D., Johns Hopkins), and Chitralekha Zutshi (Ph.D., Tufts).

ASSISTANT PROFESSORS Fahad Bishara (Ph.D., Duke), Gerard Chouin (Ph.D., Syracuse), Eric Han (Ph.D., Columbia), Ayfer Karakaya Stump (Ph.D., New York University), James Le Fleur (Ph.D., Virginia), Kathryn Levitan (Ph.D., Chicago), Matthew Mosca (Ph.D., Harvard), Nicholas Popper (Ph.D., Princeton), Jeremy Pope (Ph.D., Harvard), and Fabricio Prado (Ph.D., Emory), and Hannah Rosen (Ph.D., Chicago).

ADJUNCT ASSOCIATE PROFESSOR Carl Lounsbury (Ph.D., George Washington).

VISITING ASSOCIATE PROFESSOR Susan A. Kern (Ph.D., William & Mary)

11/12/2014
VISITING ASSISTANT PROFESSORS Jody Allen (Ph.D., William & Mary), Guillaume Aubert (Ph.D., Tulane), Hwisang Cho (Ph.D., Columbia), Celeste McNamara (Ph.D., Northwestern), Paul Polgar (Ph.D., City University of New York) and Julie Richter (Ph.D., William & Mary), and Elena Schneider (Ph.D., Princeton).
LECTURERS Marley R. Brown III (Ph.D., Brown), Cary Carson (Ph.D., Harvard), Charles F. Hobson (Ph.D., Emory), James Horn (Ph.D., University of Sussex), Kevin P. Kelly (Ph.D., Washington), Fredrika Teute (Ph.D., Johns Hopkins), and Lorena S. Walsh (Ph.D., Michigan). Nadine Zimmerli (Ph.D., University of Wisconsin-Madison).

1 Editor, William and Mary Quarterly, Omohundro Institute of Early American History and Culture  Dean for Educational Policy
2 Director, Omohundro Institute of Early American History and Culture  Book Review Editor, William and Mary Quarterly, Omohundro Institute of Early American History and Culture
3 Book Review Editor, William and Mary Quarterly, Omohundro Institute of Early American History and Culture  Director, Omohundro Institute of Early American History and Culture
4 Director of the Williamsburg Collegiate Program in Early American History, Material Culture, and Museum Studies
5 NEH Fellow in the Omohundro Institute of Early American History and Culture
6 Vice President of Research, The Colonial Williamsburg Foundation
7 Editor, John Marshall Papers
8 Vice President of Research and Abby and George O’Neill Director of the John D. Rockefeller Jr. Library
9 Historian, Department of Historical Research, The Colonial Williamsburg Foundation
10 Historian, Department of Historical Research, The Colonial Williamsburg Foundation
11 Assistant Editor, Book Publications, the Omohundro Institute of Early American History and Culture

General Description
The History Department offers a Doctoral Program in Early American and United States History, and a Masters program with specialization in Early American, United States, and Comparative and Transnational History. Doctoral students develop a minor field in a non-US geographic area such as Africa, Britain, or Latin America History or a comparative/transnational theme such as the Slave Trade, the Atlantic World or Comparative Revolutions as well as a thematic field in subjects such as African American labor, or women’s/gender history. Ph.D. students may do research in all sub-fields of American or U.S. history, including, but not limited to, Native American history, women’s history, international relations, African American history, labor history, social history, cultural history, political history, and the history of sexuality. A distinguishing characteristic of our program is its apprenticeship and internship opportunities (please see below).

(See general College requirements in the section entitled ‘Graduate Regulations’ in this catalog.)

Admission
A required supplemental application is available on the department’s web page at www.wm.edu/history. Applicants must submit official undergraduate transcripts, three letters of recommendation, and official copies of scores from the Graduate Record Examination. A writing sample is required. A separate application is not necessary for financial aid. For full consideration, completed applications must be postmarked by December 5, 2012 for the Masters and Ph.D. programs in American and U.S. History and the Comparative and Transnational Master’s program. Applications submitted after the deadline must be mailed and 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.

Degree Requirements for the Master of Arts
(See general College requirements in the section entitled ‘Graduate Regulations’ in this catalog.) Candidates admitted to the M.A. Program as full-time students must be in full-time residence for at least two semesters and must complete all requirements by the deadline specified in the department’s graduate regulations. Those admitted as part-time students must complete all degree requirements within six years of starting the program. All masters students must complete 24 credit hours of coursework, not including credits for HIST 700. For Early American and U.S. History students, these 24 credit hours will include HIST 701, 702, a research seminar (HIST 710 or 711), two courses in directed research (HIST 758), and electives. For Comparative and Transnational History students, the 24 credit hours will include HIST 701, a research seminar (HIST 713), at least one readings course in comparative history (HIST 720), two courses in directed research (HIST 758), and electives. Students must achieve a grade point average of at least 3.0 on a 4.0 scale. Candidates must demonstrate by departmental examination a reading knowledge of a foreign or classical language in which there is a significant historical literature; must pass a comprehensive examination; and must submit a thesis approved by his/her thesis committee.
Apprenticeship and Internship Programs
In addition to traditional preparation in research, the Department of History in conjunction with the Omohundro Institute of Early American History and Culture, the Earl Gregg Swem Library, the Wendy and Emery Reves Center for International Studies, the Department of Anthropology, the Center for Archaeological Research, and the Colonial Williamsburg Foundation offers a unique opportunity for masters and first-year doctoral students to obtain practical experience in career fields related to history. Apprenticeships are available in archives and manuscript collections, the editing of historical books and magazines, international studies, humanities computing, and historical architecture. Apprenticeships commence on July 1, August 1, or late August of each year and extend to May 15 or June 30 of the succeeding year. The History Department also requires doctoral students to participate in a teaching internship that provides supervised experience in teaching college classes.

Degree Requirements for the Doctor of Philosophy
(See general College requirements in the section entitled 'Graduate Regulations' in this catalog.) At least one and a half years of coursework (not including courses taken for the M.A. degree) are required for the Doctor of Philosophy degree. Doctoral students must complete all requirements for the Master of Arts degree, including the language requirement, the thesis, and all course work, at William and Mary, or have fulfilled similar requirements at an equivalent institution by March 15 of their second year in residence (or first, in the case of students who received their M.A. elsewhere). Doctoral students with a masters degree from an equivalent institution are also required to pass the language exam at William and Mary by March 15 of their first year in residence. In addition, candidates for the Ph.D. degree must complete at least 27 hours of graduate coursework in History (not including HIST 800) beyond the masters level within the first three semesters of residency. They must take research seminars in two separate fields of history and pass a language exam. A student who has taken required courses in the masters year need not repeat them at the doctoral level. No later than the end of the third year of graduate study, doctoral students must take a written and an oral comprehensive qualifying examination in Early American history, United States history, one thematic field, and one minor field (see above). To qualify to take the comprehensive examinations, students must have completed all coursework and any outstanding requirements by the end of the previous semester. See the History Department’s graduate regulations for a list of pre-approved fields.

Description of Courses
Courses listed in this catalog are not offered every academic year. Please consult the website www.wm.edu/history and/or the department office for the current listing of courses offered. Unless otherwise noted, all courses are graded using standard grading [A, B, C, D, F] scheme (See VI. Grading and Academic Progress in the section entitled ‘Graduate Regulations’ in this catalog) and may not be repeated for credit (See Repeated Courses requirements in the section entitled ‘Graduate Regulations’ in this catalog).

Fall and Spring (3,3) Staff.
An independent study course that may be repeated for credit as long as there is no duplication of material.

503. Colonial Virginia.
Fall and Spring (3,3) Staff.
A specialized study of the founding and development of the Virginia colony with special emphasis on the evolution of its social and political structure.

504. France in North America.
Fall or Spring (3) Staff.
An exploration of the French presence in North America from the sixteenth-century voyages of Verrazano and Cartier to the fall of Quebec in 1759, the growth of settlement and empire from Canada to Louisiana, and relations with the Indians.

55118. U.S. Gilded Age.
Fall or Spring (3) Nelson.
1866-1901. Explores the collapse of Reconstruction and the rise of big business. Topics include Victorian sexuality, the Jim Crow South, craft unionism, cities in the West and literary naturalism.

Fall (3) Kitamura.
An examination of U.S. interactions with the wider world from 1763 to 1900. Topics include top-level policymaking, business exchange, cultural interaction, population movement, military confrontation, social control, racial affairs, and gender relations.

Fall or Spring (3,3) Kitamura.
An examination of U.S. interactions with the wider world from 1901 to the present day. Topics include top-level policymaking, business exchange, cultural interaction, population movement, military confrontation, social control, racial affairs, and gender relations.
59337. American Cultural and Intellectual History from the Beginnings through the Early National Period.
Fall (3) C. Brown.
An interdisciplinary approach to the development of colonial and early national American culture and society, with special emphasis on the transit of European culture, regionalism and the emergence of the ideology of American exceptionalism.

59438. American Cultural and Intellectual History from the Early National Period through the Early 20th Century.
Spring (3) C. Brown.
An interdisciplinary approach to the development of colonial and early national American culture and society. Explores the social construction of knowledge, race, gender and class in the 19th- and early 20th-century United States, through an intensive reading of primary sources.

541. The Caribbean.
Fall or Spring (3,3) Konefal.
A survey of the colonial history of the region followed by an analysis of the economic, social and political developments of the nineteenth and twentieth centuries in the major island and mainland states.

547. Crises of European Society.
Fall or Spring (3,3) Popper.
Selected aspects of early modern Western society, including (for example) the social and economic foundations of Renaissance culture; poverty, crime, and violence; revolution and rebellion; death, disease, and diet; humanism and reform; witchcraft, magic, and religion; the new cosmography.

559. Problems in Modern History.
Fall or Spring (3,3) Staff. This course may be repeated for credit if there is no duplication of topic.

571. Contemporary Russia.
Fall or Spring (3,3) Corney.
A seminar on topics in Russian history, 1953 to the present. Themes include the legacy of the Stalin era and issues of continuity and change in the post-Stalin years. The collapse of the Soviet Union and the problems of post-Communist Russia are also examined.

572. The Russian Revolution.
Fall or Spring (3,3) Corney.
The origins, course, and impact of revolution in twentieth-century Russia, c. 1905-1953. Considerable use is made of primary materials. Themes include the dilemmas of late imperial Russia, the impact of modernization and war, and the issue of totalitarianism.

577. History of Mexico.
Spring (3) Konefal.
Development of the Mexican nation from the Spanish conquest to the present. Sequential treatment of the interaction of Spanish and Indian cultures, expansion of the frontier, independence, nineteenth-century liberalism and caudillism, the Mexican Revolution of 1910 and its institutionalization.

590, 591. Topics in History.
Fall and Spring (3,3) Staff. This course may be repeated for credit if there is no duplication of topic.
Topics change each year. Please consult the website www.wm.edu/history and the department office for the current listing of topics offered.

600 - 687. Readings Courses.
Fall and Spring (3,3) Staff.
Readings courses in fields as indicated by course title. These courses are open only to candidates for advanced degrees. Instructor may require students to audit relevant undergraduate lectures and take a final exam.

607. Introduction to Historical Archaeology & Material Culture.
Summer (0) Staff. Graded Pass/Fail. This course may be repeated. Prerequisite: permission of instructor.

Fall or Spring (3,3) Homza.

615, 616. European History, 1648-1871.
Fall and Spring (3,3) Schechter.

Fall (3) Popper, Staff.
A survey of developments in English political, social, intellectual, cultural, and religious history from the ascension of Henry VII in 1485 to the death of Elizabeth I in 1603.

**620588. Britain Under the Stuarts, 1603-1714.**

*Spring (3) Popper, Staff.*

A survey of the political, religious, cultural, social, and intellectual history of the British Isles from the coronation of James VI and I in 1603 to the death of Queen Anne in 1714.

**624. African Diaspora (II).**

*Fall or Spring (3,3) Vinson.*

This course examines the African Diaspora since 1800 with major themes including the end of slavery, the fight for full citizenship and the close interactions between diasporic blacks and Africans.

**625. The Rise and Fall of Apartheid.**

*Fall or Spring (3,3) Vinson.*

This class explores the rise and fall of apartheid, the system of rigid racial segregation and domination that existed in South Africa from 1948 to 1994. It examines the successful anti-apartheid movement but also considers apartheid’s legacy in contemporary South Africa.

**653128. Modern Japanese History.**

*Fall or Spring (3,3) Han.*

A history of Japan from the Tokugawa period (1600-1868) to the present, with emphasis on the 19th, 20th and 21st centuries.

**629533. Modern Chinese History.**

*Fall (3) Mosca.*

A history of China from 1644 to the present focusing on China’s imperial system, the experiment with republican government, and China under communist rule since 1949.

**630. America and China: U.S.-China Relations since 1784.**

*Spring (3) Staff.*

A study of U.S.-China relations from 1784 to the present, with special attention to Sino-American relations in the 20th and 21st centuries.

**631582. History of Spain.**

*Fall or Spring (3,3) Homza.*

A survey of Spanish history from 1478 to 1978 that also asks students to investigate cultural, political and social issues in depth, such as the goals of inquisitors, the question of Spanish decline and the context of the Civil War.

**6334583. History of Germany to 1918.**

*Fall (3) Benes, Staff.*

Origins and establishment of the modern German state to the First World War.

**634584. History of Germany since 1918.**

*Spring (3) Benes, Staff.*

Establishment and course of Hitler’s Third Reich, development of two Germanies since 1945, and their subsequent reunification.

**637585. History of France, 1648 to 1800.**

*Fall (3) Schechter, Staff.*

Intensive examination of a pre-industrial society with special emphasis on social, economic and intellectual problems during the ancient regime and Revolution.

**638586. History of France, 1800 to the Present.**

*Spring (3) Schechter, Staff.*

1800 to the present with special attention to social and economic problems as well as to the politics of 20th and 21st century France.

**639, 640. Latin American History.**

*Fall or Spring (3,3) Konefal, Prado*

**648577. The History of Russia to 1800.**

*Fall (3) Corney.*

The political, cultural and intellectual development of Russia. From Kievan Rus’ to the end of the 18th century, tracing the Mongol occupation, the rise of Muscovy and the Romanov dynasty.
**649578. The History of Russia since 1800.**  
*Spring (3) Corney.*  
The political, cultural and intellectual development of 19th and 20th century Russia, tracing the twilight of the Romanovs, the rise of socialist thought, and the Communist state.

**651, 652. African History.**  
*Fall and Spring (3,3) LaFleur Chouin.*

**655. Medieval Europe to 1000.**  
*Fall (3) Daileader.*  
Europe from the fall of the Roman Empire to the Viking invasions. Investigates the triumph of Christianity over paganism, barbarian invasions, interaction of German and Roman societies, rise and collapse of Carolingian Empire.

**656. Medieval Europe since 1000.**  
*Spring (3) Daileader.*  
Europe during the High and Late Middle Ages. Emphasis on social, cultural and religious transformations of these periods; some attention to political narrative.

**658. The European Renaissance.**  
*Fall or Spring (3,3) Homza.*  
Investigation into the intellectual emphases and social and political contexts of humanist practices in Europe between 1314-1598. Attention to historiography and historical method.

**659. The Reformation in Western Europe.**  
*Fall or Spring (3,3) Homza.*  
An investigation into the Catholic and Protestant Reformations in early modern Europe, 1500-1700. Examination of the foundations and effects of religious upheaval and codification. Attention to literacy, printing, the family, the creation of confessional identity and historiography.

**663. The Age of Absolutism and Revolution in Europe, 1648-1789.**  
*Fall (3) Schechter.*  
An intensive survey of Europe in transition: absolutism, enlightenment, enlightened despotism.

**664. The Age of Absolutism and Revolution in Europe, 1789-1870.**  
*Spring (3) Schechter.*  
An intensive survey of Europe in transition: revolution, industrialization and the emergence of the modern state.

**669. The History of Britain from the mid-15th to the late 18th Centuries.**  
*Fall (3) Levitan, Staff.*  
A survey of the political, social, economic, and cultural history of Britain.

**670. The History of Britain from the late 18th Century to the Present.**  
*Spring (3) Levitan, Staff.*  
A survey of the political, social, economic, and cultural history of Britain.

**673. East Central Europe.**  
*Fall or Spring (3,3) Koloski, Staff.*  
Modern history of the east-central region of Europe between Germany and Russia. Topics include: 19th century multi-national empires, 20th century (re)emergence of nation-states, citizens’ struggles to define political, social, and cultural identities despite foreign domination, and post-1989 developments.

**679, 680. Modern Middle East.**  
*Fall and Spring (3,3) Karakaya Stump, Bishara Staff.*

**691. Intellectual History of Modern Europe: Renaissance to the Enlightenment.**  
*Fall (3) Benes, Staff.*  
Cultural and intellectual development of the Western world from the end of the Middle Ages to the Enlightenment.

**692. Intellectual History of Modern Europe: 19th to the 21st Centuries.**  
*Spring (3) Benes, Staff.*  
Cultural and intellectual development of the Western world from the Enlightenment to the present.

**700. Thesis.**  
*Fall and Spring (3,3) Rushforth Whittenburg.*  
This course may be repeated for credit.  
Research and writing for Master’s thesis.
701-702. History and Literature of History.
Fall and Spring (3,3) Staff.
A review of the principal themes of modern scholarship on Early American, United States, or Comparative history. Coverage of major writers, the topics that most attracted their attention, and the schools of interpretation into which they may be grouped. (Open only to candidates for advanced degrees.)

701-01. American History to 1870.
Fall (3) Brown, Rushforth.

701-02. Comparative and Transnational History.
Fall (3) Levitan, Benes.

702. American History from 1870.
Spring (3) Fisher, Kitamura.

705. Teaching History.
Spring (1) Corney. 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.

710 - 713. Research Seminars.
Fall (3) Staff.
Research seminars in fields as indicated by course title. These courses are open only to candidates for advanced degrees. These courses include training in the responsible and ethical conduct of research, as well as discussions of fabrication, falsification, and plagiarism.

710. Research Seminar: America to 1815.
Fall (3) Prado, Wulf.

Fall (3) Kitamura, Ely.

713. Research Seminar: Comparative History.
Fall (3) Homza, Prado.

715. Readings Seminars in Early American History to 1815.
Fall and Spring (3,3) Staff. This course may be repeated for credit when topic differs.
Readings seminars explore, primarily through secondary literature, specific areas or aspects of history. (Open only to candidates for advanced degrees.)

Topics frequently offered include:
- France and the Atlantic World. Rushforth.
- Native American History to 1763. Rushforth.
- Comparative Atlantic Revolutions. Mapp.
- Early American Republic. Grasso
- Religion and American History to 1865. Grasso.
- Readings in Early American History. Whittenburg, Mapp, Grasso, Rushforth.
- Southern Society to 1861. Ely.
- North American Slave Trades. La Fleur.

Fall and Spring (3,3) Staff. This course may be repeated for credit when topic differs.
Readings seminars explore, primarily through secondary literature, specific areas or aspects of history. (Open only to candidates for advanced degrees.)
Topics frequently offered include:
America in the World. Kitamura.
American Foreign Relations. Kitamura.
American West since 1890. Fisher.
Southern Society to 1861. Ely.
Religion and American History to 1865. Grasso.
Workers in American Life. Hahamovitch.
19C. Social History. Sheriff.
Civil War Era. Sheriff.
Native American History since 1763. Fisher.
Sexuality in America. Meyer.
Women/Gender in the U.S. Meyer.
19C. American West. Sheriff, Fisher.
American West. Sheriff.
Gilded Age. Nelson.
Life and Death in the 19C. Brown.
Regional Cultures of the South. Nelson.
America in the World. Kitamura.

720. Readings Seminar in Comparative or Transnational History.
Fall and Spring (3,3) Staff. This course may be repeated for credit when topic differs.

Readings seminars explore, primarily through secondary literature, specific areas or aspects of history. (Open only to candidates for advanced degrees.)

Topics frequently offered include:
Approaches to World History. Schechter.
Comparative Race Relations. Konefal.
Comparative Revolutions. Corney.
Comparative Slavery. Rushforth.
Empires and Imperialism. Zutshi.
Transnational Environmental History. Zutshi.
History and Memory in Europe and America. Corney.
Nations and Nationalism. Benes.

721 - 746. Advanced Readings Courses.
Fall or Spring (3,3) Staff. This course may be repeated for credit when topic differs.

Readings courses in fields as indicated by course title. These courses are open only to candidates for advanced degrees. Students should secure instructor’s permission during the pre-registration period.

721, 722. Early American History to 1815.
Fall and Spring (3,3) Staff.

723. United States History Since 1815.
Fall and Spring (3,3) Staff.

Fall or Spring (3,3) Prado.

726. National Period of Latin American History since 1824.
Fall or Spring (3,3) Konefal.
(Usually intended for students preparing a doctoral field in Latin American history.)

731. Medieval Europe: 400-1450.
Fall and Spring (3,3) Daileader.
732. Europe: 1400-1648.
Fall and Spring (3,3) Homza, Koloski, Popper.
733. Europe 1648-1815.
Fall and Spring (3,3) Schechter, Levitan, Popper.
734. Europe 1815-1945.
Fall and Spring (3,3) Benes, Koloski, Levitan.
735. Russia and Europe 1905 to the Present.
Fall and Spring (3,3) Corney.
Fall and Spring (3,3) Staff.
Fall and Spring (3,3) Popper.
738. England since 1714.
Fall and Spring (3,3) Levitan.
741. East Asia: 1600-1850.
Fall and Spring (3,3) Han, Mosca.
742. East Asia 1850 to Present.
Fall and Spring (3,3) Han, Mosca.
743. Africa: 1800 to the Present.
Fall and Spring (3,3) Vinson.
745. The Modern Middle East: 1500 to 1800.
Fall and Spring (3,3) Karakaya Stump, Bishara.
746. The Modern Middle East: 1800 to the Present.
Fall and Spring (3,3) Karakaya Stump, Bishara.
758. Directed Research.
Fall and Spring (3,3) Staff. Instructor's permission required. This course may be repeated for credit.
759. Topics in History.
Fall and Spring (3,3) Staff. Graded Pass/Fail. Instructor's permission required.
   An examination of selected topics in history. This course may be repeated once when instructor determines there will be no
duplication of material. (Open only to doctoral candidates.)
800. Dissertation.
Fall and Spring (1) Rushforth Whittenburg. This course may be repeated for credit.
   Research and writing of doctoral dissertation.

Physics

The following changes were approved by COGS on April 24, 2014

COURSE NAME AND DESCRIPTION CHANGES:

557. Careers in Physics Fall, 1. Qazilbash. pass/fail
   Presentations and discussion of a wide spectrum of career options for physics graduates. Invited speakers from private enterprises, the public sector, and nonprofit organizations will describe opportunities and
   experiences in their professions. This course may be repeated for credit when the instructor determines there will not be duplication of material.

621. Quantum Mechanics I
Fall (3) Orginos.
Axiomatic development of wave mechanics and the Schroedinger equation in one and three dimensions; wave packets; spin and angular momentum.

622. Quantum Mechanics II
Spring (3) Aubin. Prerequisite: PHYS 621.
Scattering theory; matrix methods; symmetry; perturbation theory and other approximate methods; identical particles; relativistic wave equations and their applications.

721. Quantum Field Theory I
Fall (3) Carone. Prerequisite: 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. Current: Classical field theories, Dirac equation, canonical quantization, interacting field theories, Feynman diagrams. Relation to non-relativistic many-body theory, and applications to atomic transitions. Quantum electrodynamics and introduction to radiative corrections.

722. Quantum Field Theory II
Spring (3) Carone. Prerequisite: PHYS 721

Delete 771

772. The Standard Model of Particle Physics
Spring, 3, Walker-Loud. Prerequisite: PHYS 721.

773. Topics in Nuclear and Particle Physics
Fall, 3, Walker-Loud. Prerequisite PHYS 772.
Topics of current interest in strong, electromagnetic and weak interactions; course may be repeated for credit when the instructor determines there will not be duplication of material.

Delete course 774

DEGREE REQUIREMENTS
Add a PhD concentration in computational science

PhD with concentration in computational science
Physics PhD students with a dissertation emphasizing computational science and with sufficient course work can, upon completion of the degree, request to have the words "with a Concentration in Computational Science" appear on the student's transcript/degree.

Requirements: Students must to satisfy the Physics Ph. D. degree requirements. In addition, they are expected to take three classes focusing on aspects of computational science. These classes could be Physics Department offerings or those of other departments such Mathematics or Computer Science. The program of courses must be approved by the Graduate Studies Committee and by the student's thesis committee (as represented by their Annual Review Committee). In addition, the dissertation must contain a strong computational component such as development of new computational approaches and/or creative use of computational methods to obtain significant physics results. The thesis committee and the student's advisor must certify to the Physics Graduate Studies Committee the thesis contains such computational component.
Public Policy
The following changes were approved by COGS on April 24, 2014

DEGREE REQUIREMENTS
Joint/Concurrent Degree Programs: Joint/concurrent degree programs are available with the nationally ranked schools of Law (MPP/JD), Education (MPP/MEd, MPP/EdD or MPP/PhD), Business (MPP/MBA) and Marine Science (MPP/MS or MPP/PhD), and with the Mathematics Department (MPP/MS in Operations Research). Admission to both programs is required, although in many instances students are accepted to a joint/concurrent program after their arrival at William and Mary.

Programs
Accelerated BA and MPP
Accelerated BS and MPP
Business and Public Policy, MPP/MBA
Computational Operations Research, MPP/MS
Education and Public Policy, MPP/MEd Education and Public Policy, MPP/EdD Education and Public Policy, MPP/PhD
Law and Public Policy, MPP/JD
Marine Science and Public Policy, MPP/MS
Marine Science and Public Policy, MPP/PhD

Education and Public Policy, MPP/MEd
A combined educational leadership and public policy program is available in which the student may obtain both a M.Ed. and a M.P.P. degree in three years, instead of the four years that would be required if each were pursued separately. Candidates interested in this joint degree program must apply to and gain acceptance by both the Graduate School of Education and the Thomas Jefferson Program in Public Policy.

Education and Public Policy, MPP/EdD
A combined educational leadership and public policy program is available in which the student may obtain both an Ed.D. and a M.P.P. degree in five years, instead of the six years that would be required if each were pursued separately. Candidates interested in this joint degree program must apply to and gain acceptance by both the Graduate School of Education and the Thomas Jefferson Program in Public Policy.

Education and Public Policy, MPP/PhD
A combined educational leadership and public policy program is available in which the student may obtain both a Ph.D. and a M.P.P. degree in five years, instead of the six years that would be required if each were pursued separately. Candidates interested in this joint degree program must apply to and gain acceptance by both the Graduate School of Education and the Thomas Jefferson Program in Public Policy.

Additional Requirements:
In addition to the core, students in the MPP degree program are required to take 20 credit hours of electives, including a minimum of five 3-credit electives, at least one of which must be a 3-credit program approved School of Law course. Students accepted for the degrees of MPP/JD, MPP/MBA, MPP/MEd, MPP/EdD, MPP/PhD, MPP/MS in Marine Science, MPP/PhD in Marine Science, or MPP/MS in Computational Operations Research are required to take a minimum of 9 credit hours of electives, at least one of which must be a 3-credit program approved School of Law course. Law courses are second year electives. Students may pursue one of the suggested areas of emphasis below or an alternative set of courses developed with consent of the Director. Students must petition the curriculum committee for approval of alternative electives. Areas of emphasis include education policy, environmental policy, health care policy, international trade, regulatory policy, and state and local policy.
Graduate Regulations  
The following changes were approved by COGS on May 22, 2014

DEGREE REQUIREMENTS  
Master’s Degree Requirements

COGS approved creating a new course for all A&S graduate programs:

**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.*

COGS approved establishing the following course, with a common course number, for all A&S graduate programs:

**685. Colloquium. Fall and Spring (variable 0-2 credits). Graded Pass/Fail.**

No more than 2 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.*

Changing the title of **BIOL 682** from *Graduate Colloquium* to *Research Seminar.*

Doctoral Degree Requirements

COGS members approved modifying the current paragraph F. under section **III. Degree of Doctor of Philosophy:**

Each candidate must successfully defend his or her dissertation in a final examination before it can be accepted by the College. This examination may be written or oral at the discretion of the department/program concerned and shall be open to the faculty and to such outside persons as the department/program may invite.

both to signal the expectation that the defense examination will be oral (petitions by candidates with disabilities for exceptions to this requirement can be made through the Dean of Students Office) and to require the physical presence of the candidate at their defense, as follows:

Each candidate must successfully defend his or her dissertation in a final examination before it will be accepted by the College. This examination must be open to the faculty and to such outside persons as the department/program may invite. While electronic participation by committee members is allowed to accommodate schedules, particularly those of committee members from outside the College, first preference is for committee members to be physically present for the examination. The candidate must be physically present for the examination.

Admissions

COGS approved rewording the start of the current section labeled “Regular Graduate Students”:

Regular Graduate 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, College of Arts & Sciences.
COGS approved removing the following section “Provisional Graduate Students” from the catalog: The label “Regular Graduate Student” will be removed from the catalog [see A] as a distinction no longer needed.

COGS approved the following broadening of language proficiency requirements for international students:
Applicants whose native language is not English must complete the Test of English as a Foreign Language (TOEFL), which is administered by ETS, or the International English Language Testing System (IELTS). Applicants must request ETS/IELTS to send TOEFL/IELTS scores directly to the graduate program to which they are applying. In conformance with the availability of both TOEFL Test Scores from ETS and Test Report Forms from IELTS, scores are no longer valid after two years; only scores sent directly by either ETS or IELTS are accepted.

The TOEFL/IELTS requirement can be waived for applicants who will have received a baccalaureate or master’s degree, or its international equivalent, from a college or university in which English is the primary language of instruction. A transcript will be required as evidence of successful interaction in English as a primary language. 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 Dean of Graduate Studies and Research, College of Arts & Sciences.

COGS approved replacing the current paragraph on GRE scores:
Each student applying for admission must submit scores on the verbal, quantitative, and analytical sections of the GRE. Applicants must request ETS to send GRE scores directly to the department/program to which they are applying. In addition, some departments/programs require prospective students to include scores on the subject portion of the test. There must be no more than five years between the William & Mary term that the test was taken and the William and Mary term in which the application is submitted. GRE information bulletins with test registration forms may be obtained by visiting the web site, http://www.gre.org or calling 609-771-7670.

With the following paragraph, which ties the expiration date of GRE scores to the availability of test scores from ETS:

Each student applying for admission must submit scores on the Verbal Reasoning, Quantitative Reasoning, and Analytical Writing sections of the GRE, which is administered by ETS. In addition, some graduate programs require prospective students to include scores on the subject portion of the GRE test. Applicants must request ETS to send GRE scores directly to the graduate program to which they are applying. In conformance with the availability of GRE Scores from ETS, test scores are valid for five years after the testing year in which an applicant tested (July 1–June 30); only scores sent directly by ETS are accepted.
Graduate Center Annual Report 2013

Staff and Facilities
The Graduate Center organizes and sponsors a variety of activities, events, and non-credit courses for W&M graduate and professional students. The Dean of Graduate Studies and Research in Arts & Sciences and Chasity Roberts, Assistant to the Dean of Graduate Studies and Research, administer the Center’s activities. For the 2013-14 academic year, M. Lee Alexander served as Manager of the English for Speakers of Other Languages (ESOL) Program. The Center is located in Stetson House at 232 Jamestown Road.

In Fall 2013 and Spring 2014, seven College faculty and staff taught eight Graduate Center courses. The Graduate Center continued to work collaboratively with other College offices and schools on expanding the scope of activities and events offered to W&M graduate and professional students, as well as undergraduate students when appropriate, to enhance the diversity of opportunities offered as well as to invite the participation of students from all of the A&S graduate programs.

Graduate Center Highlights
Appendix I provides a listing and summary of participation in Graduate Center activities, events, and courses since fall 2008. Highlights from the spreadsheet include:

- Course enrollments for the calendar year were 78. The students who enrolled were a mix of domestic and international graduate students from A&S, Business, and Education.

- In Fall 2013, the Graduate Center’s Conversation Partner Program paired 60 native and nonnative English speakers to meet informally and discuss topics of mutual interest. The nonnative English speakers included graduate students from A&S, Business, and Law. Native English speakers included both graduate and undergraduate students in A&S and Law, as well as some volunteers from the local community.

- Prior to the 2014 Graduate Research Symposium, the Graduate Center sponsored a workshop on designing conference posters, which was led by Barbara Monteith who is with the ESOL Program. Enrollment in the workshop came with an offer to participants to receive individualized feedback on poster layout and design.

- A&S graduate students on the 2014 Graduate Research Symposium Committee and the Graduate Student Association worked with the Office of Graduate Studies and Research and the Graduate Center to organize this annual event. The 2014 Graduate Research Symposium was highly productive, with 170 oral and poster presentations and a total of more than 1300 attendees at symposium events. The presenters included 43 graduate students from 17 regional institutions such as American University, Hofstra University, Vanderbilt University, and Virginia Tech. Based on written papers that were submitted by presenters and ranked by a judging panel of A&S faculty and Graduate Studies Advisory Board members, awards totaling $7,500 were provided to W&M graduate students and visiting student scholars. David Armstrong, Physics, moderated a panel discussion on "Strong Artificial Intelligence: An Interdisciplinary Panel Discussion on 'Future' Technology.” Panel members included Professor Mark Hinders, Applied Science; Professor Michael Green, the Law School; Cynthia Morton and Ed Watson, both of whom serve on the A&S Graduate Studies Advisory Board; and David Ward, an MA/PhD student in History. The Graduate Studies Advisory Board was a symposium sponsor in 2014. Board members also participated in the symposium by chairing sessions, serving on the judging panels, offering recruitment and mentoring opportunities, and providing two corporate-sponsored awards of $1000 each. Northrup-Grumman was a corporate sponsor of the symposium.

- The popular annual Raft Debate, which is sponsored by the Office of Graduate Studies and Research, the Graduate Center, and the A&S Graduate Student Association, was held on October 2, 2013. The audience of approximately 575 included undergraduate and graduate students,
faculty, and community members. The Raft Debate is featured in the summary of W&M traditions found at [http://www.wm.edu/about/history/traditions/index.php](http://www.wm.edu/about/history/traditions/index.php).

- The Graduate Center sponsored multiple social events during the 2013-2014 academic year. In August, 26 international students entering A&S graduate programs attended a *Meet-and-Greet Reception*. In November, the Graduate Center and the International Law Society from the W&M Law School co-sponsored a *Thanksgiving Celebration* for international graduate students and their Conversation Partners; 75 people attended this event. In April, 26 attended an appreciation luncheon for the volunteers who serve as Conversation Partners.

- In May 2013, as part of the Commencement weekend activities, the Graduate Center organized a reception for students graduating from A&S graduate programs. The Graduate Studies Advisory Board sponsored the event. In addition to the graduates and their families and friends, the chairs, program directors, and graduate directors were invited. Also in attendance were Chancellor Gates, President Reveley, Provost Halleran, Dean Conley, Dean Torczon, and Brian Morra, Vice President of the Graduate Studies Advisory Board.

**Newsletter**

The Graduate Center's electronic newsletter *DID YOU KNOW THAT? (DYKT?)* is distributed by e-mail to A&S graduate students every Monday during the academic year. Each academic year there are approximately thirty issues of *DYKT?*. Beginning in the fall of 2008, *DYKT?* has been posted online at [http://www.wm.edu/as/graduate/studentresources/newsletter/index.php](http://www.wm.edu/as/graduate/studentresources/newsletter/index.php). March 31, 2014 brought the debut of a new electronic version of *DYKT?* with condensed entries that include links to Events posted in the also-new OGSR Events calendar posted on the OGSR homepage (see [http://www.wm.edu/as/graduate/index.php](http://www.wm.edu/as/graduate/index.php)), as well as to webpages containing more pertinent information.
A&S Graduate Ombudsperson Report for July 2013-June 2014

Hiroshi Kitamura, Associate Professor, Department of History, mailto:hxkita@wm.edu

A total of eight graduate students contacted the ombudsperson for consultation.

Issues included mediation concerning a drug policy violation, amorous relationships, student-advisor "conflicts" concerning thesis feedback (three cases), issue concerning the sharing of research materials, and switching graduate programs.

The time-scale of meetings varied widely. The shortest case resolved through a meeting and set of e-mails exchanged within a week. The longest case required an extensive set of conversations that spanned across three months. One case involved a "second ombuds" for mediation.

All cases have been resolved.
Committee on Graduate Studies Members, 2013-14

Virginia Torczon, Chair
Arthur Knight, American Studies
Martin Gallivan, Anthropology
Hannes Schniepp, Applied Science
Matthew Wawersik, Biology
Debbie Bebout, Chemistry
Evgenia Smirni, Computer Science
Rex Kincaid, Computational Operations Research
Jim Whittenburg, History
Jeff Nelson, Physics
Pam Hunt, Psychology
Elaine McBeth, Public Policy
APPENDICES
## APPENDIX I

### GRADUATE CENTER PARTICIPATION

**Fall 2009 thru Spring 2014**

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(1) Average of UG transcripts and GRE scores submitted by enrolled students.

(2) GRE General Test (tests taken prior to August 1, 2011) scores reported 200–800, in 10-point increments.
GRE revised General Test (tests taken on or after August 1, 2011) scores reported 130–170, in 1 point increments.

(3) The American Studies Program did not admit students for 2009-2010.

(4) This includes students in the Computational Operations Research program.
APPENDIX III

GRADUATE STUDENT ENROLLMENTS\(^{(1)}\)

**Fall 2009 to Fall 2013**

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<th>Department</th>
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<th>Fall 2011</th>
<th>Fall 2012</th>
<th>Fall 2013</th>
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Notes:

\(^{(1)}\) Totals include full-time, part-time and continuous enrollment registration, including dual degree students in Law, Business and Marine Science (10 dual degree students in 2013).

\(^{(2)}\) Includes Computational Operations Research.

\(^{(3)}\) Fall 2009-2013 enrollment reflects only students enrolled through W&M and does not include total consortium count.
### APPENDIX IV
### GRADUATE STUDENT ENROLLMENT BY DEGREE FALL 2013

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## APPENDIX V

**GRADUATE DEGREES AWARDED DURING THE LAST 10 YEARS**  
(August 2004 – May 2014)

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1 Includes Computational Operations Research.