# TABLE OF CONTENTS

**Ph.D. BIODEFENSE**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Overview</td>
<td>4</td>
</tr>
<tr>
<td>Guidelines for Ph.D. in Biodefense</td>
<td>6</td>
</tr>
<tr>
<td>The Advisor</td>
<td>6</td>
</tr>
<tr>
<td>Reduction of Credit</td>
<td>7</td>
</tr>
<tr>
<td>Education Plan</td>
<td>7</td>
</tr>
<tr>
<td>Honor System and Professional Conduct</td>
<td>8</td>
</tr>
<tr>
<td>SPGIA Policy on Plagiarism</td>
<td>8</td>
</tr>
<tr>
<td>Termination</td>
<td>9</td>
</tr>
<tr>
<td>Appeals of Termination</td>
<td>10</td>
</tr>
<tr>
<td>Time Limit</td>
<td>10</td>
</tr>
<tr>
<td>Doctoral Coursework</td>
<td>12</td>
</tr>
<tr>
<td>Qualifying Exam</td>
<td>13</td>
</tr>
<tr>
<td>Advancement to Candidacy</td>
<td>13</td>
</tr>
<tr>
<td>Who Can Be On the Dissertation Committee?</td>
<td>15</td>
</tr>
<tr>
<td>Dissertation Committee Responsibilities</td>
<td>16</td>
</tr>
<tr>
<td>Dissertation Chair</td>
<td>16</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS (continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissertation Proposal</td>
<td>18</td>
</tr>
<tr>
<td>Dissertation Research</td>
<td>19</td>
</tr>
<tr>
<td>Dissertation Defense</td>
<td>20</td>
</tr>
<tr>
<td>Dissertation Format and Delivery of Final Copies</td>
<td>21</td>
</tr>
<tr>
<td>Guidelines for Graduate Certificate Programs</td>
<td>23</td>
</tr>
<tr>
<td>Conference Support</td>
<td>25</td>
</tr>
<tr>
<td>Educational Travel</td>
<td>25</td>
</tr>
<tr>
<td>Tidbits</td>
<td>26</td>
</tr>
<tr>
<td>Appendix 1: Biodefense Core Courses</td>
<td>27</td>
</tr>
<tr>
<td>Appendix II: Biodefense Elective Courses</td>
<td>28</td>
</tr>
<tr>
<td>Appendix III: Non Biodefense Electives</td>
<td>33</td>
</tr>
<tr>
<td>Appendix IV: Biodefense Faculty</td>
<td>36</td>
</tr>
<tr>
<td>Appendix V: SPGIA Faculty and Their Research</td>
<td>42</td>
</tr>
<tr>
<td>Appendix VI: International Student Services</td>
<td>55</td>
</tr>
<tr>
<td>Appendix VII: University Services</td>
<td>56</td>
</tr>
<tr>
<td>Appendix VIII: Forms</td>
<td>58</td>
</tr>
</tbody>
</table>
Program Overview

The goal of the Biodefense Program is to educate the next generation of biodefense and biosecurity professionals and scholars. The program operates at the nexus of science and policy to provide students with the knowledge, skills, and training to assess the risks posed by natural and man-made biological threats, while teaching them to develop strategies for reducing these risks to national and international security. The Biodefense program seeks to train students for employment in all sectors, including work with the U.S. government, private corporations, and non-governmental organizations. The program provides students with a broad background in the science and technology of biodefense, while giving them the opportunity to specialize in the narrower fields of International Security; Terrorism and Homeland Security; or Technology and Weapons of Mass Destruction.

By combining a foundation in the biological sciences with a focus on policy analysis, the GMU Biodefense Program is the first of its kind in the United States to offer a broad program of study in the defense against all biological threats. The risks posed by these threats have steadily increased due to globalization, advances in science and technology, the changing nature of conflict, and a more nuanced definition of security. The dual-use nature of the biotechnology revolution and accelerating pace of innovation in the life sciences presents the world with both new opportunities and new dangers. The 2001 anthrax letter attacks highlighted the vulnerability of modern society to biological terrorism. The mounting toll of HIV/AIDS, the emergence of new infectious diseases such as SARS and highly pathogenic avian influenza, and the potential for an influenza pandemic reinforce the need for a comprehensive biosecurity strategy to address the risks posed by naturally occurring diseases at home and abroad. The globalization of science and technology, disease outbreaks, and terrorist activities underscores the need for an international response to these issues.

Preventing and responding to man-made and naturally occurring disease outbreaks requires interdisciplinary collaboration, interagency coordination, intergovernmental coalitions, public-private partnerships, and international cooperation. The Biodefense Program is designed to provide students with the knowledge and skills to bridge the gap between scientists and policy-makers on each of these levels. These skills are also essential to combating terrorism, the proliferation of weapons of mass destruction, and other transnational threats.

Students can select one of three fields for their concentration: International Security; Terrorism and Homeland Security; or Technology and Weapons of
Mass Destruction. These concentrations provide students with an in-depth understanding of the theory and practice of their chosen field. Due to the complexity and scope of biodefense and biosecurity, doctoral students are also required to take two courses in the field in which they are not concentrating.

Within the School of Policy, Government, and International Affairs, students can benefit from the extensive knowledge and experience of its renowned faculty whose areas of expertise range from CBRN weapons and terrorism to molecular and microbiology.

In addition to being able to take advantage of the array of courses within SPGIA, students in the Biodefense Program can also pursue courses in biology, bioinformatics, bioscience, health sciences, and communication. George Mason is also home to the National Center for Biodefense and Infectious Diseases and is constructing an NIH-funded Biomedical Research Laboratory to develop techniques and products for the detection, diagnosis, prevention and treatment of infectious diseases resulting from natural outbreaks, intentionally released, or genetically engineered pathogens. George Mason is also part of the Consortium of Universities of the Washington Metropolitan Areas, enabling its students to take advantage of classes offered at universities like Johns Hopkins or Georgetown.

Back to Table of Contents
Guidelines for the Ph.D. in Biodefense

In addition to meeting the following requirements for this degree, students must meet the university requirements for all master's degrees.

To receive a Ph.D. in Biodefense, students must complete a minimum of 72 credits. Students are strongly encouraged to take the core courses as early as possible because they provide the foundation for the rest of the program. The courses that students plan on taking should be approved in an Education Plan designed by the student and his/her advisor during the student’s first semester. Students may take up to 12 credits of courses outside of the Biodefense Program with prior written approval of their advisor. Consult with the graduate program director or coordinator for a list of BIOD electives and approved non-BIOD electives that can be used to fulfill degree requirements.

The Advisor

Key to each student’s success in the program is close and continuing consultation with a member of the core faculty as advisor. This begins as soon as one enters the program. Initially, program administration assigns advisors based on students’ interests and on the need to balance the advising load among the faculty. Later the advisor is the faculty member who agrees to chair the student’s field research and dissertation committee, and does not have to be the person originally assigned to the students. Students may change their advisors with the agreement of both professors, provided all parties inform Ph.D. Student Services in writing. The advisor helps determine the student’s schedule of classes for each semester, answers general questions about the program, and guides the student in selecting a specialty and defining a research orientation. The advisor is the first point of contact for problems that may arise. Students must consult their advisors before any program changes are made and keep the advisor up-to-date on decisions regarding the program. The advisor helps the student with research skill preparation as well as with the formation of the field research and dissertation committees. In addition, the advisor serves as primary facilitator for the School’s evaluation of the student’s progress in the program. The advisor is the student’s advocate, and as such, the student should develop a professional relationship with him or her. It is to the student’s advantage to keep the advisor informed of his or her progress and any special circumstances that arise.

Back to Table of Contents
Reduction of Credit

Students entering the Ph.D. program with a graduate degree from George Mason or another university may be able to apply up to 30 credits toward the Ph.D. requirements. Students should meet with Peg Koback, the Graduate Coordinator, to discuss any reduction of credit. The number of credits that will be accepted will be approved by the Director of the Biodefense Program. Students and their advisors will make recommendations to the director as to how many credits should be accepted and toward which requirements they will be counted. Advisors should consider both the subject and quality of the course requirements and the quality of the student performance in the course in making decisions about prior work. Students must provide their advisors with catalog copy and syllabi for the courses they wish to have considered for prior credit. At minimum, the last 42 of the 72 hours for the Ph.D. must be earned in the program. Decisions by the advisors and the Admissions Committee regarding prior credit are sent to the Dean and Registrar for final approval on the Registrar’s Reduction of Credit form, a copy of which should be kept for the student in his or her file. **This should be done in the first semester to ensure that students can make appropriate course choices.** University standards for prior course credits are described in the University Catalog.

Education Plan

Ph.D. students are strongly encouraged to periodically submit their Education Plan form to both their advisor and the Graduate Coordinator for review. The review is to ensure that the individual is adhering to the requirements of the program. The Education Plan states what courses the student is taking or has taken to fulfill his or her degree and concentration requirements. In addition, if a Reduction of Credits is to be applied, those credits should be included on the Education Plan form. Education Plan forms are available from the Graduate Coordinator and are also available on the SPGIA web page [here](#). Any changes in the Education Plan must be documented with an amended Education Plan form signed by the student’s advisor.

It is the student’s responsibility to be aware of the requirements of the Ph.D. program and to adhere to those requirements.
The Honor System and Professional Conduct

Mason operates under an honor system that has existed in the Commonwealth of Virginia for over 150 years. Students are responsible for understanding the provisions of the code that is described in detail in the George Mason University Catalog.

The Mason Honor Code is as follows:

To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code: Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.

Ph.D. studies go hand-in-hand with participation in an academic community, and students who pursue the degree must understand and uphold the norms and values of that community. The Doctoral Program is a rigorous intellectual endeavor. Students can expect SPGIA and the university to hold them to the highest standard of scholarly conduct. Students should familiarize themselves with the “Statement of Professional Ethics” and “Statement on Plagiarism” adopted the American Association of University Professors. These statements are incorporated in the GMU Faculty Handbook, which is available on the GMU website:

http://www.gmu.edu/facstaff/handbook

As members of the academic community, students are held to these standards of professional conduct. Should disagreements between students or between a student and faculty member arise, every effort should be made to resolve these differences in a collegial manner. If this is not possible, students are responsible for taking the initiative to consult with their advisors, the Program Director, and then the Dean of the School to discuss their concerns.

SPGIA Policy on Plagiarism

The profession of scholarship and the intellectual life of a university, as well as the field of public policy inquiry, depend fundamentally on a foundation of trust. Thus, any act of plagiarism strikes at the heart of the meaning of the University and the purpose of the School of Policy, Government and
International Affairs. It constitutes a serious breach of professional ethics and it is unacceptable. Plagiarism is the use of another’s words or ideas presented as one’s own. It includes, among other things, the use of specific words, ideas, or frameworks that are the product of another’s work. Honesty and thoroughness in citing sources is essential to professional accountability and personal responsibility. Appropriate citation is necessary so that arguments, evidence, and claims can be critically examined.

Plagiarism is wrong because of the injustice it does to the person whose ideas are stolen. It is also wrong because it constitutes lying to one’s professional colleagues. From a prudential perspective, it is shortsighted and self-defeating, and it can ruin a professional career.

The faculty of the School of Policy, Government, and International Affairs takes plagiarism seriously and has adopted a zero tolerance policy. This may lead to failure for the course, resulting in termination from the program and possible termination from SPGIA. This termination will be noted on the student’s transcript. For foreign students who are on a university-sponsored visa (e.g. F-1, J-1 or J-2), termination also results in the revocation of their visa.

To help enforce the SPGIA policy on plagiarism, all written work submitted in partial fulfillment of course or degree requirements must be available in electronic form so that it can be compared with electronic databases, as well as submitted to commercial services to which the School subscribes. Faculty may at any time submit a student’s work without prior permission from the student. Individual instructors may require that written work be submitted in electronic as well as printed form. The SPGIA policy on plagiarism is supplementary to the George Mason University Honor Code; it is not intended to replace it or substitute for it. (http://policy.gmu.edu/honorcode)

Termination

The student may be terminated from the program at the end of the first year or year and a half if the faculty feels the student has not made sufficient progress or has major academic deficiencies. In addition, the student may also be terminated if an individual member of the faculty is not willing to take full responsibility for the student’s progress at that time or if the student fails to meet other program requirements. This includes, but is not limited to failing the Qualifying Examination twice.
The following is a list of reasons that will lead to a student’s automatic termination from the program:

- Receiving a grade of F in a single graduate level course.
- Receiving a grade of B- or below in two or more courses.
- Receiving a grade of B- or below in a single core course after the second attempt.
- Plagiarizing
- Failing the Qualifying Examination after the second attempt.

A student who receives a grade of B- or below in a core course must retake the course. The student must retake the course during the next term in which it is offered. Should a student fail to receive a grade of B or better in the core course on the second attempt, the student is terminated automatically from the program.

A student who is terminated from the program will receive written notification from the Doctoral Program Director. The termination is effective upon receipt of this notification. The notation of academic termination is affixed to the graduate student’s official record.

**Appeals of Termination**

A student who is dismissed from the program for any reason other than an automatic termination described above may appeal the decision to the Dean of the School. This appeal must be in writing and must be received within 30 calendar days of the date on the notice of termination. The Dean of the School may appoint a committee to review the appeal. This committee will make a recommendation concerning the appeal, and the Dean will make a final determination. This determination cannot be appealed.

There is no appeal of academic termination from the program if such action is an automatic termination that results from a student’s failure to meet the above stated requirements. However, students are entitled to an appeal of the grade that led to the termination.

**Time Limit**

For both full-time and part-time students enrolled in doctoral programs, whether entry is post-baccalaureate or post-master’s, the total time to degree will not exceed nine (9) calendar years from the time of first enrollment as a doctoral student. Doctoral students are expected to progress
steadily toward their degree and to advance to candidacy within no more than six (6) years, although colleges may set a shorter time limit.

Students who do not meet published time limits because of compelling circumstances may petition their dean for a single extension of one calendar year at any point during their program. If such an extension is granted, the total time limit for completion of the degree will not exceed ten (10) years. Reenrollment following an absence from Mason does not change the student’s time limit, which is based on the date of initial admission. Failure to meet the time limits or to secure approval of an extension request may result in termination from the program. Faculty and students share in the responsibility to progress toward completion of degree requirements, and faculty must be actively involved in helping students conform to the nine-year time limit.

Non-immigrant students in F-1 or J-1 status are further limited by the regulations governing their stay in the United States. The University issues visa documents (forms I-20 and DS-2019) that indicate the estimated length of the student’s academic program. Students who need extensions beyond the initial period of stay must request them through the Office of International Programs and Services (OIPS). Documentation of the compelling circumstances necessitating the extension request is required by federal regulations. For further information, please consult with an advisor in OIPS.

Back to Table of Contents
Doctoral Course Work (48-60 credits)

1) Seven core courses (21 credits)
   - BIOD 604 - Introduction to Biodefense I: Bacterial and Toxin Agents
     Credits: 3
   - BIOD 605 - Introduction to Biodefense II: Viral Agents
     Credits: 3
   - BIOD 609 - Biodefense Strategy and Policy
     Credits: 3
   - GOVT 500 - The Scientific Method and Research Design
     Credits: 3
   - GOVT 540 - International Relations
     Credits: 3
   - PUAD 637 - Managing Homeland Security
     Credits: 3
   - One additional advanced research course (3 credits) chosen from
     GOVT 712, GOVT 717, PUAD 646, or an alternative research course
     approved by the program director.

2) Four courses (12 credits) in one field of specialization
   - Specialization I: International Security
     - Two required field seminars (6 credits)
       - GOVT 744 - Foundations of Security Studies
         Credits: 3
       - GOVT 745 - International Security
         Credits: 3
     - Two elective courses (6 credits)
   - Specialization II: Terrorism and Homeland Security
     - Two required field seminars (6 credits)
       - BIOD 722 - Examining Terrorist Groups
         Credits: 3
       - BIOD 725 - Terrorism and Weapons of Mass Destruction
         Credits: 3
     - Two elective courses (6 credits)
   - Specialization III: Technology and Weapons of Mass Destruction
     - Two required seminars (6 credits)
       - BIOD 706 - Nuclear, Biological, and Chemical Weapons
         Policy and Security
         Credits: 3
       - BIOD 760 - National Security Technology and Policy
         Credits: 3
     - Two elective courses (6 credits)

3) Two courses (6 credits)
   Of the courses listed for the fields of specialization above, students must
   select two courses from those that are not in their chosen field.
4) Electives (9 to 21 credits)
Students complete the remaining credits through additional elective courses chosen in consultation with an advisor. These courses may be in the School or may be offered by other departments in the University.

5) Qualifying Exam
The purpose of the qualifying exam is to determine if the student is ready to engage in dissertation research. Doctoral students are eligible to take the exam at the conclusion of coursework, provided an approved Education Plan is on file in the School. The exam must be completed before the student takes dissertation proposal (BIOD 998).

The graduate office, with at least two if not three months advance notice, will announce the dates for the next cycle of qualifying exams. Students will take two day-long exams, one in “biodefense” and one in the students’ area of emphasis. Therefore, the office publishes two (2) days/dates, usually one week apart. The categories of science and policy will be on one date and the exam on the student’s field of specialization will be given on a separate date.

Each day of the exam is made up of an 8-hour session, in a university room designated by Ph.D. Student Services and supervised by Student Services staff. A computer is provided. NO NOTES/NO BOOKS/NO READING LISTS.

Exams are graded by a committee appointed by the Graduate Director. The committee reaches, through its deliberations, a single result for each answer and, then, a single result for the exam overall. The possible grades for each question and for the exam overall are FAIL, PASS and HIGH PASS. (There is not a grade of LOW PASS.).

All three categories of the exam must achieve a PASS or higher for a grade of PASS for the overall exam. Any question that is failed must be re-taken at a subsequent exam cycle (in the same category with new questions). Any category area that is failed may be re-taken no more than one time. Failing a question category twice means that the overall exam is failed, and that the student is failed from the program.

6) Advancement to Candidacy
To advance to candidacy, a doctoral student must complete all coursework and degree requirements, and pass the Qualifying Examination. An approved Education Plan form, copy of the Reduction of Credit form (if applicable), and the Advancement to Candidacy form must be submitted to the Graduate Coordinator. The forms will then be sent to the dean’s office
for approval. The University Catalog describes the requirements for doctoral degrees.

7) Dissertation Research (12-24 credits)
Once enrolled in BIOD 998 Dissertation Proposal, students in this degree program must maintain continuous registration in BIOD 998 or BIOD 999 Dissertation Research each semester (excluding summers) until the dissertation is submitted to and accepted by the University Libraries. Once enrolled in 999 students must follow the university’s continuous registration policy as specified in the Academic Policies section of the catalog. Students who defend in the summer must be registered for at least 1 credit of 999.

Students may apply to this degree a minimum of 3 and a maximum of 6 credits of 998 and a minimum of 9 and a maximum of 18 credits of 999. They may apply a maximum of 24 dissertation credits (998 and 999 combined) to the degree. Because of the continuous registration policy, students may be required to register for additional credits of these courses.

Before registering in BIOD 999, students must offer a successful public defense of the dissertation proposal. Students must present the results of the dissertation research to their dissertation committee in a seminar and defend their dissertation to the university community. Successful completion of a dissertation is contingent on approval of the dissertation committee and the dean.

- BIOD 998 - Doctoral Dissertation Proposal Credits: 1-12 credits
- BIOD 999 - Doctoral Dissertation Credits: 1-12 credits (minimum of 9 credits)

Total: 72 credits

Back to Table of Contents
**Who can be on the Dissertation Committee?**

Passing the qualifying exam will allow the student to advance to candidacy for the Ph.D. The qualifying exam must be completed before the student takes BIOD 998: Dissertation Proposal or BIOD 999: Dissertation Research. After passing the exam, the student must choose a dissertation committee. A [Committee Approval form](#) must be submitted to the Graduate Coordinator. The Program Director approves the committee and forwards it to the Assistant Dean, Graduate Program Management, and Dean for approval.

All dissertation committees must consist of at least three members of the graduate faculty, at least two of whom must be from the student’s academic unit or program faculty. The committee consists of a dissertation chair, a graduate faculty member from the School or program of the student’s field of study and at least two other members of the graduate faculty. Only a graduate faculty member with a full-time appointment at George Mason University may serve as dissertation chair. Other Mason faculty, as well as individuals from outside the university, may be appointed as additional members to the committee. Such appointments are made where the additional member’s expertise and contribution add value to the dissertation.

Student-initiated changes in the composition of the dissertation committee may occur only with the approval of the dean of the school, in consultation with the committee. Faculty may resign from a dissertation committee with appropriate notice by submitting a written resignation.

The dissertation is a professional product that not only represents the student’s level of achievement, but also the scholarship generated by the program, School, the college, and George Mason University. The dissertation is a written piece of original thinking and research that demonstrates doctoral candidates’ mastery of the subject matter, methodologies, and conceptual foundations in their chosen field of study. This is generally achieved through consideration of a problem on the boundaries of knowledge in the discipline. The dissertation committee works to ensure the doctoral candidate’s project demonstrates original research that contributes new knowledge and/or a reinterpretation of existing knowledge to the area of investigation.

[Back to Table of Contents](#)
Dissertation Committee Responsibilities

The dissertation committee works with the chair to provide advice and consultation to the candidate throughout the process of research and writing. Some expectations of the committee members are:

For the Proposal
- Meet with the student
- Advise on topic selection (e.g., appropriateness, academic value)
- Offer expertise in the member’s area of study
- Read and review the proposal in a timely manner
- Discuss any recommendations for revisions with the committee chair and student

For the Dissertation:
- Meet with the student to provide guidance and evaluation during the research and writing stages
- Review dissertation drafts in a timely manner
- Offer recommendations for revisions
- Discuss any problematic issues in the dissertation with the committee chair and student
- Approve the final draft for the dissertation defense, in consultation with the other committee members
- Members of the dissertation committee are expected to be present in person at the dissertation defense.

Dissertation Chair

Chairs serve as the major advisor and mentor to the doctoral candidates as they research and write their dissertation. Some expectations of the chair are:

For the Proposal:
- Consult and meet with the student on a regular basis
- Advise on topic selection (e.g., appropriateness, academic value)
- Guide the student in the proposal writing process (e.g., understanding the need for a clearly defined problem statement, precise research questions, viable methodology, focused literature review, and thorough bibliography)
- Counsel student on reliability and validity of data-gathering methods
- Ensure that all research activities will be reviewed by the Human Subjects Review Board prior to implementation of the research
activities. George Mason University requires that all research activities involving human subjects or data regarding human subjects that are directed by a GMU faculty member, staff member or student (including thesis and dissertation work) or involve GMU faculty, staff or students as participants, must be submitted to the Office of Research Integrity and Assurance for review and approval. Refer to http://oria.gmu.edu/home/

- The Dissertation Chair will serve as the principal investigator for the research and assumes responsibility for the legal and ethical conduct of the work.
- Facilitate committee discussions about creating and improving the proposal

For the Dissertation:
- Meet with student on a regular basis to provide guidance and evaluation during the research and writing stages
- Review dissertation drafts in a timely manner
- Offer recommendations for revisions
- Communicate with committee members
- Discuss any problematic issues in the dissertation with the committee, student, and program director
- Approve the final draft for the dissertation defense, with the concurrence of the committee members
- Attend and supervise the dissertation defense
- Attend graduation/convocation to hood the candidate
Dissertation Proposal

Students should have their dissertation committee approved before registering for BIOD 998, Dissertation Proposal. The student submits the Committee Approval Form to the Graduate Coordinator. The Graduate Coordinator will then give the student a CRN so that the student can register. The CRN for BIOD 998 will be different each semester. The student should request this CRN from the Graduate Coordinator no later than 2 weeks before the start of classes for the semester. Once enrolled in BIOD 998, students must maintain continuous registration in BIOD 998 each semester until a successful dissertation proposal defense has occurred.

Registration for dissertation proposal (998) must be completed by the end of the schedule adjustment period as published in the Schedule of Classes. Failing to register on time in a particular semester does not alter the requirement for continuous registration for 998.

It is essential for students to keep in touch with their committee members, especially their dissertation chairs. Students should avoid surprising their committees with what they think are finished products. The expectation is that students correspond regularly with their committee members, sending outlines and ideas, and reporting progress on the research. It is the responsibility of the student to keep the committee informed of the status of the research and writing.

Once the committee has reviewed and approved the proposal, the student schedules the defense with the help of Ph.D. Student Services. At the defense, the student makes an oral presentation of the proposal to the committee and any other faculty, fellow students, or outside scholars who wish to attend.

In scheduling the defense, it is the student’s responsibility to ensure that all members of the committee are available and will be present for the defense. This is especially important during the summer, as faculty members are not obligated to be available during summer session. Any request for exceptions to these requirements must be made well in advance in writing by the student’s committee chair and approval by the Program Director and the Dean.

Students must submit to Ph.D. Student Services at least 15 days before the scheduled date of defense:
• An e-mail with the proposed dissertation title, date and time of defense, names of the committee members, and an abstract of no more than 100 words.

The dissertation committee will evaluate the dissertation proposal for originality, feasibility, comprehensiveness, and the likelihood that it will make a scholarly contribution to the field. After the proposal defense, the student is responsible for collecting faculty signatures on and submitting the Dissertation Proposal Defense form to Ph.D. Student Services.

Back to Table of Contents

Dissertation Research

The student must pass BIOD 998 Dissertation Proposal to be able to register for BIOD 999 Dissertation Research.

The doctoral dissertation is a critical element of advanced research-based education. A dissertation is expected to contribute significantly to new knowledge and understanding of the world in which we live. It builds on the best of what has been discovered and understood by scholars who came before, and it provides a foundation on which further inquiry and additional understanding can be built in the future. Occasionally, a dissertation results de novo from a blinding flash of original insight. However, most often a dissertation represents a logical extension of past work and demands that the author have a comprehensive understanding of prior work in the chosen field of inquiry. Thus, a substantial part of the effort of doing research and writing the dissertation is devoted to building and codifying that base of prior knowledge.

The School of Policy, Government, and International Affairs expects its candidates’ doctoral dissertation to represent outstanding contributions to the base of scholarly inquiry relevant to biodefense. A candidate’s dissertation research should be significant to some biodefense issue of importance. Thus a marriage of scholarship and relevance is the hallmark of a good dissertation. A dissertation should incorporate the best professional practices related to style, format, referencing, graphics, and language. Publication is an appropriate goal of any dissertation, and candidates should write with that goal in mind. All SPGIA students are required to submit their dissertations to the electronic Mason Archival Repository Service (MARS) in order to make their research available to the greater scholarly community.

Students working on dissertation research must register for a minimum of 3 credits of BIOD 999 per semester (excluding
summers) until they have completed the minimum number of credits of 999 required by their degree program. Then, they must register for 1 credit of BIOD 999 per semester until the dissertation is complete. See the “Full Time Status of Graduate Students” section of the University Catalog for more information.

Registration for dissertation research (BIOD 999) must be completed by the end of the schedule adjustment period as published in the Schedule of Classes. Failing to register on time in a particular semester does not alter the requirement for continuous registration for 999.

Policies and procedures for the submission of the dissertation can be found on the University and Dissertation & Thesis Services (UDTS) website at http://thesis.gmu.edu/. It is critical that the Ph.D. student fulfill the requirements prior to defending the dissertation.

**Dissertation Defense**

The candidate must defend the dissertation in public before the dissertation committee, and members of the University community who wish to attend.

As with the dissertation proposal defense, candidates will contact Ph.D. Student Services for a room and equipment reservation. Candidates must submit the following to Ph.D. Student Services at least 3 weeks before the scheduled date of defense:

- A signed Oral Dissertation Defense Readiness form
- An email including the dissertation title, date and time of defense, all committee members, and an abstract of NO MORE THAN 100 WORDS

At the same time, the candidate must provide copies of the dissertation to all members of the dissertation committee. The candidate also must place a copy on reserve at the Fairfax Campus Library Reserve Desk so that it is available to the University community at least three weeks before the scheduled oral defense. In scheduling the defense, it is the candidate’s responsibility to ensure that all members of the committee are available and will be present for the defense. This is especially important during the summer, as faculty members are not obliged to be available during summer session. Any requests for exceptions to these requirements must be made well in advance in writing by the student’s committee chair and approved by the Program Director and the Dean. Candidates must be registered for at least one credit of BIOD999/GOVT 999 during the semester in which they graduate. August graduates must register for summer session.
Policies and procedures for the submission of the dissertation can be found on the University and Dissertation & Thesis Services (UDTS) website at http://thesis.gmu.edu/. It is critical that the Ph.D. student fulfill the requirements prior to defending the dissertation.

At the close of the defense, the dissertation committee makes final judgments for approving the dissertation. The doctoral candidate is responsible for making all required changes promptly, submitting the original and required copies, and obtaining signatures. Final approval for the Dissertation is given by the doctoral dissertation committee, Department Director and Dean, all of whom must sign the final copy.

For a dissertation to be approved, all members of the committee must sign. If a committee member refuses to do so, the student or any member of the committee may petition the Dean. The Dean may seek the advice of outside reviewers to provide assessment of the work. The final decision is that of the Dean and is not subject to appeal.

The student must defend the dissertation within 9 years of beginning the program, and 3 years of advancing to candidacy. Students must file their Intent to Graduate with the Registrar’s office the semester BEFORE they plan to graduate. Please consult the following website for further information on graduation timelines: http://registrar.gmu.edu/graduation/index.html.

University rules on the appointment of dissertation committees, time requirements, and presenting and formatting for the dissertation can be found in the University Catalog.

Back to Table of Contents

Dissertation Format and Delivery of Final Copies

Candidates are required to follow the University’s “Thesis, Dissertation, or Project Guide.” The University rigidly applies its requirements for format, graphics, style, and timeline. It is the responsibility of the candidate to follow the established guidelines, available on the web at:

http://thesis.gmu.edu

The university requires a format review by the University Dissertation & theses Services (UDTS) coordinator in Fenwick Library. The candidate should forward a copy of the dissertation to the Coordinator as soon as possible before the defense to allow time to make the necessary changes to
the document. The Coordinator reviews the completed dissertation for compliance with the guidelines. The Coordinator does not assume responsibility for editing or putting the dissertation in final form, which is fully the responsibility of the candidate. UDTS is in Room C-203 Fenwick Library on the Fairfax Campus, MS 2FL, telephone (703) 993-2222.

Once the candidate receives all necessary approvals, the dissertation, must be submitted to the university under the Mandatory Electronic Submission Policy and will be placed in the Mason Archival Repository Service (MARS). It is the candidate's responsibility to review the dissertation submission information available online and to contact the UDTS Coordinator to understand the submission requirements. Please note that the School of Policy, Government, and International Affairs requires immediate availability of all SPGIA dissertations.

Back to Table of Contents
Guidelines for Graduate Certificate Programs

The Biodefense Graduate Program offers four, fifteen credit graduate certificates listed below. Each certificate has a specialized focus within the field of security studies. The certificates require 2 core courses and 3 electives.

Selecting Electives
Electives for your certificate will be selected in consultation with your assigned advisor. You must turn in your approved Education Plan to Fairfax Student Services in Robinson Hall A204 to receive credit for the electives you plan to take. Electives that have not been approved by your advisor will not count towards the certificate.

Declaring Certificate as a Secondary Program
Students pursuing a certificate as a secondary program to the Ph.D. must be admitted to the graduate certificate program at least one semester before completion of certificate requirements.

Students may be enrolled in one graduate certificate program while they pursue a master’s or doctoral degree. To add the CASR certificate to your record, students must submit a Secondary Program Application to Fairfax Student Services in the Graduate Office (Robinson Hall A204). Supplemental application materials (i.e. as goals statements, new GRE scores, and transcripts) will be waived.

Transferring Certificate Credits to Ph.D.
Students who have completed the a Biodefense Program graduate certificate may subsequently be approved to apply the credit hours for the certificate to the Ph.D. as long as the courses for the certificate were taken within six years of official enrollment into the Ph.D. degree program. All 15 credits will transfer into the Ph.D. Biodefense program.

Time Limit
The time limit for completion is six years from the date of admission to the graduate certificate program. International students attending in F-1 or J-1 status have more restrictive time limits; contact the Office of International Programs and Services for information. The time limit is not extended because of an absence and subsequent re-enrollment into the graduate certificate program. Failure to meet the time limit or to secure an extension request may result in termination from the program.
**Terrorism and Homeland Security Certificate**
The certificate in terrorism and homeland security is an interdisciplinary introduction to the phenomenon of modern terrorism and its implications for US domestic and foreign policy. It focuses on multidisciplinary analysis and holistic cross-sectorial approaches to long-term prevention of and response to terrorism.

**Global Health & Security Certificate**
The certificate in global health and security provides an introduction to the intersection of global public health and security, covering topics such as emerging infectious diseases, biosurveillance, the development of vaccines, and emergency response to public health disasters.

**Science, Technology, and Security Certificate**
The certificate in science, technology, and security provides an introduction to the intersection of science and security, covering topics such as the technology of CBRN weapons, proliferation, technical countermeasures, and the role of science and technology in the policy making process.

**Biodefense Certificate**
The certificate in biodefense provides an interdisciplinary introduction to manmade and natural biological threats, including a background in the science and technology of biodefense and the specialized areas of threat assessment, non-proliferation, and medical and public health preparedness.

[Back to Table of Contents]
CONFERENCE SUPPORT

SPGIA may award student research grants for dissertation research (e.g., expenses associated with original data collection), presentation of a paper at a discipline-appropriate conference, and other expenses related to their doctoral studies. In order to apply for funds, a student must submit a written proposal, supporting documentation, a budget, and approval from the advisor. The student must submit all materials and have them approved prior to purchase and travel. Applications are considered on a case-by-case basis throughout the year. Details about the application process are available on the SPGIA website.

Educational Travel

The following George Mason University policy pertains to all Ph.D. students conducting research outside the U.S. as part of their studies with GMU.

http://globaled.gmu.edu/how/howto.html

Students pursuing independently arranged International Educational Travel experiences such as internships, independent study, service learning, or dissertation research must:

1. Register travel with the Center for Global Education;
2. Sign and file Acknowledgement of Risks and Medical Consent Form;
3. Attend any required orientations;
4. Pay applicable tuition, administrative and program fees, if any;
5. Comply with policies and procedures regarding academic advising;
6. Abide by applicable University regulations and policies, including but not limited to the University Catalog, the Code of Student Conduct, and University drug and alcohol policies; and
7. Students must purchase the University-approved travel insurance for the duration of the International Educational Travel.

Back to Table of Contents
Tidbits

Social Media

The Biodefense Program has a strong internet presence, and all students are encouraged to connect and engage with the program online.

**Mason Biodefense Blog**: The blog is a compendium of all that the program does – on it you’ll find everything from analysis of current biodefense-related world news to copies of the most recent student publications. With content updated daily and the weekly Pandora Report, we encourage you to check it out and contribute!

⇒ PandoraReport.org

**Mason Biodefense Twitter**: Follow us to keep up on all the most relevant biodefense, public health, and international security news.

⇒ @MasonBiodefense

**Mason Biodefense LinkedIn**: The LinkedIn group is 947 members and counting! With members range from current students to professionals well-established in the field, we strongly encourage you join and start interacting.


**Mason Biodefense Facebook Page**: We post everything from School news to job and internship opportunities. Like us and never miss another zombie apocalypse article again.

⇒ Facebook.com/gmu.biodefense

[Back to Table of Contents]
APPENDIX 1: CORE BIODEFENSE COURSES

CORE COURSES
BIOD 604: Introduction to Biodefense I: Bacterial and Toxin Agents (3:3:0)
   Required course covering the microbiology, pathogenesis, metabolism, and clinical effects of bacterial and toxin agents that pose global public health threats or can be utilized as biological weapons.

BIOD 605: Introduction to Biodefense II: Viral Agents (3:3:0)
   Required course covering the microbiology, pathogenesis, and clinical effects of viral agents that pose global public health threats or can be utilized as biological weapons.

BIOD 609: Biodefense Strategy and Policy (3:3:0)
   Introduces students to the biodefense and biosecurity strategies and policies of the United States, other nations, and international organizations. Evaluates the effectiveness of these policies in strengthening defenses, improving intelligence, increasing oversight, enhancing nonproliferation, and reinforcing norms. Examines the interaction of biodefense and biosecurity with homeland, national, and international security.

GOVT 500: Research Methods in Political Science (3:3:0)
   Introduces research methods and data sources to study political science and practice of government. Topics include measurement of political concepts, research design, archival research techniques, survey research and case study development, and data analysis with elementary statistics.

GOVT 540: International Politics (3:3:0)
   Focuses on changing structure of international politics, post cold war security issues, effect of globalized economy and information technology revolution, enhanced role of global corporations and nongovernmental organizations, and rise of nonsecurity issues in emerging international agenda.

PUAD 637: All Hazard Planning and Preparedness (3:3:0)
   Focuses on the Department of Homeland Security and will cover the statutory law that provides the foundation for the department, the resources appropriated to the department, the determination of strategy and priorities, the development of operational capacity, and other challenges associated with top-level (secretarial) management of the department and its principal bureaus.

Back to Table of Contents
APPENDIX II: ELECTIVE COURSES

BIOD 610: Advanced Topics in Biodefense (1-4:1-3:0-6)
Different topics, depending on instructor’s specialty. Topics include legal, ethical, scientific, and political aspects of biodefense, emphasizing current problems and research. May be repeated when topic is different.

BIOD 620/GOVT 739: Health and Security (3:3:0)
Explores issues emerging from the interaction of health and security that represent novel challenges to policy makers confronting a rapidly changing security landscape. Presents the major lines of discourse in the academic literature examining linkages between health and security. The impact of the AIDS epidemic on national and regional security, the role of health issues in post-Cold War conflict situations, and the security implications of advances in the life sciences.

BIOD 621/GOVT 741: Ethics and International Security (3:3:0)
Challenges students to wrestle with dilemmas raised by the desire to behave ethically in an international system in which consensus about ethical matters is absent. Students will develop, apply, and justify their own perspective on an ethical problem related to international security using ethical theory and social science research. Ethical issues related to nuclear, biological, and chemical weapons that confront researchers, policy-makers, and practitioners will be addressed.

BIOD 622/GOVT 739: Negotiating in the International Arena (3:3:0)
Provides students with the concepts and tools for analyzing complex negotiation processes and introduces them to the challenges facing international negotiators. Students will read about the frameworks and perspectives that have guided the scholarly research on negotiation as well as the latest findings from that research, analyze complex cases of actual negotiations in the security, trade, and environmental areas, and negotiate key issues on the agendas of nations and international organizations.

BIOD 705/GOVT 741: Intelligence: Theory and Practice (3:3:0)
Provides students with an understanding of the theory and practice of intelligence, including the intelligence cycle, organization of the intelligence community, and the origins and impact of recent reforms. Examines the capabilities and limitations of the different collection disciplines, analytic methodologies and pathologies, and the relationship between intelligence and policy. Analyzes the challenges posed by collecting and analyzing intelligence on weapons of mass destruction programs conducted by states and terrorists.
BIOD 706/GOVT 741: Nuclear, Biological, and Chemical Weapons Policy and Security (3:3:0)
Explores the causes, conduct and consequences of the proliferation of nuclear, biological, and chemical weapons. Will provide students with an understanding of the historical, technological, normative and strategic factors that have promoted and restrained the spread of these weapons. Will address the motives for states to develop these weapons and the debate over the security implications of nuclear, biological, and chemical weapon proliferation.

BIOD 709/GOVT 741: Nonproliferation and Arms Control (3:3:0)
Examines the array of national and international measures utilized to slow, halt, and reverse the spread of nuclear, biological, chemical, and missile weapons. The theory and practice of proliferation will be explored to provide insights into the supply and demand aspects of proliferation.

BIOD 710: Approaches to Bioweapon Medical Treatment and Response (3:3:0)
Examines research, treatment, and preparedness strategies against natural and man-made biological threats. Focuses on various strategies including immunological, pharmaceutical, and medical treatment methodologies and designs.

BIOD 722/PUAD 632/GOVT 739: Examining Terrorist Groups (3:3:0)
Introduces students to the subject of terrorism including the history and evolution of terrorism, case studies of key terrorist groups, the current nature of the terrorist threat, and counterterrorism strategies.

BIOD 723/PUAD 738: Legal Dimensions of Homeland Security (3:3:0)
Introduces students to the impact of legal issues on homeland security and biodefense. Topics to be addressed include the origins of the Department of Homeland Security, the relationship between public health and law enforcement, the role of the military in homeland security, trade-offs between privacy and security, legal aspects of public-private cooperation in biodefense and homeland security, quarantine authority and enforcement, ensuring compliance with international treaties, and implementing biosecurity regulations.

BIOD 725/GOVT 739: Terrorism and Weapons of Mass Destruction (3:3:0)
Examines the capabilities and intentions of terrorists to acquire and use chemical, biological, radiological and nuclear (CBRN) weapons. The
course provides an in-depth understanding of the history of CBRN terrorism, the current challenges posed by this threat, and the range of national and international policy tools available to address this threat.

**BIOD 726: Agroterrorism and Food Security (3:3:0)**
Analyzes the threat of agricultural terrorism, including assessments of the chemical and biological agents that can be used to disrupt agriculture and livestock and the national and global economic and social impacts of these disruptions. The course will also examine strategies for enhancing the security of the food production and supply systems.

**BIOD 751: Biosurveillance (3:3:0)**
Provides students with an understanding of the capabilities required to provide reliable early warning of disease outbreaks and identify their etiological agents. The strengths and limitations of physicians, laboratories, epidemiologists, aerosol sensors, and syndromic surveillance systems will be assessed. The challenges posed by the integration and analysis of the information collected by these sources will also be considered.

**BIOD 752/PUAD 738: The Role of the Military in Homeland Security (3:3:0)**
Analyzes the role that the armed forces can play in homeland security, including historical and legal developments, the role of the National Guard, capabilities for crisis and consequence management, and case studies of military assistance to civilian authorities in response to riots, terrorist incidents, and natural disasters.

Introduces students to the intersection of science, technology, and policy in national security. Will examine the players in the formation of science policy, the roles they play, how the types, uncertainties and availability of data affect science policy debates, and how science policy decisions are made. Topics to be covered include weapons of mass destruction, non-lethal weapons, nanotechnology, bioengineering, energy security, and pandemic influenza.

**BIOD 761: Dispersal Patterns of Biological Agents (3:3:0)**
*Prerequisites: BIOD 604 and 605, or permission of instructor.*
Introduction to military and terrorist methods of dispersal patterns. Covers physics of aerosols; engineering and mechanics of building ventilation systems; and mechanical dissemination, including hand-held, automatic,
vehicle, and truck-mounted systems. Includes viability of specific agents involved.

**BIOD 766: Development of Vaccines and Therapeutics (3:3:0)**

Analyzes the process of developing new medical countermeasures against biological weapons and emerging infectious diseases such as SARS and pandemic influenza. Special attention will be paid to the scientific, technical, political, regulatory and economic obstacles to developing new vaccines and therapeutics. The causes, and potential solutions, of public and private sector failures will be examined.

**BIOD 767: Biotechnology and Biodefense (3:3:0-6)**

Introduces students to the technologies underlying biological weapons and biodefense, including genetic engineering, genome sequencing, DNA synthesis, vaccines and therapeutics, and biocontainment systems. The economic, environmental, ethical, legal, and security implications of biotechnology will also be addressed.

**BIOD 810: Advanced Seminar in Biodefense (3:3:0)**

Explores issues of contemporary and emerging concern in biodefense and biosecurity. Topics may include legal, ethical, scientific, economic, and political aspects of biodefense and biosecurity. May be repeated when topic is different.

**BIOD 780: Master’s Supervised Internship (1-6:0:0)**

Prerequisite: permission of program director or advisor. Internship under supervision of qualified professional in biodefense at a government agency, consulting firm, industrial firm, or other acceptable agency.

**BIOD 790: Biodefense Capstone (3:0:0)**

Provides students with the opportunity to hone their research, writing, collaboration, and presentation skills through completion of a capstone project that synthesizes the theoretical and subject matter knowledge students have gained in the program.

**BIOD 793: Directed Studies in Biodefense (1-3:0:0)**

Prerequisite: permission of the instructor and program director. Individualized study of topics not otherwise available in graduate program. May involve reading assignments, tutorials, lectures, papers, presentations, or lab or field study, determined in consultation with instructor.

**BIOD 798: Master’s Research Project in Biodefense (3:0:0)**
Prerequisites: 24 credits in BIOD, and permission of project director. Research project under supervision of faculty advisor, related to student’s concentration if applicable. Student produces substantial and original contribution to the field of biodefense on the model of an article in a scholarly journal. Students take either BIOD 798 or BIOD 799. Graded S/NC.

**BIOD 799: Master’s Thesis in Biodefense** (1-6:0:0)
Prerequisites: 24 credits in BIOD, and permission of thesis committee. Substantial and original research paper with guidance of faculty advisor. Thesis proposal must be approved in advance by advisor and two faculty, who comprise thesis committee. Completed research must be approved by committee and defended publicly in oral presentation. Graded S/NC.

**BIOD 890: Doctoral Supervised Internship** (1-6:0:0)
Prerequisites: permission of program director and advisor. Internship under supervision of qualified professional in biodefense at a government agency, consulting firm, industrial firm, or other acceptable agency.

**BIOD 899: Directed Research in Biodefense** (1-12:0:0)
Prerequisite: approval of program director. Research on a pertinent topic in biodefense; scope and subject determined by instructor.

**BIOD 998: Doctoral Dissertation Proposal** (6-9:0:0)
Prerequisite: advancement to candidacy or permission of program director. Work on research proposal that forms basis for doctoral dissertation under the guidance of dissertation committee. May be repeated, but only 9 credits may be applied to the degree. Graded S/NC.

**BIOD 999: Doctoral Dissertation Research** (15-18:0:0)
Prerequisite: completion of 998. Research on approved dissertation topic under direction of dissertation committee. May be repeated for up to 9 credits in a semester, but no more than 18 total. Graded S/NC.

[Back to Table of Contents]
APPENDIX III: NON-BIOD ELECTIVES

These non-BIOD electives are approved for use to fulfill concentration and/or distribution requirements. Some electives can be counted for more than one concentration. The same course, however, cannot be used to fulfill requirements in more than one concentration. See appendix 2 for details on which courses count toward particular concentrations. Students may be able to fulfill part of their concentration and/or distribution requirement with non-BIOD courses other than those listed here. Students must consult with their advisor on this matter and any substitutions must be approved by the Program Director.

GOVT 510: American Government and Politics (3:3:0)
Examines institutions and processes of American government, including separate institutions of power in national government, theory and practice of federal system, role of interest groups and political parties, and effects of media and public opinion on electoral behavior and policy making. Seminar examining normative and empirical research.

GOVT 641: Seminar in Global Systems (3:3:0)
Prerequisites: completion of all core courses. Applies systems approach to understanding global politics. Emphasizes properties and functions of global systems such as population, food, disease, energy, and trade, and how world's political systems interact with them. Discusses how governance at municipal, national, and international levels affected by global systems. Examines role of nongovernmental organizations in global affairs.

GOVT 706: Federalism and Changing Patterns of Governance (3:3:0)
Prerequisite: GOVT 510. Examines broad trends in governance, including theory and practice of key governance choices, with particular focus on intergovernmental relations and changing roles of federal, state, and local governments. May include privatization, devolution, mandating, regulatory reform, and comprehensive federalism reform.

GOVT 741: Political Islam (3:3:0)
Provides an understanding of the many ways in which the religion of Islam plays a political role in the world today. The course begins with a brief history of Islam, paying particular attention to how ideas about political community and governance have evolved over time. The course then addresses a number of key themes such as the relationship between religion and politics, the compatibility of Islamic and Western ideas about democracy, the role of women in political society, and the impact of new media and IT technologies on religio-political discourse. These issues will be
illuminated through case studies of contemporary political Islam in a broad range of geographical and cultural settings. The course will conclude with some consideration of the future of political Islam in the context of increasing globalization.

**GOVT 745: Issues in International Security (3:3:0)**
*Prerequisites: GOVT 540.* Examines nuclear strategy, arms control, U.S. defense policy, ethics and international security, and international terrorism, among other topics.

**GOVT 755: Seminar in Politics and Bureaucracy (3:3:0)**
*Prerequisite: GOVT 510.* Explores research and theory on political causes and effects of actions of government bureaucratic agencies. Readings examine origins of agencies, influences on decisions and programs, sources of internal and external accountability, pathologies of bureaucracies, and contributions bureaucracies make on effective and just governance.

**GOVT 843: Diplomacy (3:3:0)**
*Prerequisite: GOVT 540.* Advanced graduate seminar on theory and practice of diplomacy; alliance construction and destruction; coercive and cooperative diplomacy; diplomacy of certain great powers such as America, Russia, China, France, and Japan, and small and revolutionary powers. Also examines diplomacy and the media, and day-to-day diplomacy.

**PUAD 504: Managing in the International Arena: Theory and Practice (3:3:0)**
Theoretical and empirical examination of international system that both affects and is affected by decisions, behaviors, and subsystems of state and nonstate (organizational) actors.

**PUAD 630: All Hazard Planning and Preparedness (3:3:0)**
Provides an understanding of the issues associated in developing and implementing plans and policies to prepare for and respond to natural and man-made disasters. This course will use an all-hazards framework with special attention to the risks and challenges posed by nuclear, biological, chemical and radiological threats. Will address the role of interagency coordination, intergovernmental cooperation, and public-private partnerships in crisis and consequence management.

**PUAD 631: Disaster Response and Recovery Operations (3:3:0)**
Explores the principles and practices that promote effective disaster response operations and management. The course will examine the nature of
disasters, models for response operations in the United States, and responsibilities of various emergency management-related organizations.

**PUAD 635: Emergency Preparedness: Interagency Communication and Coordination (3:3:0)**

This course considers the complex relationships within governments and across sectors and levels of government for effective emergency management in planning, response, recovery, and mitigation phases. Intergovernmental management and network management theories and research will be explored to understand the nature of interorganizational problems and potential models for collaboration.

**PUAD 701: Cross-Cultural and Ethical Dimensions of International Management (3:3:0)**

To be taken in final two semesters of MPA program. Examines normative issues in management of programs in international context. Emphasizes interplay of cultural, sociopolitical, legal, and ethical factors, and management and policy problems arising from conflicting goals, values, and inequities among nations and regions.

**PUAD 727: Seminar in Risk Assessment and Decision Making (3:3:0)**

*Prerequisite: 12 graduate credits.* Examines decision making under risk and uncertainty. Readings introduce major intellectual perspectives on topic and are drawn from variety of disciplines, including biology, economics, law, and psychology. Emphasizes making actual decisions under uncertainty.

**PUAD 731: Homeland Security: Transportation Security Administration (3:3:0)**

Examines the terrorist attacks of 9/11, the vulnerabilities in the aviation security system, and reasons why elected leaders and officials did not act more decisively to improve security. Includes the development of radical Islam and the rise of Osama bin Laden and Al Qaeda. (Previously PUAD 729.)

**PUAD 750: Federalism and Intergovernmental Relations (3:3:0)**

*Prerequisites: PUAD 502, and 9 graduate credits.* Examines broad trends in governance, including theory and practice of various governance choices. Choices include privatization, decentralization of governmental activity, grants-in-aid and growth of mandates, changing role of state and local governments, proposals for reforming federalism, and regulatory reform.
PUBP 757: Public Policy in Global Health and Medical Practice (3:3:0)
Introduces international medical policy. Covers globalization of health and medical policies directed at removing disparities, financing, ethical considerations of biomedical research, and use of emerging technologies.

PUBP 758: Global Threats and Medical Policies (3:3:0)
Explores medical and health governance, biosecurity and biosafety, health and natural and human-made disasters, humanitarian and emergency assistance, vaccine development, behavior and health, critical infrastructures, bioethics and resource allocations in global context.

PHIL 642: Biomedical Ethics (3:3:0)
Prerequisite: graduate standing, or permission of instructor. Explores the application of ethical theories and principles to issues in contemporary health care. Cases central to the development of the field will be examined.

Back to Table of Contents
APPENDIX IV: BIODEFENSE FACULTY

Full-Time Faculty

Daniel Druckman is a Professor in the School of Policy, Government, and International Affairs. He has published widely on such topics as negotiating behavior, nationalism and group identity, human performance, peacekeeping, political stability, nonverbal communication, and research methodology. He received his Ph.D. in Social Psychology from Northwestern University.

Gregory D. Koblentz is an Assistant Professor in the School of Policy, Government, and International Affairs and Deputy Director of the Biodefense Graduate Program at George Mason University. Dr. Koblentz is also a member of the Scientist Working Group on Chemical and Biological Weapons at the Center for Arms Control and Non-Proliferation. His research and teaching focus on international security, terrorism, homeland security, and weapons of mass destruction. He received his Master in Public Policy from the John F. Kennedy School of Government at Harvard University and his Ph.D. in Political Science from the Security Studies Program at the Massachusetts Institute of Technology.

Allison MacFarlane is an Assistant Professor of Environmental Science and Policy, and was sworn in as chairman of the U.S. Nuclear Regulatory Commission July 9, 2012. She was nominated by President Obama and confirmed by the Senate to a term expiring June 30, 2013. Dr. Macfarlane, an expert on nuclear waste issues, holds a doctorate in geology from the Massachusetts Institute of Technology and a bachelor’s of science degree in geology from the University of Rochester. Dr. Macfarlane is an associate professor of environmental science and policy at George Mason University. From 2010 to 2012 she served on the Blue Ribbon Commission on America’s Nuclear Future, created by the Obama Administration to make recommendations about a national strategy for dealing with the nation’s high-level nuclear waste. Her research has focused on environmental policy and international security issues associated with nuclear energy, especially the back-end of the nuclear fuel cycle. In 2006, MIT Press published a book she co-edited, Uncertainty Underground: Yucca Mountain and the Nation’s High-Level Nuclear Waste, which explored technical issues at the proposed waste disposal facility at Yucca Mountain, Nevada.

Sonia Ben Ouagrham-Gormley is an Assistant Professor in the School of Policy, Government, and International Affairs. Previously, she was a Senior Project Manager for the Center for Nonproliferation Studies and Editor-in-
Chief of the NIS Export Control Observer. From 2002-2005 she conducted a study of the Anti-Plague System of Central Asia and the Caucasus. Dr. Ben Ouagrham-Gormley's main research interests are export controls and WMD-related trafficking in the former Soviet Union, the role of tacit knowledge in the transfer of BW knowledge, conversion of former biological and chemical facilities, and proliferation financing. She received her Ph.D. in Economics of Development at the Advanced School of Social Sciences in Paris, France.

Trevor Thrall is an Associate Professor in the School of Policy, Government, and International Affairs and the Director of the Biodefense. He teaches courses in international security, political communication, and U.S. military intervention. His recently edited book, *American Foreign Policy and the Politics of Fear: Threat Inflation since 9/11* (Routledge 2009), examined why and how the Bush administration was able to build public support for the war in Iraq in 2003. The companion volume to that work, *Why Did the United States Invade Iraq?* (Routledge 2011), collects competing explanations about why the administration decided to go to war in the first place. Prior to arriving at George Mason, Dr. Thrall was an associate professor at the University of Michigan-Dearborn where he directed the Master of Public Policy and Master of Public Administration programs. He received his Ph.D. in political science from Massachusetts Institute of Technology.

**Adjunct Faculty**

Denise Bakken's research investigates the hypothesis that al Qaeda executes its missions using a business method approach. During her investigations, she has identified a value factor for mission execution, communication/influence factor for mission activity, WMD list potential and profile of WMD selection criteria. Subsequent work on an Office of Net Assessment effort led to the development of the *Biotechnology Industry Competitive Intelligence Terrorism Threat Analysis Tool*, a biotechnology innovations and advancement monitor used to estimate the penetration of mal-intentioned organizations or individuals who seek to exploit the industry’s capabilities to threaten the interests of the United States and its allies. Dr. Baken retired as an Army Colonel after 28 years and a career that included positions as Chief of Staff for the Special Assistant to the Deputy Secretary of Defense for Chemical and Biological Protection where she developed and implemented chemical and biological warfare healthcare policies for the Department of Defense. Most recently she was Director, Biodefense Programs at the Center for Innovative Technology, Herndon, Virginia. She is currently Adjunct Assistant Professor of Biodefense and Biosecurity at the University of Maryland University College and Affiliate Faculty, Public and International Affairs at George Mason University. Dr.
Baken is currently President of Shield Analysis Technology, LLC, Manassas, Virginia.

**Charles Blair** is the Senior Fellow on State and Non-State Threats at the Federation of American Scientists and an adjunct professor at GMU, where he lectures on the nexus of terrorism and WMD. Since the 1980s, Mr. Blair has worked on issues relating to the diffusion and diversification of weapons of mass destruction (WMD) in the context of proliferation amid the rise of mass casualty terrorism incidents and the centripetal and centrifugal elements of globalization. Mr. Blair’s work focuses on state and violent non-state actors (VNSA) – amid a dystopic and increasingly tribal world. Before joining FAS in 2010, he was a research associate with the National Consortium for the Study of Terrorism and Responses to Terrorism (START) where, among other projects, he managed the Global Terrorism Database, the largest open-source compilation of terrorist events in the world. Mr. Blair also spent two years exploring elements of the Pakistani Neo-Taliban, and for almost a decade he has studied U.S. right-wing “White” nationalist groups, apocalyptic millenarian ideologies, and other groups with interest in and experiences with WMD. Mr. Blair has also worked with the James Martin Center for Nonproliferation Studies, the National Nuclear Security Administration, the Anti-Defamation League, and the Center for Terrorism and Intelligence Studies. Mr. Blair is also a lecturer at Johns Hopkins University where he instructs graduate students about the technologies underlying WMD.

**Roger Breeze** is the former director of Plum Island and an Adjunct Professor in the Biodefense Department, where he lectures on agroterrorism. Dr. Breeze received his veterinary degree in 1968 and his Ph.D. in veterinary pathology in 1973, both from the University of Glasgow, Scotland. He was engaged in teaching, diagnostic pathology, and research on respiratory and cardiovascular diseases at the University of Glasgow Veterinary School from 1968 to 1977 and at Washington State University College of Veterinary Medicine from 1977 to 1987, where he was professor and chair of the Department of Microbiology and Pathology. From 1984 to 1987, he was deputy director of the Washington Technology Center, the state’s high-technology sciences initiative, based in the College of Engineering of the University of Washington. In 1987, he was appointed director of the U.S. Department of Agriculture (USDA) Plum Island Animal Disease Center, a Biosafety Level 3 facility for research and diagnosis related to the world’s most dangerous livestock diseases. In that role, he initiated research on the genomic and functional genomic basis of disease pathogenesis, diagnosis, and control of livestock RNA and DNA virus infections. That work became the basis of U.S. defense against natural and deliberate infection with these
pathogens and led to his involvement in the early 1990s in biologic-weapons defense and proliferation prevention. From 1995 to 1998, Dr. Breeze directed research programs in 20 laboratories in the Southeast for the USDA Agricultural Research Service before going to Washington, D.C., to establish biologic-weapons defense research programs for USDA. He received the Distinguished Executive Award from President Clinton in 1998 for his work at Plum Island and in biodefense. Since 2004 he has been CEO of Centaur Science Group. He is currently Bio-Security Deputy Program Director, Global Security Directorate, Office of Strategic Outcomes, Lawrence Livermore National Laboratory.

**Michael Dennis** received his doctorate in the history of science from the Johns Hopkins University in 1991. He previously taught at UCSD and Cornell University as well as Georgetown University and the Northern Virginia Campus of Virginia Tech. His research interests lie in the areas of the history of American science and technology, the historiography of science and technology, and the politics of science and technology. He is completing a book manuscript entitled *A change of state: political culture, technical practice and the making of Cold War America* detailing the transformations wrought in the technical and organizational practices of researchers in university laboratories before, during and after World War II.

**Robert House** is an adjunct professor in the GMU Biodefense Program, where he teaches medical countermeasure development. He is President of DynPort Vaccine Company LLC, a CSC company, which manages product development programs for government agencies, and provides consulting, technical and program management services to companies in the biotechnology and pharmaceutical industries. DynPort’s portfolio includes vaccines and therapeutics to protect against emerging infectious diseases including biological warfare threat agents and seasonal and pandemic influenza. Prior to joining DynPort, Dr. House worked at Covance Laboratories in Madison, Wis., and IIT Research Institute in Chicago, Ill., where he managed highly successful programs in immunotoxicology assessment. He has nearly 30 years of experience in biomedical research and development, specializing in the assessment of inadvertent and therapeutic immunomodulation. Dr. House earned his Master of Science in Public Health (MSPH) and Ph.D. degrees in Medical Parasitology from the University of North Carolina School of Public Health, and is the author, co-author or editor of more than 100 journal articles and book chapters in the areas of immunotoxicology, host defense, cytokine biology and biodefense. Dr. House was also recently named Vice President Elect of the Society of Toxicology’s Biotechnology Specialty Section. He is a certified Project
Management Professional (PMP) and a Fellow of the Academy of Toxicological Sciences.

**Linda Millis** is an adjunct professor in the GMU Biodefense program, where she teaches the theory and practice of intelligence. Ms. Millis is the former Director of National Security at the Markle Foundation, a non-profit organization devoted to improving the use of information technology to address critical public needs in the areas of health and national security. Ms. Millis has more than two decades of experience with national security issues, including threat assessment, intelligence analysis, intelligence program management, domestic preparedness for bioterrorism threats, tracking the financial assets of terrorists, and protecting critical infrastructure. She has held senior positions at the National Security Agency, Central Intelligence Agency, the Intelligence Community Management Staff, the President's Foreign Intelligence Advisory Board, and the Commission on the Roles and Capabilities of the Intelligence Community (also known as the Aspin/Brown Commission). She is also a certified arms control inspector for several nuclear weapons treaties. Ms. Millis earned her MA/MS in International Public Policy from the Johns Hopkins School of Advanced International Studies.

[Back to Table of Contents]
Appendix V: SPGIA Faculty and Their Research

(may chair a doctoral committee or serve as a primary member unless otherwise noted)

**Alan J. Abramson**, Professor; Ph.D., Political Science, Yale University, 1990.
Non-profit organizations; foundations; federal budget.

Globalization; entrepreneurship; philanthropy; development and liberal democracy.

**Mark Addleson**, Associate Professor; Ph.D., Management Economics, Graduate School of Business, University of Witwatersrand, 1993.
Organizational change; knowledge management; knowledge work; work practices; organizational networks; methodology of social inquiry; Austrian economics.

**Katrin B. Anacker**, Associate Professor; Ph.D., City and Regional Planning, The Ohio State University, 2006.
Housing; housing policy; urban policy; race and public policy; real estate markets; statistical methods; qualitative methods; research writing.

**Enrique Desmond Arias**, Associate Professor; Ph.D., Political Science, University of Wisconsin, Madison, 2001.
Armed actors and governance; comparative politics; criminal organizations and conflict; drug trafficking; extortion, corruption, and racketeering; policing; democratization; research in violent settings.

**Philip E. Auerswald**, Associate Professor; Ph.D., Economics, University of Washington, 1999.
Entrepreneurship; innovation; global development.

**Ann Baker**, Professor; Ph.D., Organizational Behavior, Case Western Reserve University, 1995.
Organization change; group & organization communication to promote innovation; knowledge management; cross-cultural communication.

**Peter J. Balint**, Associate Professor; Ph.D., Environmental Policy, University of Maryland, 2000.
Environmental policy.

**Jo-Marie Burt**, Associate Professor; Ph.D., Political Science, Columbia University, 1999.
Comparative politics; Latin America; state-society relations; political violence; transitional justice.

**Ashan I. Butt**, Assistant Professor; Ph.D., Political Science, University of Chicago, 2012.
Ethnicity and nationalism; international security; international relations theory; South Asia.
Kenneth J. Button, University Professor and Director, Public Policy Doctoral Program; Ph.D., Economics, Loughborough University, 1981.
Transportation economics; transport planning; economics of privatization and regulation; environmental economics; regional economics; urban economics.

James K. Conant, Professor; Ph.D., Political Science, University of Wisconsin-Madison, 1983.
Public administration; public budgeting; homeland security; environmental politics, policy, and administration.

Timothy J. Conlan, Professor; Ph.D., Political Science, Harvard University, 1982.
Federalism; intergovernmental relations; public policy making; Congress.

Audrey Kurth Cronin, Distinguished Service Professor; D.Phil., International Relations, University of Oxford (UK), 1985.
International security; war and peace; strategy; emerging technologies; terrorism, insurgency and political violence; how conflicts end.

Kate E. N. Destler, Assistant Professor of Public Policy; Ph.D. Public Policy and Management, University of Washington, 2013.
Education policy; organizational culture and change; mixed-method inquiry; performance management; public policy process; policy implementation; public management.

Desmond Dinan, Professor of Public Policy, ad personam Jean Monnet Chair; Ph.D., Modern European History, National University of Ireland, 1985.
Global governance; European Union governance and institutions, history, and historiography.

Robert L. Dudley, Professor; Ph.D., Political Science, Northern Illinois University, 1980.
Judicial behavior; decision-making; legal processes and public policy.

Colin Dueck, Associate Professor; Ph.D., Political Science, Princeton University, 2001.
U.S. foreign policy; international relations; American defense policy; international security.

John S. Earle, Professor of Public Policy and Economics; Ph.D., Economics, Stanford University, 1988.
Labor economics and policies; human resource practices; transition; development; corporate governance and firm performance; reallocation; industry dynamics; entrepreneurship; inequality; globalization; growth and finance; political economy; institutional economics; comparative analysis of economic policies and systems; microeconometrics; program evaluation.

Stephen S. Fuller, Dwight Schar Faculty Chair and University Professor of Public Policy and Regional Development; Ph.D., Regional Planning and Economic Development, Cornell University, 1969.
Regional economic development; urban development; housing; urban planning; demographics; the Washington area’s development; economic analysis; labor force; forecasting – population, income, employment, real estate development; economic and fiscal impact analyses; economic development in developing countries.
Jonathan L. Gifford, Professor of Public Policy; Ph.D., Civil Engineering (Transportation), University of California, Berkeley, 1983. Transportation public-private partnership policy; transportation policy, planning and policy; infrastructure policy, planning and finance; urban and metropolitan planning and land use; technology standards and public policy; transportation and regional development policy; transportation finance and privatization; freight transportation in megaregions; transportation governance; infrastructure banks.

Justin Gest, Assistant Professor of Public Policy; Ph.D., Government, London School of Economics and Political Science, 2010. Comparative politics; immigration and citizenship; minority political behavior; Muslim politics; Western Europe; qualitative and multi-method inquiry.

Jack A. Goldstone, Virginia E. Hazel and John T. Hazel, Jr. Professor of Public Policy; Ph.D., Sociology, Harvard University, 1981. Revolutions and social protest; democratization; state failure and reconstruction; long-term social change; sources of economic growth; impact of global demographic change on security.

Bassam Haddad, Associate Professor; Ph.D., Political Science, Georgetown University 2002. Comparative politics; political economy; Middle East politics.

David M. Hart, Professor of Public Policy and Acting Senior Associate Dean; Ph.D., Political Science, Massachusetts Institute of Technology, 1995. Science and technology policy; U.S. public policy process; U.S. policy history, especially business, economic, and political history; international migration; entrepreneurship; global governance; manufacturing policy; energy innovation policy.

Kingsley E. Haynes, Ruth D. and John T. Hazel M.D. Endowed Chair and University Professor; Ph.D., Geography and Environmental Engineering, Johns Hopkins University, 1971. Regional economic development; infrastructure and transportation policy; resource planning and policy analysis.

Jessica Heineman-Pieper, Assistant Professor of Public Policy; Ph.D., Psychology and the Conceptual Foundations of Science, The University of Chicago, 2005. Nonviolent social movements; structural violence; globalization; cultural diversity; leadership; sustainability; social and ecological justice; philosophy of the social sciences; health and research policy; conflict resolution; relocalization.

Andrew Hughes Hallett, University Professor of Public Policy and Economics; D.Phil., Economics, University of Oxford (Nuffield College), 1976. Open economy macroeconomics; policy coordination and exchange rate management; monetary integration (monetary and fiscal union in Europe); political economy models; fiscal policy; regionalism, policy choice and reform; the theory of economic policy and institutional design; dynamic games and bargaining models; risk and decisions under uncertainty; commodity markets, financial policy and strategic trade policy; numerical methods in economics.
Mark N. Katz, Professor; Ph.D., Political Science, Massachusetts Institute of Technology, 1982. International relations; revolution; Russian politics and foreign policy.

Gregory Koblentz, Associate Professor; Ph.D., Political Science, Massachusetts Institute of Technology, 2004. International security; biological warfare; nuclear proliferation; terrorism.

Naoru Koizumi, Associate Professor; Ph.D., Environmental and Preventative Medicine, Hyogo College of Medicine, Japan, 2005, and Ph.D., Regional Science, University of Pennsylvania, 2002. Applications of quantitative modeling and Geographic Information Systems (GIS) in health and environmental policy research.

Siona Robin Listokin-Smith, Associate Professor and Director, Master of Public Policy Program; Ph.D., Business and Public Policy, University of California, Berkeley, 2007. Public finance; political economy; corporate social responsibility; corporate governance; retirement and welfare policy.

Mariely Lopez-Santana, Associate Professor; Ph.D., Political Science, University of Michigan, 2006. Comparative welfare states; comparative federalism (including decentralization and devolution); Europeanization; new modes of governance.

Stuart S. Malawer, Distinguished Service Professor of Law & International Trade; Ph.D., International Relations, University of Pennsylvania, 1976; Diploma, Hague Academy of International Law (Research Centre for International Law & International Relations) 1971; J.D., Cornell Law School, 1967. U.S. trade law; U.S. & global trade politics; international trade relations; World Trade Organization; national security law & policy.

Peter Mandaville, Professor; Ph.D., Political Science, University of Kent at Canterbury, 1999. International relations; political Islam.

John Marvel, Assistant Professor; Ph.D., Public Administration, American University, 2012. Public management issues; public sector work motivation; manager-employee relationships.

Jeremy D. Mayer, Associate Professor; Ph.D., Political Science, Georgetown University, 1996. Public opinion; racial politics; foreign policy; presidential elections; statistical methods; media politics.

Hazel M. McFerson, Professor; Ph.D., Political Science, Brandeis University, 1976. African political and social developments; ethnic and racial pluralism.

Eric M. McGlinchey, Associate Professor and Graduate Director, Political Science Program; Ph.D., Political Science, Princeton University, 2003.
Comparative politics; Eurasian politics; international political economy.

**Robert J. McGrath**, Assistant Professor; Ph.D., Political Science, University of Iowa, 2011. American institutions; state politics and policy; health policy, political methodology.

**Connie L. McNeely**, Professor of Public Policy; Ph.D., Sociology, Stanford University, 1990. Culture; science and technology policy; states and society; international development; complex organizations and institutional analysis; comparative education; stratification and inequality; race, ethnicity and nation; gender; social theory.

**Char R. Miller**, Associate Professor; Ph.D., Johns Hopkins, 1999. Ancient and contemporary political theory; political culture; violence and discipline.

**Arnauld Nicogossian**, (may serve as primary member but not as chair) Distinguished Research Professor; M.D., Tehran University, 1964; Internal Medicine and Pulmonary Medicine Fellowship, Mount Sinai Medical Center/Elmhurst City Hospital, NY; Board Certified Preventive Medicine/Aerospace Medicine, 1973. Medical and health policy; program/project management; strategic planning; biomedical and physical sciences research design; global health and preventative medicine; medical standards development and evaluation.

**Sonia Ben Oughram-Gormley**, Associate Professor; Ph.D., Development Economics, School of Advanced Social Sciences, Paris, 1988. Terrorism and weapons of mass destruction proliferation in the former Soviet Union; biological weapons threats; biosecurity; biosafety.

**Wayne D. Perry**, Professor of Public Policy and Operations Research; Ph.D., Quantitative Economics and Public Policy, Carnegie Mellon University, 1975. Science and engineering; information technology management and governance; international security and weapons of mass destruction arms control policy; nuclear proliferation and strategic stability using operations research/management sciences; statistical and stochastic models; econometrics; managerial economics; cost-benefit methodologies.

**James P. Pfiffner**, University Professor of Public Policy; Political Science, Wisconsin-Madison, 1975. The presidency; Congress; national security policy process; intelligence; public administration.

**Paul L. Posner**, Professor and Director, Master of Public Administration Program; Ph.D., Political Science, Columbia University, 1995. Political science; public policy process; intergovernmental management; budgeting; tax policy.

Priscilla M. Regan, Professor and Acting Senior Associate Dean; Ph.D., Political Science, Cornell University, 1981.
Information and communication technologies; public policy process; privacy and surveillance, e-government.

Kenneth A. Reinert, Professor of Public Policy and Director, International Commerce and Policy Program; Ph.D., Economics, University of Maryland, 1988.
International trade policy; international development policy; economic globalization.

Edward Rhodes, Professor of Public Policy; Ph.D., Public and International Affairs, Princeton University, 1985.
International relations; international security; U.S. national security policy; U.S. foreign policy; U.S. naval strategy and force posture; American isolationism; identity and foreign policy.

Hilton L. Root, Professor of Public Policy; Ph.D., Economics and History, University of Michigan, 1983.
International economics; international finance; international development; developing nations; political economy of the design and implementation of development policy; economic policy reform; North-South relations; Asian-Pacific affairs; the sciences of complexity and institutional change.

Mark J. Rozell, Professor of Public Policy and Acting Dean; Ph.D., American Government, University of Virginia, 1987.
The presidency and separation of powers; religion and politics; media and politics.

Telecommunications policy; higher education policy; ICT diffusion in developing nations; religious/theological issues in public policy formulation; knowledge management approaches in the public sector.

Matthew Scherer, Assistant Professor; Ph.D., Political Science, Johns Hopkins University, 2007.
Modern and contemporary political theory; religion and politics; constitutional law.

Laurie A. Schintler, Associate Professor of Public Policy and Director, Transportation Policy, Operations, and Logistics Program; Ph.D., Urban and Regional Planning, University of Illinois at Urbana-Champaign, 1995.
Critical infrastructure; transportation; quantitative methods; regional development; Geographic Information Systems (GIS); network analysis; housing market; science and innovation policy.

Louise Shelley, University Professor of Public Policy; Ph.D., Sociology, University of Pennsylvania, 1977.
Transnational crime; terrorism; corruption; human trafficking; illicit trade; Soviet successor states.
**Sita Nataraj Slavov**, Professor of Public Policy; Ph.D., Economics, Stanford University, 2003. Public finance; economics of aging; retirement policy; Social Security and Medicare; tax policy; economic analysis of political processes.

**Hugh T. Sockett**, Professor; Ph.D., Philosophy of Education, University of London, 1974. Teacher professionalism; political theory; democracy and education.

**Rainer Sommer**, Associate Professor of Public Policy and Enterprise Engineering; Ph.D., Software Engineering, Columbia Pacific University, 1991, and Information Technology, George Mason University, 1998. Enterprise business systems; process re-engineering; strategic planning; telecommunications.

**Roger R. Stough**, University Professor of Public Policy and Associate Dean for Research; Ph.D., Geography and Environmental Engineering, Johns Hopkins University, 1978. Modeling and policy in regional economic development, transport, information technology and entrepreneurship.

**Jessica N.S. Terman**, Assistant Professor, Ph.D., Public Administration, Florida State University, 2012. Contracting-out/public procurement; state/local government administration; bureaucratic policymaking and behavior; rule making.

**Tojo J. Thatchenkery**, Professor of Organization Development and Director, Organization Development & Knowledge Management Program; Ph.D., Organizational Behavior, Case Western Reserve University, 1994. Enhancing innovation and entrepreneurship with appreciative intelligence; creating knowledge-sharing organizational culture; change management; organizational transformation; quiet leadership; diversity and Asian American glass ceiling.

**A. Trevor Thrall**, Associate Professor of International Security and Director, Biodefense Program; Ph.D., Political Science, Massachusetts Institute of Technology, 1996. International Security; U.S. national security policy; political communication; public opinion on foreign policy and war.

**Stefan Toepler**, Associate Professor; Ph.D., Business and Economics, Free University of Berlin, 1995. Nonprofit management; philanthropy; global civil society; cultural policy.

**Toni-Michelle C. Travis**, Associate Professor; Ph.D., Political Science, University of Chicago, 1983. Race and gender issues in political participation; public administration; urban politics.

**Jennifer N. Victor**, Assistant Professor; Ph.D., Political Science, Washington University in St. Louis, 2003.
Legislative politics; political networks; quantitative analysis.

**Ming Wan,** Professor; Ph.D., Political Science, Harvard University, 1993.  
International political economy; Chinese foreign policy, Sino-Japanese relations; Asian Pacific region.

**Anne L. Washington,** Assistant Professor of Public Policy; Ph.D., Information Systems and Technology Management, The George Washington University, 2011.  
American government and politics; Congress; information policy; eGovernment/Gov 2.0; human-computer interaction; information retrieval; knowledge management; legislative studies; qualitative methods; social theory; technology management; analytics; data science; transparency.

**Janine R. Wedel,** University Professor; Ph.D., Anthropology, University of California, Berkeley, 1985.  
Shadow elites, governance and privatization of policy; corruption and the state; foreign aid; social networks; eastern Europe; anthropology of public policy.

**Edmund J. Zolnik,** Associate Professor; Ph.D., Economic Geography, University of Connecticut, 2004.  
Safe/sustainable transportation; community/regional development; multilevel modeling.

[Back to Table of Contents]
Selected Affiliated Faculty

Kevin Avruch, Henry Hart Price Professor of Conflict Resolution, Professor of Anthropology and Dean, School for Conflict Analysis and Resolution, School for Conflict Analysis and Resolution; Ph.D., University of California, San Diego, 1978.

Gregory A. Guagnano, Associate Professor of Sociology; Department of Sociology and Anthropology; Ph.D., University of California, Davis, 1986.

Hugh Heclo, Robinson Professor; Ph.D., Political Science, Yale University, 1970.

John Paden, Robinson Professor of International Studies; Ph.D., Harvard University, 1968.

Steven Pearlstein, Robinson Professor; BA Trinity College, 1973.

Joseph A. Scimecca, Professor of Sociology; Department of Sociology and Anthropology; Ph.D., New York University, 1972.

Martin Jay Sherwin, University Professor of History; Department of History and Art History; Ph.D., University of California – Los Angeles, 1971.

Back to Table of Contents
Instructional, Research, and Administrative Faculty

(may serve on committees, but not as chair or primary member)

James N. Burroughs, Term Assistant Professor; JD College of William and Mary 1981.

Delton T. Daigle, Term Assistant Professor; Ph.D., Political Science, Ohio State University, 2010.


Daniel Druckman, Professor; Ph.D., Social Psychology, Northwestern University, 1966.

Sheldon M. Edner, Term Full Professor and Director of the Center for Federal Management Leadership; BA, Humboldt State University, 1969; MA, Humboldt State University, 1971; Ph.D., University of California, 1973.

James H. Finkelstein, Professor of Public Policy; BS, Miami University, 1974; MA, Miami University 1977, Ph.D., Ohio State University, 1980.

Allison M. Frendak-Blume, Term Assistant Professor of Public Policy and Director, Peace Operations Policy Program; Ph.D., Conflict Analysis and Resolution, George Mason University, 2004.

Salim J. Habayeb, Director of Health and Medical Policy Master’s of Science Program; SPCN Sciences 1966, University of Bordeaux; MPH, University of Michigan, 1978; MD, University of Bordeaux, 1973.

Michael V. Hayden, Distinguished Visiting Professor; M.A., Duquesne University, 1969.

Richard D. Kauzlarich, Deputy Director of the Terrorism, Transnational Crime and Corruption Center (TraCCC); BA, Valparaiso University, 1966; MA, Indiana University, 1967; MA, University of Michigan, 1976.

Todd M. La Porte, Term Associate Professor; Ph.D., Political Science, Yale University, 1989.

Christine Pommerening, Research Assistant Professor; Ph.D., George Mason University, 2004.
Charles Robb, Distinguished Professor of Law and Public Policy; J.D., University of Virginia, 1973.

Frank Shafroth, Research Professor and Director of the State and Local Government Leadership Center; BA, Stanford University, 1970; JD, Georgetown University, 1984.

Bonnie Stabile, Research Assistant Professor and Assistant Director, Center for the Study of International Medical Policies and Practices (CSIMPP); Ph.D., Public Policy, George Mason University, 2006.

Laura Walker, Term Assistant Professor; J.D., University of Toledo College of Law, 1977, and Ph.D., Public Policy, George Mason University, 2012.

Matthys van Schaik, Associate Dean for Academic Affairs, Ph.D., University of South Carolina, 1995.
APPENDIX VI: INTERNATIONAL STUDENT SERVICES

Visa Status
Each international student is responsible for having a current and valid visa. Failure to do so may have serious consequences, which include being forced to leave the country. Students on F-1 and J-1 visas must maintain their full-time status, demonstrate appropriate financial resources, and remain in good academic standing. All visa-related issues are handled through the Office of International Programs and Services.

Office of International Programs and Services (OIPS)
OIPS provides advice on immigration matters, employment applications, taxation, GMU academic policies, cultural adjustment, and other practical issues. The office conducts an international student orientation each semester, organizes outings, arranges bi-weekly workshops on topics of interest, and co-sponsors International Week each spring.

To learn more, visit the Office of International Programs and Services located in Student Union Building I Addition, Fairfax Campus, Suite 4300, (703) 993-2970, http://oips.gmu.edu/. OIPS also holds office hours in Arlington. Please check the OIPS website for more information.

Health insurance is required for all F-1 and J-1 visa holders. Health insurance fees are deducted from all payments received by the University before funds are applied to tuition or other charges. Failure to make this payment may result in cancellation of classes. See the Health Insurance section for further information.

Back to Table of Contents
APPENDIX VII: UNIVERSITY SERVICES

Electronic Communication and GMU E-mail Accounts
Students are required to activate and access the e-mail account provided by the University. The University will communicate only via Mason e-mail accounts for registration, student accounts/billing, and financial aid. Students are responsible for the content of any communication sent to them by e-mail. Students may choose to have GMU e-mails forwarded directly to another account. Account setup instructions can be found at the MasonLive website:

http://masonlive.gmu.edu

Please note that the default setting for mail forwarding retains copies of e-mail on the GMU server. To avoid errors due to mailboxes being over quota, students should either regularly delete e-mail from their GMU account or, when setting up mail forwarding, students can choose to not save a copy of e-mails on the server. If students have any difficulties with this process, they should contact ITU at support@gmu.edu or by phone at (703) 993-8870.

Health Insurance
Students may purchase health insurance through Aetna Student Health. F-1 and J-1 visa students are automatically enrolled in the University’s plan. The deadline for an annual policy or for fall semester enrollment is September 15, 2014. George Mason University’s policy number is 724536. For additional information contact Student Health Services at (703) 993-2831 or visit the Student Health Services website at: http://shs.gmu.edu/ or the Aetna Student Health website at:
http://www.aetnastudenthealth.com/schools/georgemason

SPGIA Career Services
SPGIA offers comprehensive career service assistance for all current SPGIA graduate students. Staff is available to help students review and revise resumes and cover letters, explore career goals, and identify employment opportunities. Through one-on-one meetings and regular workshops, Career Services provides students with the skills needed for a successful career search. For more information on career services, please visit:

http://spgia.gmu.edu/careerservices

Career Services maintains an online job and internship database, SPGIA CareersNow, which provides up-to-date listings of current positions and
career events. Students who register for SPGIA CareersNow can review job and internship positions, as well as connect with employers actively recruiting. Register at:

https://spgia-gmu-csm.symplicity.com/students/

In addition to SPGIA CareersNow, students may also wish to use GMU’s general job and internship database, HireMason http://careers.gmu.edu/, or to take advantage of SPGIA’s LinkedIn group to maintain contact and network with faculty, fellow students and alumni.

**Office of Disability Services**
As part of GMU’s continuing commitment to uphold the letter and spirit of the laws that ensure equal treatment of people with disabilities, the university established and maintains the Office of Disability Services (ODS). The mission of the ODS at GMU is to facilitate equal access for students with disabilities to university programs, events, and services. They do this by collaborating with students, faculty, staff, and community members to create diverse learning environments that are usable, equitable, inclusive and sustainable. Students who believe they may be eligible for disability-related services should call ODS at (703) 993-2474 or visit the office on the Fairfax Campus in the Student Union Building (SUB) I, Room 2500, to find out what is needed to establish a file and receive services. Please see the following website for more information:

http://ods.gmu.edu/

Back to Table of Contents
FORMS

Education Plan Form

BIOD 793 Directed Readings and Research Contract

Reduction of Credit Form

Dissertation Committee Form

These and other Forms can be found here

Back to Table of Contents
George Mason University

PhD in Biodefense

School of Policy, Government and International Affairs

Education Plan Form – Fall 2014

This form must be completed and signed by your advisor during your first semester. Give the completed form to the Program Coordinator. Be sure to keep a copy for your records.

Student Name ________________________ GMU ID# ________________

Date Admitted ________________ Anticipated Graduation ________________

Core Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Semester/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOD 604</td>
<td>Threat Analysis I: Bacterial &amp; Toxin Agents</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOD 605</td>
<td>Threat Analysis II: Viral Agents</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOD 609</td>
<td>Biodefense Strategy and Policy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PUAD 637</td>
<td>Managing Homeland Security</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GOVT 500</td>
<td>Research Methods</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GOVT 540</td>
<td>International Politics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Govt 712 or 717 or PUAD 646</td>
<td>Additional advanced research course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

International Security

[6 to 9 hours of electives]

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Sem/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOVT 744 (req)</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GOVT 745 (req)</td>
<td>International Security</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
## Terrorism and Homeland Security [3 to 6 hours of electives]

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Sem/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOD 722 (req)</td>
<td>Examining Terrorist Groups</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOD 725 (req)</td>
<td>Terrorism and WMDs</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Technology and WMD [3 to 6 hours of electives]

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Sem/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOD 706 (req)</td>
<td>Nuclear, Biological, and Chemical Weapons Policy and Security</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOD 760 (req)</td>
<td>National Security Technology &amp; Policy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Courses Outside of the Specialization [6 credit hours]

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Sem/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Electives (9 to 21 credits)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Sem/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Dissertation Credits – Min 12, Max 24 total combined 998 and 999

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits/Sem</th>
<th>Credits/Sem</th>
<th>Credits/Sem</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOD 998</td>
<td>Dissertation Proposal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOD 999</td>
<td>Dissertation Research</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Approved Transfer Credits (12 Maximum) and/or Reduction of Credit (30 Maximum)

<table>
<thead>
<tr>
<th>Institution</th>
<th>Course Number and Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL CREDIT HOURS: _____________

### Anticipated Completion Dates

Qualifying Exam:__________________________________________

Dissertation Proposal (BIOD 998):__________________________

Dissertation Research (BIOD 999):__________________________

Advisor_________________________________________________

Signature __________________________________________________________________________ Date 

Student_______________________________________________________

Signature __________________________________________________________________________ Date
George Mason University

School of Policy, Government and International Affairs

GOVT 796 Directed Reading and Research (1-3 credits)

Date __________________________

Student Name_______________________ G# _______________________

Subject of Readings ________________________________

______________________________________________________________________________

Brief Description (Include requirements, readings, papers etc.)
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Projected Completion Date _________________

Student Signature __________________________

Advisor Signature ___________________________

Original, signed form must be submitted to SPGIA Ph.D. Student Services. Please place in the mailbox of Peg Koback located in Robinson A204. The student should keep a copy for his/her records.
George Mason University
School of Policy, Government and International Affairs

Dissertation Committee

All dissertation committees must consist of at least three members of the graduate faculty, at least two of whom must be from the student’s academic unit or program faculty. The committee consists of a dissertation chair, a member of the graduate faculty from the department or program of the student’s field of study and at least two other members of the graduate faculty. Only a member of the graduate faculty with a full-time appointment at George Mason University may serve as dissertation chair.

Student’s Name: _______________________________ Date: ___________

Tentative Dissertation Title: _______________________________

The following professors have agreed to serve on my dissertation committee:

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Approved By:

Assistant Dean
Program Management______________ ___________________ _________

Ph.D. Program Director ______________ ___________________ _________

SPGIA Dean ______________________ ___________________ _________

Please return this form to Peg Koback, Robinson A, Room 204, MS 3F4

Back to Table of Contents