

Committee on Graduate Studies Report to the Faculty July 2017 - June 2018

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Introduction

The structure of the Annual Report by the Committee on Graduate Studies (COGS) to the Arts & Sciences (A&S) Faculty is as follows:

- brief introduction, including a discussion of the importance of Arts & Science graduate programs to the university
- new and recurring themes and issues facing graduate programs in Arts & Sciences
- highlights of items discussed and resolved by COGS
- highlights of administrative changes instituted by the Office of Graduate Studies and Research (OGSR)
- presentation of Graduate Arts & Sciences Catalog changes that occurred over the past year
- report on the activities of the A&S Graduate Center
- report by the A&S Graduate Ombudsperson
- appendices

The Importance of Arts & Sciences Graduate Programs to the University

Graduate programs in Arts & Sciences are integral to the mission of William & Mary. By providing the expertise and opportunities of a major research university, combined with the faculty mentoring and dedication to teaching found at a small liberal arts college, W&M awards A&S graduate degrees that are essential for leadership positions across a broad spectrum of careers. In Arts & Science we have eleven highly selective graduate programs that are often recognized as being among the most academically rigorous in the nation. For example, in the 2018 *U.S. News & World Report's* rankings for Best Graduate Schools, the History doctoral program tied at 27th in the U.S. compared to 36th in the 2014 ranking (doctoral programs in History are evaluated every four years), and the colonial history program held its spot as third in the nation. *College Magazine* also recently ranked William & Mary the number one school for History buffs, thus demonstrating the value to the undergraduate programs when we have strong graduate programs. Our master's programs in Psychological Sciences and Biology are among the strongest research-focused master's programs in the country. We punch well above our weight when it comes to the respect held for our graduate programs.

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. Excelling at the graduate level and fostering a strong sense of community among our graduate students and graduate faculty is a key component of the W&M Strategic Plan. The strength of our graduate programs places us in a higher select peer group, which helps attract new faculty, students, and staff, as well as instructional, research, and infrastructure resources that otherwise would not 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 tenure-equivalent faculty, and justify William & Mary's inclusion on [The Carnegie Classification of Institutions of Higher Education's](#) list of Research Universities with higher research activity (RU/H). In addition, in FY 2018, faculty members affiliated with any of the eleven A&S graduate programs generated almost 64% of the Facilities & Administrative (F&A) cost recovery in A&S. These funds are essential for maintaining the research infrastructure for all W&M faculty since A&S accounts for the lion's share of F&A recovery on the main campus.

- 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 W&M. The departure of these research-active faculty members represents a substantial pedagogical and financial loss to W&M. The research conducted by A&S graduate programs also enables a large proportion 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 W&M, 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. In addition, A&S graduate student mentors contribute to the success of undergraduate research in a number of disciplines.

New and Recurring Themes and Issues

Graduate Financial Aid

Graduate student financial support continues to be the most pressing issue for the graduate programs in A&S. Historically, financial aid increases for A&S graduate programs had been dependent on irregular and insufficient allocations from the Commonwealth. W&M's budget has never included A&S graduate students when there is a raise pool for faculty and staff, even though A&S graduate students are part-time employees of W&M who play an important role in the instructional and research missions of W&M. Thus, financial aid for A&S graduate students continues to lag behind the offers of financial aid made by the universities against which our graduate programs compete for top applicants, particularly in the sciences.

Arts & Sciences is delighted that increases in base funding for graduate stipends are understood as a W&M priority and that in the past decade the Office of Graduate Studies and Research has enjoyed several substantive increases in the financial support of the graduate students in A&S. However, the institutions against which W&M competes have been aggressively increasing the amounts of the financial packages they are offering top candidates, and Graduate A&S has not enjoyed a budget increase since FY17.

At the May 1, 2017 meeting of the A&S Committee on Graduate Studies, the eleven graduate directors reported on the results of their recruiting efforts for Fall 2017 admissions. American Studies, Anthropology, and History all reported successful recruiting seasons. American Studies recruited three of their top four candidates. Anthropology recruited all three of their top candidates – beating out a counteroffer from the University of Chicago for the first time. History secured three of their top six candidates, drawing three more from a deep waiting list. All three programs reported that previous increases to their base stipends helped make their offers more competitive against some stiff competition, with the recruitment fellowships available

to offer to their very top candidates playing a crucial role. All report that faculty scholarship proved a significant draw for the majority of the applicants who accepted offers of admission, and that the open houses they conducted for admitted students further helped secure the successful outcomes. The challenge for History remains minority recruitment, as the department was unable to convince top students of color to join their doctoral program.

For the doctoral programs in the sciences, recruitment successes were mixed. Applied Science had an exceptional recruitment year, with ten entering students. New faculty members who were in the process of building research groups made significant contributions to the recruitment effort. Computer Science reported that the total number of applications remained steady, but that the number of applicants to the terminal master's program rose significantly, at the expense of the number of applicants to the doctoral program; this is in line with national trends attributed to the strong job market in Computer Science. The department admitted a strong cohort, but lost top candidates to University of California, Los Angeles, North Carolina State University, University of Utah, and University of Toronto – all of which have large and highly ranked doctoral programs in Computer Science. Physics secured acceptances from seven of their top eight candidates and elected not to dip into their waitlist. Of the 7 acceptances, 5 are domestic and 2 are international; 2 are female. They were particularly pleased to have landed their top applicant, a woman from MIT with excellent credentials; the Zable Recruitment Fellowship is credited with playing a critical role in this success. Reasons students gave for selecting other programs included the relatively small size of the department, and the desire to work with a particular faculty member at the other institution.

Biology, Chemistry, and Psychological Sciences reported successful recruiting seasons; all were able to fill their entering cohort. All attribute the modest increase to their base stipend, as well as recruitment fellowships, to their success. Biology and Psychological Sciences also report success in diversifying their master's student population due to intentional outreach efforts. Computational Operations Research reported an anomalously low number of applicants, but was able to garner nine incoming students out of the pool of eighteen completed applications. All four of these programs reported competing against offers from doctoral programs that proved more appealing than an offer from one of the A&S terminal master's degree programs.

While factors in addition to the composition of financial aid packages figured into candidates' decisions, A&S continues to compete against universities – in particular, private universities – that offer better financial packages. These include not only higher stipends, but also health insurance or health insurance subsidies, as well as research allowances. The recruitment fellowships we are able to offer can help ameliorate the differences, but do not always overcome them.

Ongoing stipend increases and provisions for health insurance subsidies remain critical for the following reasons:

- **Competitiveness:** In previous years, the Office of Graduate Studies and Research has used a series of base budget increases to institute stipend increases for doctoral students, competition remains strong as other universities continue to improve the financial aid packages they offer to incoming students. The A&S doctoral programs have reduced the size of their incoming cohorts in order to increase stipends. Chemistry has increased the department's supplement to the financial aid package offered to incoming master's students in order to remain competitive. The lack of health insurance coverage has been a particular challenge for several programs.
- **Diversity:** Members of groups traditionally under-represented in academia receive generous financial aid offers from other institutions. Graduate programs in A&S at W&M struggle to compete with these offers and often do not succeed.
- **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 enrollments totaling 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:** Many members of the A&S graduate faculty would not be able to maintain their research productivity and their ability to obtain external grant and contract funding without the participation of highly qualified graduate students.

Dean Torczon, the Dean of the Faculty of Arts & Sciences, and the A&S Graduate Studies Advisory Board (GSAB) have taken the following steps to increase needed financial support for A&S graduate students:

1. In FY 2017, Kate Conley, the Dean of the Faculty of Arts & Sciences, in collaboration with the Dean of Graduate Studies and Research, once again submitted a Planning Budget Request asking for further investment in A&S graduate financial aid. This latest PBR was denied in the face of university-wide budgetary constraints.
2. In Fall 2014, Provost Halleran used his discretionary authority to establish the Walter J. Zable Graduate Recruitment Fellowships for the top applicants to doctoral programs in A&S, thanks to the generous bequest left by the late Walter J. Zable. This commitment makes it possible to offer recruitment fellowships to five top applicants in the form of a supplementary stipend of \$5,000 per year for the recipient's first two years in the doctoral program, plus up to \$500 to cover the recipients' research expenses during their first two years. A faculty committee, composed of one representative from each of the six doctoral programs, ranks all the nominees based on the strength of the academic credentials they presented for admission. Five graduate students were secured for the Fall 2017 incoming cohort, thanks to this recruitment fellowship: one in American Studies, one in Anthropology, one in Applied Science, one in History, and one in Physics. The Physics candidate was a strong applicant from a population underrepresented in her discipline; the offer of a Zable Recruitment Fellowship figured heavily in her decision to accept an offer of admission from W&M.
3. The Dean of Graduate Studies and Research used the discretionary portion of the base budget increase received in FY 2015 to establish the Dean's Recruitment Fellowships to help recruit top applicants to doctoral programs in A&S. One fellowship is granted to each of the six doctoral programs to use at their discretion when recruiting. Fellows receive a lump sum payment in the Fall of \$4,000 per year for the recipient's first two years in the doctoral program. Given the success of this fellowship when recruiting for Fall 2016, it was continued in FY 2018 and again proved successful in recruiting strong applicants to the A&S doctoral programs.
4. In 2015, the Dean of Graduate Studies and Research secured the approval of the members of the GSAB to use their expendable account to establish the A&S Graduate Studies Advisory Board Recruitment Fellowships to help recruit top applicants to master's programs in A&S. One fellowship is granted to each of the terminal master's programs (only) to use at their discretion when recruiting. Fellows receive a supplementary stipend of \$2,000 per year for the recipient's first two years in the master's program. Given the success of this fellowship, it was continued in FY 2018 and again proved successful in recruiting strong applicants to the A&S master's programs.
5. In May 2014, the Dean of Graduate Studies and Research instituted the Provost Dissertation Fellowship program for doctoral students in American Studies, Anthropology, and History. This initiative was launched in response to the recommendation found in all three 2014 external review reports for American Studies, Anthropology, and History: that the university institute dissertation completion fellowships to address time-to-degree concerns identified by all three external review committees. Starting with the 2016 Provost Dissertation Fellows, selection is competitive with two faculty members from each of the three doctoral programs ranking applicants based on what of their dissertation they have drafted by the time of review, their plan for finishing their dissertation within a year, and the strength of the letter of support they have received from their primary advisor. Each doctoral student receives a one-year fellowship, with no instructional or other obligations; the recipients are to focus solely on the writing of their dissertation. As of June 30, 2018, all but one of the fellows in the 2014, 2015, and 2016 cohorts had graduated; the one remaining fellow from these inaugural cohorts expects to defend in Fall 2018 and graduate in January 2019. Seven of the fellows in the 2017 cohort of eight defended in time to graduate by no later than August 2018; the remaining fellow is on track to graduate in January 2019. Given the success of the program, particularly as the OGSR has worked to strengthen both the selection and mentoring processes, what had been a trial initiative has now become a standing program in Graduate Arts & Sciences.
6. In Fall 2014, Kate Conley, the Dean of the Faculty of Arts & Sciences, instituted a Graduate Research Fund for doctoral students in American Studies, Anthropology, and History to provide competitive research grants in support of their dissertations. Faculty committees in each of these three doctoral

programs put forward the top proposals from their students for review by the Dean of Graduate Studies and Research and the Director of the Arts & Sciences Graduate Center. With matching funding from external funding agencies, departmental resources, and in-kind contributions from the graduate student applicants, in Spring 2018 a total of 12 doctoral students received substantive funding that helped make it possible for them to travel to sites in Canada, Europe, and across the U.S. to pursue their research. Given the success of this program, in Fall 2017 Dean Conley instituted a complementary Graduate Conference Travel Fund for senior doctoral students to provide competitive grants in support of travel to major conferences to present research; the administrative process and matching requirements are equivalent to those for the Graduate Research Fund. In Spring 2018, a total of ten A&S doctoral students received substantive funding to make attendance possible at major conferences in the U.S., Canada, and Europe.

Graduate A&S Recruitment

In the Fall of 2017, William & Mary welcomed an impressive group of 119 new A&S graduate students in six doctoral programs and eleven master's programs. The applicant pool totaled almost 800 in 2017. More than 93% of the A&S graduate students entering in Fall 2017 had conducted research projects as undergraduate students, with most receiving awards or Honors for their scholarship. Almost 99% had contributed to their communities through volunteer service, and 70% had been teachers or mentors to preschoolers through senior citizens. Approximately 25% of the entering A&S graduate students were international students from eight countries.

Graduate Student Research and Conference Travel Funds

In Fall 2005, an initiative to provide competitive 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 the [A&S Graduate Student Research Grants](#) program is to provide seed 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 A&S 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, the OGSR initiated a summer funding program in Summer 2009. In previous years, spring research grants could include funding for summer activities, but the funds had to be expended prior to July 1, which placed undue constraints on their use. In 2017-2018, the OGSR awarded a total of \$5,600 to 16 graduate students in Fall 2016, \$5,600 to 16 graduate students in Spring 2018, and \$8,390 to 24 graduate students for Summer 2018. The maximum award was \$350.

The OGSR and the W&M Student Activities Office provide financial support for the A&S Graduate Student Association (GSA) [Supplemental Conference Funding](#). The GSA is responsible for managing 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 a 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 \$12,000 for 24 awards in Summer 2017, \$8,367 for 24 awards in Fall 2017, and \$8,550 for 26 awards in Spring 2018.

A&S Graduate Studies Advisory Board

The A&S [Graduate Studies Advisory Board](#) (GSAB), created in 2004, enhances the quality of A&S graduate programs in multiple ways, including providing financial support for the following initiatives:

- [Recruitment Fellowships](#): Effective with the Fall 2015 incoming cohort, GSAB recruitment fellowships make it possible for each of the five terminal master's programs in A&S to offer, at their discretion, a supplementary stipend of \$2,000 per year for the recipient's first two years in the master's program so that each of these programs can compete more effectively for their top applicant. In each instance, the offer of a recruitment fellowship secured an acceptance from one of the program's top applicants.

- [Distinguished Thesis and Dissertation Awards](#): Established in 2004-2005, these awards recognize exemplary achievement in original research that contributes to the discipline. Students are nominated by their thesis or dissertation advisor. The theses and dissertations nominated are ranked by a panel of faculty scholars. In 2017-2018, four A&S graduates received Distinguished Thesis and Distinguished Dissertation Awards, which are presented to the recipients at their program's diploma ceremony.
- [Graduate Research Symposium](#): Board members provide substantive financial sponsorship for the annual research symposium, as well as serving as active participants.
- [Awards at the Graduate Research Symposium](#): In addition to providing financial support for the organization of the Graduate Research Symposium, the GSAB provided the funding for multiple outstanding research awards for both A&S graduate students as well as graduate student participants from other universities. The GSAB sponsored corporate awards of \$1,000 each to recognize exceptional A&S graduate student research.
- [Carl J. Strikwerda Awards for Excellence](#): Established in Spring 2011, these awards recognize A&S master's students for their outstanding written papers on thesis research or scholarship to earn an M.A., M.S., or M.P.P. degree. Students submit papers written for the Graduate Research Symposium for consideration by a ranking panel composed of faculty and GSAB members. Four awards of \$250 were presented at the 2018 Graduate Research Symposium Awards Luncheon to master's students whose papers were judged to be outstanding by the ranking panel.
- [S. Laurie Sanderson Awards for Excellence in Undergraduate Mentoring](#): Established in Spring 2011, these annual awards recognize A&S graduate students for outstanding undergraduate mentoring in scholarship and research outside of classroom teaching. In Spring 2012, board members voted unanimously to rename the awards to honor Laurie Sanderson's contributions to A&S graduate studies during her term as Dean of Graduate Studies and Research from July 1, 2005 to June 30, 2012. 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. Four awards of \$250 were presented at the 2018 Graduate Research Symposium Awards Luncheon.
- [Commencement reception for graduates from the A&S graduate programs](#): Established in Spring 2014, this reception, with funding by the GSAB, celebrates graduates, their families, and their faculty during Commencement Weekend. President Reveley, Dean Conley and Dean Torczon attended the May 2018 event.
- [Graduate Student Commons](#): Opened in Fall 2015, board members sponsored, in collaboration with Carrie Cooper, Dean of University Libraries, the construction of a dedicated study space for all W&M graduate students. Located on the second floor of Swem Library, across from the Center for Geospatial Analysis, the Commons offers space to store research material, study areas, and a place to collaborate with peers. Graduate students access the space by swiping their W&M ID cards through the card reader at the doors. In addition, the Commons hosts programs tailored for graduate students.
- [Journal Club](#): In Spring 2016, members agreed to a request put forward by Andrew Kottick and Sean Koebley, doctoral students in Applied Science, to partner with the OGSR to provide refreshments for a weekly gathering for sharing research with W&M Arts & Sciences and VIMS graduate students. Their request on behalf of the A&S graduate student population was born out of a desire for graduate students to meet each other, mingle between departments, and to learn about the research being conducted across A&S. Given the ongoing success of the students in building an interdisciplinary intellectual community, the GSAB has provided ongoing financial support, with additional support also provided by the OGSR, the Reves Center for International Studies, and the Virginia Institute of Marine Science, which hosts one event per semester on the VIMS campus.

In Spring 2018, the GSAB initiated a partnership with Provost Halleran, Vice Provost Manos, Dean Conley, and Dean Torczon to create an award to recognize outstanding mentoring of graduate students by a member of the Arts & Sciences faculty:

- [Graduate Faculty Mentoring Award](#): This award recognizes faculty adept within the broad spectrum of activities that makes up graduate mentoring. Exemplary graduate mentoring supports the advancement of students as *scholars, teachers, and professionals*, and requires significant time and skill. The inaugural recipient, acknowledged at the April 2018 Faculty of Arts & Science meeting, was Matthias Leu, Associate Professor of Biology.

In 2017-2018, the GSAB also partnered with the A&S Graduate Center to introduce the:

- [GSAB Mentoring Program](#), which fosters one-on-one mentorships intended to help students build professional skills. A student is paired with volunteer, who serves as a mentor for the academic year in recognition that graduate students are more successful when they receive mentoring from multiple sources.

The GSAB ended FY 2018 with 23 community, business, and education leaders as fully participating members, as well as two A&S graduate student members selected by the Graduate Student Association. In addition to providing financial support for A&S graduate students and programs, board members advocate on behalf of graduate studies in A&S, as well as coordinate with the A&S Graduate Center and the Cohen Career Center to support professional development opportunities for A&S graduate students.

The Graduate Studies Advisory Board met on campus October 22, 2017 and again on March 17-18, 2018. The fall meeting was preceded by the W&M [Three Minute Thesis](#) competition on October 21, 2017, which was held in collaboration with VIMS. Two board members served as judges for the event, with the GSAB providing the money for the prizes awarded at the event. The GSAB spring meeting and the Graduate Research Symposium were coordinated to be held on the same weekend. Board participation in symposium events included six board members who served on the judging panel for the awards and ten board members who chaired oral sessions at the symposium. Members also attended oral and poster sessions and were involved in informal career mentoring and networking at the symposium reception and the awards luncheon. COGS members were invited to attend the evening reception at the board's March 2018 meeting to discuss their perspectives on the strengths and needs of A&S graduate programs.

COGS Highlights

Members of the Arts & Sciences Committee on Graduate Studies met seven times during Fall 2017 and seven times during Spring 2018. A summary of highlights from their meetings includes:

- COGS members raised the standard for accepting graduate-level credits earned as an undergraduate at William & Mary to satisfy the requirements for an Arts & Sciences graduate degree. Specifically, they voted unanimously that credit be considered for acceptance only for courses in which the student received a grade of B or higher.
- COGS members agreed to drop the requirement that the members of qualifying or comprehensive examination committees needed to be approved by the Dean of Graduate Studies and Research in advance of the examination of an A&S graduate student. Instead, decisions regarding the constitution of these examination committees will be left to the individual graduate programs; both the names and signatures of examination committee members are included on the form submitted to the OGSR to document that a student had passed either a comprehensive or qualifying exam.
- COGS members agreed to add a new subsection to the Graduate Arts & Sciences Catalog, effective with the 2018-2019 catalog, under the section [Requirements for Degrees](#) on the [Constitution of Defense Examination Committees](#). This was done as a follow-up to an agreement reached by COGS members in Spring 2013 regarding the constitution of examination committees, since there had been no formal vote taken and no follow-up to incorporate the agreement into the Graduate Arts & Sciences Catalog.
- COGS members agreed to add a new subsection to the Graduate Arts & Sciences Catalog, effective with the 2018-2019 catalog, under the section [Requirements for Degrees](#) on the [Submission and Acceptance of the Dissertation or Thesis](#). The change ensures that the format of the dissertation or thesis is set by the term of graduation, not by the year in which a student matriculated, and that the requirements are the same for both master's and doctoral students.

- COGS members unanimously approved substantive changes to the Graduate Arts & Sciences Catalog, effective with the 2018-2019 catalog, under the section [Requirements for Degrees](#) for the [Degree of Doctor of Philosophy](#). This revision eliminated the one-year residency requirement that had been in place for all doctoral degree candidates by replacing it with the requirement that a student must earn a minimum of 24 credit hours of 800, Dissertation, to graduate. It also made explicit the requirement that doctoral candidates must earn a minimum of 30 credit hours (which may include the minimum requirement of 24 credit hours of 800, Dissertation, but no more than 24 credit hours of 800, Dissertation) that must be earned in courses numbered 600 or above. The 30 credit hours must be distinct from any graduate credit hours used to satisfy the degree requirements for a master's before advancing to candidacy in the doctoral program.
- COGS members unanimously approved the creation of the "universal" course number 710, Research Project, which has a very particular use for those terminal master's degree programs (currently, Applied Science and Computer Science) that require a capstone project in lieu of a thesis. They also agreed that graduate credit hours for 710 could not be used to satisfy either the thesis master's or doctoral degree requirements. The History faculty graciously agreed to renumber HIST 710 (Research Seminars) to HIST 712 to accommodate this action.
- COGS members unanimously approved minor changes to the Graduate Arts & Sciences Catalog, effective with the 2018-2019 catalog, under the section [Requirements for Degrees](#) for the [Degrees of Master of Arts and Master of Science](#) in response to the catalog changes to degree requirements detailed above.
- COGS members unanimously approved changes to the Graduate Arts & Science Catalog, effective with the 2018-2019 catalog, under the section [Grading and Academic Progress](#) to the subsection [Leaves of Absence/Withdrawals](#). Most substantive is the opening for this revised section:
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.

The new limit of a maximum of one year of approved leave (previously, there had been no limit) brings A&S policies and practices regarding leaves in line with the other doctoral-degree granting institutions in Virginia, which limit approved leaves to either one or two years.

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

Office of Graduate Studies and Research Administrative Highlights

- TargetX went live on August 1, 2017 in support of (almost) fully online submissions for admission to Arts & Sciences graduate programs. As predicted, the Achilles heel that thwarts a completely online submission process lies with securing properly transmitted official transcripts.
- Working with Kathy Larrieu, Web Specialist for A&S, and the eleven A&S graduate programs, the OGSR updated the [Admission to Graduate Study](#) webpages maintained by the OGSR both to improve their navigability and to support the move to TargetX.
- On October 25, 2017, the Dean of Graduate Studies and Research satisfied the requirement established by COGS at their October 13, 2011 meeting, that a statement be sent, annually, to the faculty members in A&S graduate programs regarding the importance of timely feedback of dissertations and theses.
- Working with the W&M Commencement Committee, in February 2017, the OGSR finalized a new policy regarding both graduation and participation by Arts & Sciences graduate students in the May Commencement Ceremony effective with May 2017 Commencement. This policy was

established in response to a request from members of the Commencement Committee that the information published in the Commencement program be both more accurate and more complete. Further refinements were instituted in February 2018 for May 2018 Commencement.

- In Spring 2018, working with Steve Otto, A&S Director of Communications, the OGSR undertook a major review and revision of the forms used to document the progress of A&S graduate students. The new forms went live on August 1, 2018. This major undertaking was spearheaded by Sarah Glosson, Director of the A&S Graduate Center, with significant input from Wanda Carter, A&S Registrar & Administrator of Graduate Student Services. The revised forms can be found on the OGSR [Forms](#) webpage, including the new Qualtrics [Intent to Graduate](#) form designed to clarify the information required of students intending to either graduate in May or participate in the May Commencement ceremony.
- In Spring 2018, working with Kathy Larrieu, the OGSR undertook a major review and revision of the webpage and W&M Calendar events posted for students who submit either a dissertation or thesis to satisfy degree requirements. This major undertaking, which was spearheaded by Sarah Glosson and Vicki Thompson Dopp, Administrative Assistant, led to a redesign of the webpage [Process for Submitting Your Thesis or Dissertation](#), a new [Deadlines](#) webpage that details the submission deadlines for each graduation term for the next two years, and the revision of calendar events (e.g., [Pre-Defense Deadline for Students Submitting a Thesis or Dissertation for January 2019](#)) with checklists and links back to the appropriate webpage(s). The intent is to make what is a complex process easier to navigate during a time that students find particularly stressful. The new webpages and calendar events debuted on August 1, 2018.
- The OGSR introduced a new requirement, also effective August 1, 2018, that the format for the Approval page for either a thesis or dissertation must be approved *in advance* of securing signatures from the members of the candidates' defense examination committee. This requirement has been initiated in an effort to eliminate the need to secure a second round of signatures following a successful defense examination – an occurrence that was happening far too often, and adding to the stress – when a student did not seek clearance in advance.

Course Approvals and Revised Degree Requirements

AMERICAN STUDIES

The following changes were approved by COGS on April 26, 2018.

DEGREE REQUIREMENT CHANGE:

American Studies, Ph.D.

Colloquium Requirement

Students should assemble a qualifying examination committee and arrange a colloquium to confirm plans for the exam no later than the fourth week of the third year of study. Preparation for the colloquium is, in effect, an extensive assessment by students of what they have accomplished and where they wish to go. To this end, students must prepare three documents to be distributed to all members of the exam committee at least two weeks prior to the colloquium:

- reading lists defining major and minor fields of study for the qualifying exam
- an intellectual autobiography (not to exceed 1000 words in length), which traces the student's development through coursework, reading, internships, independent research, etc., from entry into the Program to the final preparation for the colloquium
- a one-page summary of the dissertation topic or topics that the student proposes to address

The following administrative changes were approved by the Dean of Graduate Studies and Research following a request from the Program Director and the Director of Graduate Studies for American Studies at a meeting on June 5, 2018.

ADMISSION REQUIREMENT CHANGE:

All applicants are required to submit test scores, transcripts, letters of recommendation, a sample of writing up to 20 pages in length, and a response to an additional question. American Studies requires candidates to submit three scores for a GRE test taken within five years prior to application: Verbal, Quantitative, and Analytical Writing. The Miller Analogies test is not acceptable. Foreign applicants must also report scores on the Test of English as a Foreign Language (TOEFL). 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. The application deadline for students intending to begin graduate work in the fall semester is January 1. To ensure full consideration for admission and financial assistance, applications, including all supporting materials and test scores, should be completed by December 1. Applications received after December 1 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 funding support.

APPLIED SCIENCE

The following changes were approved by COGS on April 26, 2018.

COURSE DESCRIPTION CHANGE:

APSC 755 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.

**COURSE REQUIREMENT CHANGE:
APPLIED SCIENCE MS AND PHD**

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, ~~APSC 755—Nonlinear Dynamics~~ **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.

BIOLOGY

The following changes were approved by COGS on March 29, 2018.

COURSE ADDITION:

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.

The following changes were approved by COGS on April 26, 2018.

DEGREE REQUIRMENT CHANGE:

Comprehensive Exam Requirement

Each student must pass a Graduate Student **Qualifying** 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.

The following changes were approved by COGS on May 3, 2018.

COURSE ADDITION:

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

CHEMISTRY

The following changes were approved by COGS on December 5, 2017.

COURSE DESCRIPTION CHANGE:

CHEM 650 - Graduate Studies in Chemistry

Fall and Spring (42) 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 (21) Pike-Poutsma. Prerequisite(s): CHEM 650

Continuation of CHEM 650

The following changes were approved by COGS on April 26, 2018.

COURSE ADDITION:

CHEM 556 - Mass Spectrometry

Spring (3) Poutsma.

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

DEGREE REQUIRMENT CHANGE:**Comprehensive Exam Requirement**

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

COMPUTER SCIENCE

The following changes were approved by COGS on April 26, 2018.

COURSE ADDITIONS:

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 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.

COURSE DESCRIPTION CHANGES:

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 ~~542~~ 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

The following changes were approved by COGS on May 3, 2018.

COURSE ADDITIONS:

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 classification and regression. Topics include decision trees, linear and nonlinear regression, artificial 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 674 - GPU Architectures and Programming

Prerequisite(s): computer architecture and design

This course provides an indepth 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.

HISTORY

The following changes were approved by COGS on October 10, 2017. The changes to the number of credit hours for HIST 700 and HIST 800 were approved on March 29, 2018. The renumbering of HIST 710 was approved on April 26, 2018. Both the latter changes were made in response to a review and revision of the common course numbers for Graduate Arts & Sciences.

DEGREE REQUIREMENT CHANGE:

History, M.A.

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 3 1-12*) (Course required but not for credit)
- **HIST 701 - Historian's Craft** (3)
- **HIST ~~710~~ 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)
- Upon approval by the Director of Graduate Studies, students may take up to 6 credits in HIST 590 or graduate-level courses in other departments/programs not cross-listed under History. These courses will usually serve as a substitute for HIST 715, and if appropriate, HIST ~~710~~ 712.

DEGREE REQUIREMENT CHANGE:
History, Ph.D.

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*) (Total of 6 credits)
- **HIST 701 - Historian's Craft** (3)
- **HIST ~~710~~ 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** (*3 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.
- Upon approval by the Director of Graduate Studies, students may take up to 6 credits in HIST 590 or graduate-level courses in other departments/programs not cross-listed under History. These courses will usually serve as a substitute for HIST 715, and if appropriate, HIST ~~710~~ 712.

The following changes were approved by COGS on April 26, 2018.

COURSE DESCRIPTION CHANGE:

HIST ~~710~~ 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.

PUBLIC POLICY

The following changes were approved by COGS on March 15, 2018.

COURSE ADDITION:

PUBP 595 – William & Mary Policy Review

Fall and Spring Variable credit, 1 to 3 credits 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.

COMMON COURSE NUMBERS

The following changes to the common course numbers were approved by COGS on March 29, 2018

COURSE DESCRIPTION CHANGES:

666 - Directed Studies

Fall and Spring (3 1-12) Staff. Graded Pass/Fail.

700 - Thesis

Fall and Spring (3 1-12) Staff. Graded Pass/Fail.

800 - Dissertation

*Fall and Spring (3 1-12) Staff. Graded Pass/Fail.**This course may be repeated, but no more than 6 12 semester credit hours may be used to satisfy degree requirements for a student submitting a dissertation.***COURSE ADDITION:**

710 - Research Project

*Fall and Spring (2) Staff. Graded Pass/Fail.**May not be repeated. Semester credit hours earned may be used to satisfy degree requirements for a non-thesis master's (only).***GRADUATE CENTER**

The following changes were approved by COGS on December 5, 2017.

COURSE DESCRIPTION CHANGES:

GRAD 501 – English Conversation and Pronunciation

Fall (0 credit) Staff. 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. ~~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 503 – ~~Listening, Speaking & Pronunciation Skills~~ Extended Discussion and Active Listening Skills*Fall (0 credit) Staff. 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 – ~~Oral Presentation Skills~~ Academic Public Speaking*Fall (0 credit) Staff. 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.

The following changes were approved by COGS on March 15, 2018.

COURSE ADDITION:

GRAD 514 - Tools for Engaged Humanists

(0 credit) Staff. 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.

COURSE DESCRIPTION CHANGES:

GRAD 540 510 - 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 time supported by individual help, as needed.

GRAD 540 512 - 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.

The following changes were approved by COGS on May 3, 2018.

COURSE ADDITION:

GRAD 502 - Effective Conversation

Spring (0 credit) Martha Young. 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.

GRADUATE REGULATIONS

The following changes were approved by COGS on November 7, 2017.

GRADING AND ACADEMIC REQUIREMENTS

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.

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.

The following changes were approved by COGS on March 29, 2018

A&S: Requirements for Degrees

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](#) in the Graduate Arts & Sciences Catalog.

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 semester 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.

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.

The following changes were approved by COGS on April 26, 2018

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.

Graduate Center Annual Report 2018

Staff and Facilities

The Graduate Center organizes and sponsors a variety of activities, events, and zero-credit courses for W&M graduate and professional students. Sarah Glosson, Director of the Arts & Sciences Graduate Center, administers the Center, which resides in Stetson House at 232 Jamestown Road.

In Fall 2017, Spring 2018 and Summer 2018, five W&M faculty and staff members taught fifteen Graduate Center courses. The Graduate Center continued to work collaboratively with other W&M offices and schools to expand the scope of activities and events offered in order to enhance the participation of all A&S graduate students, as well as W&M undergraduate students when appropriate.

Graduate Center Highlights

Appendix I provides a listing and summary of participation in selected Graduate Center activities, events, and courses since Fall 2012.

- GRAD Courses:** Total course enrollment for the calendar year was 105. The students enrolled were a mix of domestic and international graduate students from A&S, Business, VIMS, and Education. The director of the Graduate Center continued a process of reviewing and updating the GRAD course curriculum to better address current needs of A&S graduate students. The English language courses received particular attention. Two new GRAD courses were added: Science Writing Retreat (510) and Effective Conversation Skills (502). Computing for the Humanities (512), the popular programming boot camp continues to be offered in January and May. Increasingly, in order to better fit students' schedules and research demands, GRAD courses are offered as one-week "boot camps" rather than as 10-week courses.
- 3MT:** In October 2017, the Graduate Center offered the second Three Minute Thesis Competition hosted by Arts & Sciences. The OGSR and GSAB sponsored \$1,000 in prizes. Eleven students competed before an audience of 50 and a panel of four judges. Raffle prizes for the audience and other supplies for the event were sponsored by the GSAB. The event was held in ISC 1221.
- Graduate Writing Resources Center:** In recent years, the Writing Resources Center, staffed by undergraduate writing consultants, has seen sharp increase in appointments requested by graduate students. To meet this growing need, the Graduate Center partnered with the Writing Resources Center and WRC director Sharon Zuber to pilot a Graduate Writing Resources Center (GWRC) in Spring 2017. In 2017-18, three graduate students from A&S and one in Education were hired and trained in peer writing consultation at the graduate level. The GWRC offered a total of 159 consultations. Write-Ins, a new GWRC sponsored opportunity for lightly facilitated quiet writing time, were also popular with 30 participants in 9 sessions (Saturdays) in the fall and 68 participants in 22 sessions (Saturdays and Wednesdays) in the spring.
- Professional Development Workshops:** In partnership with W&M Libraries, the Cohen Career Center, and the Reves Center, the Graduate Center offered/supported nine workshops and panels on a variety of topics including Academic Writing, Humanities Job Market Tips, Digital Scholarship, Preparing for the Scientific Job Market, Applying for Fellowships, and more. Attendance across all workshops totaled roughly 105 attendees.
- GSAB Mentoring Program:** The goal of this program is to foster one-on-one mentorships intended to help students build professional skills. In Spring 2018 we piloted this new program with volunteer mentors from the GSAB. Thirteen students signed up to participate and 9 GSAB members served as mentors. Feedback was positive and the program will continue with modest expansion.

Other Activities Sponsored by the Office of Graduate Studies and Research

- Graduate Research Symposium:** A&S graduate students on the 2018 Graduate Research Symposium Committee and the Graduate Student Association worked with the Office of Graduate Studies and Research and the Graduate Center. The 2018 Graduate Research Symposium was highly productive, with 170 oral and poster presentations and a total of more than 1100 attendees at symposium events. The presenters included 40 graduate students from 20 institutions, including Clemson University, College of Charleston, Texas A&M, University of California, Irvine, University

of Miami, University of North Carolina, University of Virginia, and Virginia Commonwealth University. Based on papers submitted by presenters and ranked by a judging panel of A&S faculty and Graduate Studies Advisory Board members, awards totaling \$10,000 were provided to W&M graduate students and visiting student scholars. To recognize the significance of the 17th annual GRS, the Interdisciplinary Award for Excellence in Research, was created. The top three papers submitted in the category of W&M Humanities and the top three papers submitted in the category of W&M Natural and Computational Sciences completed for the overall award for Excellence in Research. In 2018, the Interdisciplinary Awards was given to David De La Mater, a M.S. student in the department of Biology. The Graduate Studies Advisory Board was a symposium sponsor in 2018 and board members also participated in the symposium by chairing oral sessions, serving on the judging panels, offering recruitment and mentoring opportunities, and providing two awards of \$1,000, each, as well as corporate sponsorship for the symposium.

- **Raft Debate:** On March 15, 2018, an audience of approximately 475 undergraduate and graduate students, faculty, and community members attended the popular annual Raft Debate, sponsored by the Office of Graduate Studies and Research, the Graduate Center, and the A&S Graduate Student Association. The Raft Debate numbers among the favorite traditions featured on the William & Mary webpage <http://www.wm.edu/about/history/traditions/index.php>.
- **Newsletter:** The Graduate Center's electronic newsletter ***DID YOU KNOW THAT? (DYKT?)*** is distributed by email to A&S graduate students every Monday during the academic year. Each academic year there are approximately thirty issues of ***DYKT?*** Starting in Fall 2008, all editions of ***DYKT?*** have been posted online at <http://www.wm.edu/as/graduate/studentresources/newsletter/index.php>. March 31, 2014 witnessed the debut of a new electronic version of ***DYKT?*** with condensed entries that include links to Events posted in the [A&S Graduate Studies & Research Events Calendar](#) posted on the Graduate Studies & Research homepage (see <http://www.wm.edu/as/graduate/index.php>) that debuted the same year, as well as to webpages containing more pertinent information. The revised format, which makes it easier to scan the highlights while still allowing readers to pursue more information regarding the announcements of particular interest, has been met with great enthusiasm.

A&S Graduate Ombudsperson Report for July 2017 - June 2018

Peter Vishton, Associate Professor, Department of Psychological Sciences, vishton@wm.edu

A total of 18 graduate students contacted the ombudsperson for consultation.

A wide range of issues arose over the course of the year, including student-advisor conflicts over timing of feedback and progress toward degree completion, student collegial conflicts, and problems with the payroll office.

The time-scale of meetings varied widely. The shortest cases were resolved through a meeting and set of e-mails exchanged within a few days. The longest case required an extensive set of conversations and interactions with several professors and a director of graduate studies.

I presented a discussion of "pedagogical pitfalls" with incoming graduate students at the graduate school orientation. In part this was to discuss the role of graduate students as teachers, but primarily the aim was to increase students' familiarity with the Ombudsperson and the process of addressing potential grievances.

I participated in meetings of the Committee on Graduate Studies as well, with the goal of maintaining close contact with the many graduate studies programs.

I served on the search committee for the William & Mary general College ombudsperson and have been exploring ways in which our two ombudsperson positions can better cooperate for the benefit of students and the College community.

All cases have been resolved.

Committee on Graduate Studies Members, 2017-18

Virginia Torczon, Chair
Alan Braddock, American Studies
Neil Norman, Anthropology
Michael Kelley, Applied Science
Matthias Leu, Biology
Robert Pike, Chemistry
Denys Poshyvanyk, Computer Science
Rex Kincaid, Computational Operations Research
Hiroshi Kitamura, History
Jeff Nelson, Physics
Danielle Dallaire, Psychological Sciences
Elaine McBeth, Public Policy

APPENDICES

APPENDIX I

**GRADUATE CENTER PARTICIPATION
Fall 2013 - Summer 2018**

Course	F 2013	S 2014	F 2014	S 2015	F 2015	S 2016	Summer 2016	F 2016	S 2017	Summer 2017	F 2017	S 2018	Summer 2018
GRAD 501 001	6		14		11			11			9		
GRAD 503 001	10	9					9		7			8	
GRAD 503 002							9						
GRAD 505 001	10	9	5	8	11			12	9		8	3	
GRAD 505 002				10									
GRAD 512													6
GRAD 520 001									8		5	5	
GRAD 522									4				
GRAD 525	14												
GRAD 529							8			8			8
GRAD 530 001		12	7	2	10	10		8	8		9	7	
GRAD 530 002					5	6							
GRAD 540 001										9	9	13	
GRAD 540 002											9	6	
GRAD 550		8				6					4		
Course Subtotals	40	38	26	20	37	40	8	31	36	17	53	42	14
Workshops	F 2013	S 2014	F 2014	S 2015	F 2015	S 2016	Summer 2016	F 2016	S 2017	Summer 2017	F 2017	S 2018	Summer 2018
Poster Workshop - Research Symposium		10							7				
Oral Presentation Skills Workshop - Symposium									2				
Academic Writing in the US								11			18		
CV for the Humanities								29					
Job Market for the Humanities								12				8	
Prep for Provost Dissertation Fellowship Application								12			13		
CV for the Sciences								8					
Preparing for the Scientific Job Market												23	
History Careers								21					
Alt-Ac-Careers								16					
ETD/Copyright/Embargo								11	2			8	8
Digital Identity Roundtable/Digital Scholarship									16		8		
Writing Skills for Chemistry											9		
Oral Presentation Skills for Computer Science									35				
Grants and Fellowship Applications - Humanities									21				
3MT Presentation Workshop											10		
Workshop Subtotals	0	10	0	0	0	0	0	120	83	0	58	39	8
Programs	F 2013	S 2014	F 2014	S 2015	F 2015	S 2016	Summer 2016	F 2016	S 2017	Summer 2017	F 2017	S 2018	Summer 2018
Conversation Partners	60												
Graduate Research Symposium		1300		1100		1200			1100			1100	
Raft Debate	575		600		675			675				465	
Program Subtotals	635	1300	600	1100	675	1200	0	675	1100	0	0	1565	0
GRAND TOTAL	675	1348	626	1120	712	1240	8	826	1219	17	111	1646	22

APPENDIX II

APPLIED, ACCEPTED and ENROLLED

Fall 2013 - Fall 2017

		Applied	Accepted		Enrolled		Avg UG ⁽¹⁾	Avg GRE Scores ⁽²⁾		
			Total	Rate	Total	Rate	GPA	Verbal	Math	Writing
American Studies	2013	53	17	32%	5	29%	3.76	600 / 165	587 / 150	4.91
	2014	59	17	29%	7	41%	3.71	163	150	4.58
	2015	64	11	17%	4	36%	3.86	163	152	5.00
	2016	52	17	33%	8	47%	3.67	161	153	4.63
	2017	41	20	49%	10	50%	3.59	157	139	4.25
Anthropology	2013	73	26	36%	13	50%	3.52	570 / 160	640 / 153	4.25
	2014	59	15	25%	5	33%	3.41	161	154	4.83
	2015	39	7	18%	3	43%	3.72	164	157	5.16
	2016	47	9	19%	5	55%	3.76	152	156	3.75
	2017	39	13	33%	5	38%	3.65	163	155	5.00
Applied Science	2013	34	8	24%	5	63%	3.30	157	158	4.00
	2014	40	13	33%	7	54%	3.04	154	162	3.12
	2015	29	11	38%	5	45%	3.31	149	155	3.10
	2016	37	8	22%	6	75%	3.24	154	163	4.00
	2017	44	16	36%	10	63%	3.71	154	161	3.55
Biology	2013	31	14	45%	8	57%	3.46	158	156	3.61
	2014	65	22	34%	9	43%	3.59	160	154	4.57
	2015	74	11	15%	9	82%	3.66	158	157	4.40
	2016	67	13	19%	8	62%	3.49	159	156	4.62
	2017	44	10	23%	8	80%	3.60	162	155	4.70
Chemistry	2013	18	8	44%	6	75%	3.50	156	159	3.83
	2014	19	3	16%	2	67%	3.48	152	161	4.50
	2015	17	6	35%	3	50%	3.64	159	159	4.50
	2016	18	7	39%	6	86%	3.68	162	147	4.58
	2017	28	11	39%	6	56%	3.42	157	156	4.10
Computer Science ⁽³⁾	2013	118	72	61%	20	28%	3.32	420 / 155	795 / 153	3.48
	2014	118	64	54%	32	50%	3.47	473 / 155	760 / 162	3.65
	2015	166	60	36%	20	33%	3.50	650 / 154	780 / 164	3.50
	2016	141	76	54%	33	43%	3.35	153	165	3.68
	2017	131	43	38%	22	51%	3.48	155	165	3.75
History	2013	129	24	19%	12	50%	3.64	152	152	4.35
	2014	122	19	16%	12	63%	3.74	161	155	4.59
	2015	119	33	28%	12	36%	3.74	165	153	4.88
	2016	107	26	24%	18	69%	3.79	166	152	4.88
	2017	103	28	27%	18	64%	3.70	158	151	4.75
Physics	2013	96	45	47%	8	18%	3.65	155	160	3.94
	2014	112	49	44%	16	33%	3.54	153	160	3.68
	2015	122	47	39%	14	30%	3.66	154	163	3.57
	2016	101	22	22%	6	27%	3.65	157	162	3.33
	2017	105	20	19%	7	35%	3.89	153	165	3.40
Psychology	2013	96	10	10%	9	90%	3.63	162	159	4.56
	2014	112	9	8%	8	85%	3.60	161	157	4.12
	2015	83	14	17%	10	71%	3.60	158	154	4.45
	2016	107	9	8%	8	89%	3.64	160	154	4.25
	2017	78	9	12%	8	89%	3.76	160	155	4.50
Public Policy	2013	86	56	65%	21	38%	3.62	160	149	4.20
	2014	65	37	57%	20	54%	3.60	160	157	4.77
	2015	51	33	65%	18	55%	3.59	161	155	4.72
	2016	62	43	69%	19	44%	3.63	160	155	4.50
	2017	75	48	64%	22	46%	3.55	160	155	4.15

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

⁽²⁾ Average GRE scores submitted by enrolled students. 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⁾ This includes students in the Computational Operations Research.

**APPENDIX III
GRADUATE STUDENT ENROLLMENTS⁽¹⁾**

Fall 2013 to Fall 2017

Department	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
American Studies	64	57	56	45	45
Anthropology	44	41	38	38	33
Applied Science	37	36	34	34	36
Biology	24	18	20	17	16
Chemistry	10	8	5	9	13
Computer Science ²	104	107	119	107	100
History	71	66	72	55	59
Physics	73	86	91	80	63
Psychology	21	19	20	20	16
Public Policy	44	45	41	39	38
TOTALS	492	483	496	444	419

Notes:

¹ Totals include full-time, part-time and continuous enrollment registration, including (5) dual degree students in Law, Business and Marine Science in 2017.

² Includes Computational Operations Research.

**APPENDIX IV
GRADUATE STUDENT ENROLLMENT BY DEGREE FALL 2017**

Program	MA	MS	MA/PhD	MS/PhD	PhD	MPP	Total
American Studies	7		2		36		45
Anthropology	5		6		22		33
Applied Science					36		36
Biology		16					16
Chemistry		13					13
Computer Science		14		7	58		79
COR		21					21
History	16		6		37		59
Physics					63		63
Psychology		16					16
Public Policy (MPP)						38	38

	MA	MS	MA/PhD	MS/PhD	PhD	MPP	
Total Enrollment	28	80	14	7	252	38	419

**APPENDIX V
GRADUATE DEGREES AWARDED DURING THE LAST 10 YEARS
(August 2008 – May 2018)**

DEPARTMENT	PROGRAM INITIATED	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	SINCE AUG. 2008
American Studies	1982-MA	7	6	9	4	6	7	5	3	3	8	58
	1988-PhD	2	5	4	4	7	6	9	5	11	4	57
Anthropology	1979-MA	9	8	5	6	7	8	3	6	5	2	59
	2001-PhD	1	0	0	0	4	7	2	1	5	7	27
Applied Science	1970-MA/MS	2	11	4	3	4	6	2	2	0	2	36
	1990-PhD	6	3	2	2	8	4	6	2	5	5	43
Biology	1963-MA/MS	6	12	6	11	11	8	7	9	9	7	86
Chemistry	1964-MA/MS	5	4	4	7	6	6	8	4	4	7	55
Computer Science ¹	1984-MS	19	11	18	26	15	23	17	17	30	20	196
	1986-PhD	1	9	3	6	7	6	4	12	8	9	65
History	1955-MA	15	13	22	15	14	12	13	7	16	11	138
	1967-PhD	3	3	3	7	3	2	5	4	9	5	44
Physics	1959-MA/MS	11	14	13	9	13	13	5	7	18	12	115
	1964-PhD	8	6	12	6	5	5	7	9	16	16	90
PsyD	1978-PsyD	5	4	0	0	0	0	0	0	0	0	9
Psychology	1953-MA	9	8	4	7	4	8	12	7	8	10	77
Public Policy	1991-MPP	16	25	19	19	20	19	18	20	18	21	195
Totals	MA/MS/MPP	99	112	104	107	100	110	90	82	111	100	1015
	PhD	21	26	24	25	34	30	33	33	54	46	326
	PsyD	5	4	0	0	0	0	0	0	0	0	9

¹Includes Computational Operations Research.