PhD in Biodefense

Program Description and Admissions Information

Schar School of Policy and Government
George Mason University
Graduate Admissions
3351 Fairfax Drive, MS 3B1
Arlington, VA  22201

Telephone: 703-993-8099
Email: schar@gmu.edu
Web: schar.gmu.edu
This guide incorporates most of the requirements and rules pertaining to the Biodefense PhD Program in the Schar School of Policy and Government. In addition, the University Catalog and associated requirements and rules, along with other pertinent University policies apply to, and in the case of inconsistency, take precedence over this guide.

Revised: March 27, 2017
The Schar School of Policy and Government (Schar School) is at the heart of George Mason University’s commitment to government and policy studies and research. Located in both Fairfax and Arlington, Virginia, the Schar School takes advantage of its location in the National Capital Region, offering students and faculty unique opportunities to study federal executive and legislative governance and policy-making, as well as international organizations and government agencies.

The Schar School of Policy and Government conducts policy research in a number of fields, including terrorism and international security; medical and public health preparedness; governance and public management; regional economic development; transportation policy; politics and Islam; science and technology policy; economic policy; and Russian, Central Asian, and East Asian politics.

The school is home to three doctoral programs – Biodefense, Political Science, and Public Policy. The structure of the school and its dedication to interdisciplinary education and research allow it to reach across Mason to bring together the knowledge and skills needed to address a wide variety of policy concerns. While most members of the core faculty holds full-time tenured positions, other members of the Schar School faculty are from other university departments and schools. In addition, faculty and students in the Schar School are published widely in primary academic and professional journals on topics including American politics and policy, comparative politics, legislative and executive branch operations, federalism, weapons of mass destruction, international security, environmental policy, Latin American politics, and foreign affairs. In addition to the academic faculty and graduate students, the Schar School hosts a substantial number of senior fellows, visiting faculty, post-doctoral associates, and other researchers from around the world, all of whom make essential contributions to research, teaching, and outreach activities.

The Schar School’s faculty offers both depth and breadth in the scholarship of the primary fields of the Biodefense program: international security; terrorism and homeland security; and technology and weapons of mass destruction. In addition to our full-time faculty, the Biodefense program draws on the expertise of Washington, DC area professionals as part-time instructors, from organizations such as the Federation of American Scientists, the US Department of Agriculture, DynPort Vaccine Company, the Office of the Director of National Intelligence, and the American Type Culture Collection.

**DOCTORAL PROGRAM OVERVIEW**

The biodefense graduate program at Mason prepares students to assess and reduce biological threats posed by weapons of mass destruction, terrorism, pandemics, and emerging infectious diseases. The doctoral program prepares students to serve as scholars and professionals in the fields of biodefense and biosecurity. The program integrates knowledge of natural and man-made biological threats with the skills to develop and analyze policies and strategies for enhancing biosecurity. Other areas of biodefense including nonproliferation, intelligence and threat assessment, and medical and public health preparedness are integral parts of the program.

Because of the breadth of the program, students with backgrounds in science and other areas, such as international affairs, political science, law, public policy, and conflict resolution, are encouraged to apply.

Students in the program study both full-time and part-time, and may change their status at any time. A full-time course load is three classes (nine credits). We recommend that a student not take more than 4 classes (12 credits) per semester. If a student holds a full-time assistantship (20 hours a week), two classes (six credits) is considered full-time. Graduate students who are enrolled in dissertation credits (either 998 or 999) are considered full-time, if they are enrolled in at least 6 credits per semester, regardless of whether they hold an assistantship.
The degree requires 72 credits of course work divided among core courses, a field of specialization, supporting courses that can be outside the department, and dissertation guidance.

The course work will be allocated as follows:

- **Six required courses (18 credits):** BIOD 604, 605, 609, 620; GOVT 500, 540
- **One additional advanced research course (3 credits):** Must be approved by the program director. May be focused on qualitative or quantitative research.
- **Two required field seminars and 2 elective courses (12 credits)** in one of three fields of specialization (International Security; Terrorism & Homeland Security; Technology & WMD)
- **Two elective courses (6 credits):** Students should select courses from fields other than their chosen field of specialization.
- **Electives (9-21 credits):** Students complete the remaining 72 credits through additional elective courses chosen in consultation with an advisor.
- **Dissertation (12-24 credits):** Once enrolled in 998, students must maintain continuous registration in 998 or 999 every semester (excluding summers) until the dissertation is submitted to and accepted by the University Libraries. 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 6 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.

*Official program requirements are published in the annual PhD Student/Faculty Handbook issued to new students during orientation. The current issue is located on the program website:

[https://schar.gmu.edu/current-students/phd-student-services/phd-handbook-forms](https://schar.gmu.edu/current-students/phd-student-services/phd-handbook-forms)

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**George Mason University Libraries**

The University Libraries serve as both a repository of and digital portal to the wider universe of knowledge. The Libraries foster innovation, originality, and imagination by qualitatively managing access to scholarship and information, providing expert consultation in the research process, actively teaching the effective and critical use of information, and disseminating research and scholarship through publishing endeavors. Digital resources are accessible by students both on- and off-campus. Among many other resources, Fenwick Library in Fairfax is home to Mason’s print federal government documents collection; and Arlington Campus Library is designated as a European Union Document Depository, providing in-house access to non-circulating European Union documents for faculty, students and members of the public. As part of the Washington Research Library Consortium (WRLC), Mason students have use of major academic libraries in the Washington Metropolitan area, including The George Washington University, American University and Georgetown University. More information is available at [http://library.gmu.edu](http://library.gmu.edu)
PHD IN BIODEFENSE  
Schar School of Policy and Government  
Education Plan for students admitted Fall 2016

Student name: _______________________________  G#: _________________________

Advisor: _____________________________  Anticipated Graduation Date: _________________________

Core Coursework – 21 credits

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<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Credits</th>
<th>Semester</th>
<th>Grade</th>
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<tbody>
<tr>
<td>BIOD 604</td>
<td>Emerging Infectious Diseases I: Bacteria and Toxins</td>
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<tr>
<td></td>
<td>(formerly Intro to Biodefense I: Bacterial &amp; Toxin Agents)</td>
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<tr>
<td>BIOD 605</td>
<td>Emerging Infectious Diseases I: Viral Agents</td>
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<td></td>
<td>(formerly Intro to Biodefense II: Viral Agents)</td>
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<tr>
<td>BIOD 609</td>
<td>Biodefense Strategy</td>
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<td>(formerly Biodefense Strategy &amp; Policy)</td>
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<tr>
<td>PUAD 637 or BIOD 620</td>
<td>Managing Homeland Security/ Global Health Security Pol</td>
<td>3</td>
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<tr>
<td>GOVT 500</td>
<td>The Scientific Method &amp; Research Design</td>
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<td>GOVT 540</td>
<td>International Relations</td>
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<tr>
<td>GOVT 712 or 717, or PUAD 646</td>
<td>Additional advanced research course</td>
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Field of Specialization – 12 credits

International Security: 2 required field courses + 6 credits of electives

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<th>Course #</th>
<th>Course Title</th>
<th>Credits</th>
<th>Semester</th>
<th>Grade</th>
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<tbody>
<tr>
<td>GOVT 744 (required)</td>
<td>Foundations of Security Studies</td>
<td>3</td>
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<tr>
<td>GOVT 745 (required)</td>
<td>International Security</td>
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<td>Elective __________</td>
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<td>3</td>
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<tr>
<td>Elective __________</td>
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Terrorism and Homeland Security: 2 required field courses + 6 credits of electives

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<th>Course Title</th>
<th>Credits</th>
<th>Semester</th>
<th>Grade</th>
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<tbody>
<tr>
<td>BIOD 722 (required)</td>
<td>Examining Terrorist Groups</td>
<td>3</td>
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<tr>
<td>BIOD 725 (required)</td>
<td>Terrorism and WMDs</td>
<td>3</td>
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<td>Elective __________</td>
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<td>Elective __________</td>
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Technology and WMD: 2 required field courses + 6 credits of electives

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<th>Course Title</th>
<th>Credits</th>
<th>Semester</th>
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<tbody>
<tr>
<td>BIOD 706 (required)</td>
<td>Nuclear, Biological, &amp; Chemical Weapons Policy &amp; Security</td>
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<tr>
<td>BIOD 760 (required)</td>
<td>National Security Technology and Policy</td>
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<td>Elective __________</td>
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Courses outside of the specialization – 6 credit hours

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<th>Course #</th>
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Electives – 9 - 21 credits

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<th>Credits</th>
<th>Semester</th>
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Dissertation Credits

998 Proposal: min 3, max 6. 999 Dissertation: min 6, max 18. 998+999 combined: min 12, max 24

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<th>Course #</th>
<th>Course Title</th>
<th>Credits/Semester</th>
<th>Credits/Semester</th>
<th>Credits/Semester</th>
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</thead>
<tbody>
<tr>
<td>BIOD 998</td>
<td>Dissertation proposal</td>
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<tr>
<td>BIOD 999</td>
<td>Dissertation Research</td>
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Approved Transfer Credits – 12 maximum And/Or Reduction of Credit – 30 maximum

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<tr>
<th>Institution</th>
<th>Course Number and Title</th>
<th>Credit Hours</th>
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Total Credit Hours: ________________

Anticipated Completion Dates

Qualifying Exam: ________________________________

Dissertation Proposal (BIOD 998): ________________________________

Dissertation Research (BIOD 999): ________________________________

Advisor Signature: ________________________________ Date: ________________

Student Signature: ________________________________ Date: ________________
The most updated Schedule of Courses is available through the GMU website at: https://patriotweb.gmu.edu/pls/prod/bwckschd.p_disp_dyn_sched
You may review prior course syllabi through the program website: http://schar.gmu.edu/current-students/course-syllabi-and-schedule/
Biodefense students may be interested in relevant courses in ITRN, GOVT, PUAD, and PUBP. Please see the Schar School website for more information.

**BIODEFENSE COURSE DESCRIPTIONS***

**BIOD 604 Emerging Infectious Diseases I: Bacteria and Toxins:** Covers pathology, metabolism, and threat of bacterial agents that can be used as biological weapons. (3 credits)

**BIOD 605 Emerging Infectious Diseases II: Viral Agents:** Covers pathology, metabolism, and threat of viral agents that can be used as biological weapons. (3 credits)

**BIOD 609 Biodefense Strategy:** 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. (3 credits)

**BIOD 620 Health and Security:** 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 links 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. (3 credits)

**BIOD 706 Nuclear, Biological, and Chemical Weapons Policy and Security:** Explores the causes, conduct, and consequences of the proliferation of nuclear, biological, and chemical weapons. Covers the historical, technological, normative, and strategic factors that have promoted and restrained the spread of these weapons. Addresses the motives for states to develop these weapons and the debate over the security implications of nuclear, biological, and chemical weapon proliferation. (3 credits)

**BIOD 709 Nonproliferation and Arms Control:** Examines the array of national and international measures used to slow, halt, and reverse the spread of nuclear, biological, chemical, and missile weapons. Explores the theory and practice of proliferation to provide insights into the supply and demand aspects of proliferation. (3 credits)

**BIOD 722 Examining Terrorist Groups:** Introduction to terrorism including the history and evolution of terrorism, case studies of key terrorist groups, the current nature of the terrorist threat and counterterrorism strategies. (3 credits)

**BIOD 725 Terrorism and Weapons of Mass Destruction:** 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. (3 credits)

**BIOD 726 Food Security:** Analyzes the threat of agricultural terrorism, including assessments of the chemical and biological agents used to disrupt agriculture and livestock, and the national and global economic and social impacts of these disruptions. Also examines strategies for enhancing the security of the food production and supply systems. (3 credits)

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

**BIOD 760 National Security Technology and Policy:** 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, nonlethal weapons, nanotechnology, bioengineering, energy security, and pandemic influenza. (3 credits)

**BIOD 766 Development of Vaccines and Therapeutics:** Analyzes the process of developing new medical countermeasures against biological weapons and emerging infectious diseases such as SARS and pandemic influenza. Special attention is paid to the scientific, technical, political, regulatory, and economic obstacles to developing new vaccines and therapeutics. Examines the causes and potential solutions of public and private sector failures. (3 credits)

**BIOD 998 Doctoral Dissertation Proposal:** Work on research proposal that forms basis for doctoral dissertation (3-6 credits)

**BIOD 999 Doctoral Dissertation Research:** Research on approved dissertation topic under direction of dissertation committee. (1-12 credits)

**GOVT 500 The Scientific Method and Research Design:** Grounds students in the principles of the scientific method as the framework for investigating all research questions in political science, whether qualitative or quantitative in character (or both). Focus is on sound and rigorous research design. (3 credits)

**GOVT 540 International Relations:** 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. (3 credits)

**GOVT 712 Problem Solving and Data Analysis II:** Advanced techniques and skills for solving policy-related problems or analyzing political data. Focuses on data gathering and analysis, use of statistical software, and multivariate analysis. (3 credits)

**GOVT 717 Qualitative Methods:** Focuses on scientific design of qualitative research questions and use of specific qualitative methods in scientific analysis. Covers when and how to use qualitative research methods to answer empirical questions in political science; primary data collection methods (interviews, observations, document review); the appropriateness of different research approaches; procedural and ethical concerns that may arise in use of qualitative methods. (3 credits)

**GOVT 744 Foundations of Security Studies:** Introduces students to a selection of the original sources of the most important ideas that form the basis of security studies as a subfield of political science. (3 credits)

**GOVT 745 International Security:** Examines interplay of international politics and international security. Discusses theoretical perspectives and analytical tools in academic field of international security, and applies theories and tools to nuclear, biological, and chemical weapons, strategy and defense, and arms control. How domestic issues affect defense policies, terrorism, changing nature of international conflict, and human security will be examined. (3 credits)

**PUAD 646 Program Evaluation:** Practical exploration of assessment techniques used in studying results of public programs and policies, including evaluation of implementation strategies and impacts. (3 credits)

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[https://schar.gmu.edu/current-students/phd-student-services/phd-handbook-forms](https://schar.gmu.edu/current-students/phd-student-services/phd-handbook-forms)
BIODEFENSE FACULTY BIOGRAPHIES

**Gregory D. Koblentz** is an Associate Professor in the Schar School of Policy and Government and Program Director of the Biodefense Graduate Program. 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 PhD in Political Science from the Security Studies Program at the Massachusetts Institute of Technology.

**A. Trevor Thrall** is an Associate Professor in the Schar School of Policy and Government. 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 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.

**Daniel Druckman** is a Professor in the Schar School of Policy and Government. 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 PhD in Social Psychology from Northwestern University.

**Sonia Ben Ouagrham-Gormley** is an Assistant Professor in the Schar School of Policy and Government. Previously, she was a Senior Project Manager for the Center for Nonproliferation Studies and Editor-in-Chief of the NIS Export Control Observer. In 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 PhD in Economics of Development at the Advanced School of Social Sciences in Paris, France.

**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 centrifugal and centripetal 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** received his veterinary degree in 1968 and his PhD 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, DC 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 where his main commitment was to the Defense Threat Reduction Agency’s Global Bio-engagement Program. He is currently Bio-Security Deputy Program Director, Global Security Directorate, Office of Strategic Outcomes, Lawrence Livermore National Laboratory and serves on the senior management team of the Defense Threat Reduction Agency’s Chemical and Biological Defense Directorate.

**Michael Dennis** is an adjunct instructor. He 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 President of DynPort Vaccine Company LLC, a CSC company. DynPort 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 PhD 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.

**Kurt Langenbach** an adjunct professor and teaches courses that cover pathology, metabolism and threat of viral, bacterial and toxin agents that can be utilized as biological weapons. Outside of Mason, Dr. Langenbach serves as a Scientist and Manager of several core service programs at ATCC (American Type Culture Collection) including the Assay Development Core, Genomics Core, Immunology Core, Toxins Core and Protein Core. Prior to taking over the leadership of these groups he served as a Senior Assay Development Scientist primarily serving the Biodefense and Emerging Infectious (BEI) Disease Research Resource Repository (BEI) contract that is being managed by ATCC. In this role he was responsible for coordinating and conducting a broad range of assay and product development efforts in the molecular, microbiological, immunological and cellular arenas in support of biodefense and emerging infectious disease research.

**Linda Millis** is the Vice President for Industry Programs at AFCEA International where she manages all corporate member activities, and an adjunct professor in the Schar School of Policy and Government. Most recently, Ms. Millis was the Director of Private Sector Partnerships with the Office of the Director of National Intelligence. A nearly 30-year veteran of the intelligence community, Ms. Millis has held senior positions at the National Security Agency (NSA), Central Intelligence Agency (CIA), the Intelligence Community Management Staff, as well as at the White House, where she served on the staff of the President’s Foreign Intelligence Advisory Board and the congressionally-mandated Aspin Brown Commission. As the Vice President for Policy at Business Executives for National Security (BENS), Ms. Millis created an innovative homeland security partnership between business and government in New Jersey which was embraced by the White House as a model for the rest of the nation. Before joining the Markle Foundation as the Director of the National Security Task Force, Ms. Millis served as a Principal at Pittiglio Rabin Todd & McGrath, a management consulting firm for which she identified and implemented best business practices for intelligence and military clients. Ms. Millis is the recipient of many government awards including the National Intelligence Medal of Achievement.
PHD IN BIODEFENSE
ADMISSIONS AND APPLICATION INFORMATION

Doctoral applicants are strongly encouraged to apply for admission in the fall semester, for both full-time and part-time study. No spring admission cycle is available for our PhD programs. Please note that Graduate Research Assistantships are only awarded to students who are attending school full-time.

The GMU graduate application process requires the applicant to submit a complete set of documents with the application. All application credentials must be received before the application will be reviewed.

1. Graduate application and the online $75 application fee. There are no fee waivers. Please note that when completing the online application, you will be required to submit this fee by credit card payment. The graduate application can be completed at: http://admissions.gmu.edu/ApplyNow.

2. A statement of professional goals (usually two pages). The goals statement should be 750 to 1,000 words. Please print your name and birth date on the goals statement if it is sent in separately from the application so that we will be able to link this to your online application. Please describe your personal qualities and development and how they have influenced your career choice; discuss your reasons for considering this particular program in relation to your academic background, professional work experience, and career goals; detail which fields in which you expect to conduct research, and describe how these interests have been influenced by your prior education, research, or work experience. Also discuss why you are considering a career in an academic or research setting, and include any other information relevant for evaluating your motivation to study and conduct research at the doctoral level.

3. A current resume or vitae.

4. Submission of transcripts.
   Domestic Applicants – upload unofficial copies of transcripts from ALL U.S. accredited institutions attended.
   International Applicants - Students presenting international credentials must upload unofficial transcripts, degree certificates/diplomas, AND certified translations of the documents in English (if applicable). More information can be found on the International Applicant Requirements page: https://schar.gmu.edu/prospective-students/admissions/international-applicant-requirements.

5. Graduate Record Examination (GRE) official score are required. GRE scores must have been earned within the past 5 years. There is no waiver for this requirement.

6. Three letters of recommendation from professional or academic contacts. It is strongly encouraged that you request academic letters of recommendation from past professors. If this is not possible, then letters from supervisors or from individuals that can assess your intellectual aptitude for a graduate program will be sufficient.

7. A writing sample such as a full length research paper. The writing sample may be in the form of a sole-authored academic paper, published article, professional proposal, evaluation, or report. The ideal writing sample demonstrates both your writing and analytical abilities. It should have a clearly articulated thesis statement and make an argument that analyzes the topic, rather than just describing it. There is no required length for the writing sample.

8. English Language Proficiency exam scores (required for international applicants) – TOEFL: minimum score of 600 (paper-based), 250 (computer-based), or 100 (internet-based.) **Please note that students submitting internet-based exam results must earn a minimum score of 23 on each individual exam section. IELTS: minimum total score of 6.5. An official score report is required. In addition, students may be required to be tested by the GMU English Language Institute.


Application Deadlines: Fall (August matriculation) Deadline: December 1 (November 1 for International Applicants)

Please upload application materials (including all unofficial transcripts, writing samples, resume, and goals statement) to your Self Service Center. Hard-copy documents can be mailed to:

GMU-Office of Graduate Admissions
4400 University Drive, MS 4C8
Fairfax, VA 22030
GEORGE MASON UNIVERSITY
FINANCIAL AID AND COST INFORMATION

Graduate Tuition and Fees for 2016-2017 (subject to change):

- **In-state** graduate tuition and fees: $763.50/per credit hour
- **Out-of-state** graduate tuition and fees: $1,441.75/per credit hour

George Mason University Federal Title IV School Code: 003749

To determine if you are eligible for financial aid and to establish eligibility for alternative financial aid resources, you must apply each year. For more information visit the Mason Financial Aid website: [http://financialaid.gmu.edu](http://financialaid.gmu.edu)

1. **Complete the Free Application for Federal Student Aid (FAFSA) or Renewal FAFSA Application as soon as possible after January 1** for which you are applying to receive financial aid. You do not have to be admitted to a degree program to complete the FAFSA application.

You may also use the electronic FAFSA Express software to submit your application electronically. Applications received by the processing center after March 1st for the next academic year are considered late and cannot be given priority consideration. For example, financial aid applications must be received by the federal processor **by March 1** to be considered on-time.

You can complete the FAFSA using ESTIMATED income and tax figures. If necessary, do this rather than missing the priority filing date. Be prepared to provide complete copies of your Federal tax returns, tax schedules, and W-2 forms if requested.

2. **Approximately 4-6 weeks after you mail the application you will receive a Student Aid Report (SAR).** You must review it, and if it is not correct, make appropriate corrections, sign it and send Part 2 back to the federal processor.

3. **If additional information is required to process your file,** you will receive a Missing Information Letter from the Office of Student Financial Aid. You should respond to this request as quickly as possible. Failure to respond in a timely manner can drastically affect the amount of aid that you are offered.

4. **After all information is received by the Financial Aid Office you will receive an award eligibility notification by email.** This will include the types and amounts of aid you are offered.