



BIOD-609-001: Biodefense Strategy

Fall 2023

Schar School of Policy and Government
George Mason University

Time: Wednesdays, 4:30-7:10 PM ET

Location: Van Metre Hall 477 (Arlington, VA)

Professor Gregory D. Koblentz

Office: Van Metre Hall 678

Tel: (703) 993-1266

Email: gkoblent@gmu.edu

Office Hours: Wednesdays, 3:00-4:00 PM ET or by appointment. You can also use the Virtual Office Hours forum on Blackboard to submit questions about the course.

Course Description:

The purpose of this course is to introduce students from various backgrounds to the best social science literature on issues related to biodefense. These books are too new to be considered classics, but they represent the most important scholarly works in the field of biodefense. Our goal is to confront each of these works as an extended argument and then to determine their value to the field and to our understanding of biodefense issues today. Students who plan to write dissertations in biodefense or security studies will find this approach particularly useful.

Course Objectives:

1. Familiarity with the intellectual foundations of biodefense and global health security as subfields of security studies and an appreciation of how recent research builds on this foundation
2. Knowledge of the key theories and concepts in the fields of biodefense and global health security and the ability to identify their relevance to current policy debates
3. Ability to analyze, critique, and apply theories to understand historical and contemporary cases
4. Ability to write a literature review that captures both chronological and thematic dimensions of the research in question

Format and Procedures

This course is run as a seminar which means you will be expected to participate actively. Attendance at all classes is required. Participation will be evaluated in terms of contribution to class discussion. Class participation is worth 25% of your grade.

I expect you to be prepared to discuss the readings and actively participate in the discussion. That means developing your own critical appraisal of the assigned reading(s) and being prepared to question the assumptions, analysis, and conclusions of the authors, the professor, and your classmates. To that end, the day before class, you should upload to Blackboard a list of the two or three most important, interesting, and/or surprising things you learned from the reading(s), things you disagreed with, or the most important questions that the reading(s) did not answer (at least to your satisfaction). These weekly postings are worth 15% of your grade.

Students are not expected to have an extensive background in biodefense or global health security. However, students are expected to share their thoughts and insights with the class. Those students with direct professional and related knowledge of these subjects are strongly encouraged to share their perspective during the discussion.

Real and Virtual Office Hours

I will be holding regular office hours before class each week. If you are unable to meet during this time, email me to set up an appointment at another time or to schedule a phone call or Zoom call. You are also encouraged to post questions about the readings or lectures or other topics to the Virtual Office Hours section of the Discussion Board. Do not email me questions related to the syllabus, readings, or assignments; instead post them to the Virtual Office Hours forum so the entire class can benefit from our exchange. For communications that you want to be confidential or are directly related to an assignment you are working on that would not be relevant to the rest of the class, please see me during office hours or email me with your question. I will respond via email or set up a time to talk on the phone or via Zoom. I will try to respond to all emails within 2 business days.

Writing Assignments

There are two written assignments for this course: a literature review proposal and a literature review. All writing assignments should be uploaded to Blackboard as a Word file. The file should be labeled as Your Last Name_Your First Name_Name of Assignment. Writing assignments should be double-spaced with 12-point font, 1-inch margins, numbered pages, and use the [Chicago Manual of Style](#) for footnotes.

Several resources for conducting research and writing literature reviews have been posted in the Research Resources folder on Blackboard to assist you with this assignment. I strongly encourage you to review these resources while developing your proposal and again before you write your literature review.

Literature Review Proposal

A literature review proposal is due by 4:30 PM ET (before class starts) on **October 4, 2023**. The proposal should be no longer than 1,000 words plus a 1/2 to 1-page bibliography. Your research proposal should identify a question or puzzle in the fields of biodefense or global health security that is suitable for an independent research project (such as the capstone paper required for BIOD 790) or a doctoral dissertation.

The literature review proposal should clearly identify the topic, question, or puzzle that your literature review will address. A good proposal will also consider why this question is important from both a scholarly and policy perspective (in other words, why you have chosen to study it). You should select a question or puzzle that allows you to research and write about an issue that matters to you. For this assignment, the more specific and narrowly tailored your topic is, the better. Please see the "[Aims and Scope](#)" for the journal *Health Security* and browse the [journal](#) for the broad parameters that your selected topic should fall into. In selecting your topic, you are advised to consult the course readings (even if we haven't had the relevant class yet) and the suggested readings (posted on Blackboard). When selecting a question to be addressed by your literature review, start with the questions most central to this course, the questions that led you to enroll in the course, and questions that emerge from your observations and experiences in the fields of biodefense and global health security. Keep your topic narrow enough that you can address it given the timeline and wordcount for the literature review assignment. A narrowly defined topic that allows you to do a deep-dive on a specific topic will result in a stronger paper than one that is broad but superficial.

You are required to make an appointment with Professor Koblentz (via phone, Zoom, or email) prior to submitting the proposal to discuss your proposed research topic. The literature review proposal is worth 10% of your grade.

Literature Review Paper

The final assignment is a literature review that is due by 11:59 PM ET on **December 6, 2023**. The literature review should be approximately 12-16 pages long (3,000-4,000 words). The literature review will compare, contrast, critique, and synthesize the existing literature related to the topic you are studying. The purpose of the literature review is to critically analyze the existing research (be it academic articles and books, think tank reports, and/or government documents) that address the question in your research proposal. A literature review is not a compilation of book reviews or descriptions of journal articles. Instead, it organizes the existing literature thematically or methodologically and explains where and why there are areas of agreement or disagreement regarding the topic. Ultimately, the literature review should identify a theoretical, empirical, or methodological gap in the existing literature. Your literature review should conclude with a brief proposal for how you would conduct original research or analysis to fill that gap. This assignment is designed to provide you with a useful foundation for your future BIOD 790 Capstone project or doctoral dissertation. Several resources for conducting research on biodefense and global health security and how to write a literature review have been placed on Blackboard to assist you with this assignment. The literature review is worth 50% of your grade.

Grading

Your final grade will be calculated as follows:

Class Participation	25%
Literature Review Proposal	10%
Literature Review	50%
Weekly Posting	15%

The deadlines for all written assignments are strict and extensions will not be permitted in the absence of a genuine emergency or documented illness. A late assignment will be penalized a full letter grade (for example, from A to B) for every 24-hour period that it is late.

Extra Credit

You will have the opportunity to earn extra credit by participating in events related to biodefense or global health security and submitting a short paper about the event. Eligible events include those sponsored by universities, think tanks, government agencies, or international organizations, and Congressional hearings (<http://www.capitolhearings.org>). The [Pandora Report](#) is also a good source of relevant events.

The extra credit paper should be at least 500 words long (approximately 2 double-spaced pages) and provide a summary of the speaker(s) presentation as well as your analysis of the presentation using the concepts and cases you are learning in this class. The paper should include a title page with the following information: title, date, and sponsor(s) of the event, your full name, G#, and word count. The paper should be uploaded to Blackboard no later than 1 week after the date of the event. Up to three such extra credit papers may be submitted during the semester. No extra credit papers will be accepted after the last day of class.

Required Books:

All of these books are available via the GMU bookstore, online booksellers, and as e-books through George Mason University Library. You should bring the assigned reading to class. All articles will be available on Blackboard.

Jeanne Guillemin, *Biological Weapons: From the Invention of State-Sponsored Programs to Contemporary Bioterrorism* (New York: Columbia University Press, 2006). [E-book](#)

Andrew Price-Smith, *Contagion and Chaos: Disease, Ecology, and National Security in the Era of Globalization* (Cambridge: MIT Press, 2008). [E-book](#)

Stefan Elbe, *Virus Alert: Security, Governmentality, and the AIDS Pandemic* (New York: Columbia University Press, 2009). [E-book](#)

Gregory D. Koblentz, *Living Weapons: Biological Warfare and International Security* (Ithaca: Cornell University Press, 2009). [E-book](#)

Jonathan B. Tucker, ed., *Innovation, Dual Use, and Security: Managing the Risks of Emerging Biological and Chemical Technologies* (Cambridge: MIT Press, 2012). [E-book](#)

Kathleen M. Vogel, *Phantom Menace or Looming Danger? A New Framework for Assessing Bioweapons Threats* (Baltimore: Johns Hopkins Press, 2012). [E-book](#)

Kendall Hoyt, *Long Shot: Vaccines in National Defense* (Cambridge: Harvard University Press, 2012). [E-book](#)

Frank L. Smith, III, *American Biodefense: How Dangerous Ideas about Biological Weapons Shape National Security* (Ithaca: Cornell University Press, 2014). [E-book](#)

Sara E. Davies, Adam Kamradt-Scott, and Simon Rushton, *Disease Diplomacy: International Norms and Global Health Security* (Baltimore: Johns Hopkins University Press, 2015). [E-book](#)

Sonia Ben Ouagrham-Gormley, *Barriers to Bioweapons: The Challenge of Expertise and Organization for Weapons Development* (Ithaca: Cornell University Press, 2014). [E-book](#)

A Note on Workload

The reading load for this course is heavy. I appreciate that many students work demanding jobs and that it may be difficult to complete all the reading for each week. The goal for the weekly workload for the course is 8 to 10 hours, with about 75% of your time devoted to reading and 25% of your time devoted to writing. That means you should plan to be reading somewhere between 6 and 7.5 hours each week.

I certainly encourage students to read as much of each book as they can (especially PhD students who will be taking comprehensive exams). However, this is also a good chance for students to hone their “strategic reading skills.” Not every part of every book (even classics) is equally critical to read. Those of us who read for a living develop strategies for getting the most from each work in an efficient manner. Typically, this means starting with the introduction and theory chapters, investigating the data and methods being used, getting a sense of key results from cases or analyses, and then looking for the takeaway conclusions and implications. If you are new to the field this will be more difficult. I give you permission, though, to practice. As long as you are able to provide thoughtful questions on Blackboard and participate actively in the classroom discussion, I won’t ask you how many pages of the book you read.

University Policies & Information

Honor Code

Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work. Violations of the Honor Code will not be tolerated and will be referred to the Honor Committee for investigation.

Plagiarism encompasses the following:

1. Presenting as one's own the words, the work, or the opinions of someone else without proper acknowledgment.
2. Borrowing the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgment.

For more information on this subject, please consult

<http://mason.gmu.edu/~montecin/plagiarism.htm>

Disability Accommodations

Disability Services at George Mason University is committed to providing equitable access to learning opportunities for all students by upholding the laws that ensure equal treatment of people with disabilities. If you are seeking accommodations for this class, please first visit <http://ds.gmu.edu/> for detailed information about the Disability Services registration process. Then please discuss your approved accommodation with me. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email:ods@gmu.edu | Phone: (703) 993-2474

Diversity and Inclusion

George Mason University values diversity and inclusion as an integral component of our goal to provide a living and learning environment for outstanding growth and productivity

among its students, faculty and staff. Diversity is broadly defined to include such characteristics as, but not limited to, race, ethnicity, gender, religion, age, disability, and sexual orientation. Diversity also entails different viewpoints, philosophies, and perspectives. Attention to these aspects of diversity will help promote a culture of inclusion and belonging, and an environment where diverse opinions, backgrounds and practices have the opportunity to be voiced, heard and respected. The [Center for Culture, Equity and Empowerment](#) (CCEE) provides direct student support to strengthen equity and inclusion at George Mason University, including [Student Engagement for Racial Justice](#) (SERJ) and [LGBTQ+ Resources](#).

Email

George Mason uses only Mason email accounts to communicate with enrolled students. Students must use their Mason email account to receive important University information, including communications related to this class. I will not respond to messages sent from or send messages to a non-Mason email address.

Writing Center

The Writing Center offers free writing support to Mason students and works with writers through all stages of the writing process from brainstorming and organizing to revising and polishing. Workshops and consulting sessions are offered in person and online. Van Metre Hall 212; (703) 993-1200; <http://writingcenter.gmu.edu>

“Ask a Librarian”

The George Mason Libraries offers multiple methods for contacting librarians for assistance in conducting research. <http://library.gmu.edu/ask>

Counseling and Psychological Services (CAPS)

CAPS is a mental health center that is dedicated to promoting the emotional and psychological health and wellness of our students, provide time-limited individual and group counseling, referral to community mental health providers, psychiatric and crisis counseling, and academic and wellness workshops. (703) 993-2380; <http://caps.gmu.edu>

University Catalog

[The University Catalog](#) is the central resource for university policies affecting student, faculty, and staff conduct in university academic affairs. Other policies are available at <http://universitypolicy.gmu.edu/>. All members of the university community are responsible for knowing and following established policies.

Campus Closure or Emergency Class Cancellation/Adjustment Policy

If the campus closes, or if a class meeting needs to be canceled or adjusted due to weather or other concern, students should check Blackboard for updates on how to continue learning and for information about any changes to events or assignments.

Course Schedule

Week 1. Introduction (August 23)

Gregory D. Koblentz, "Biosecurity Reconsidered: Calibrating Biological Threats and Responses," *International Security*, Vol. 34, No. 4 (Spring 2010), pp. 96-132.

Gregory D. Koblentz, "Dual-Use Research as a Wicked Problem," *Frontiers in Public Health*, Vol. 2 (August 4, 2014), pp. 1-4.

Suggested Readings

Gregory D. Koblentz, "Biological Weapons and Bioterrorism," in Simon Rushton and Jeremy Youde, eds., *The Routledge Handbook of Global Health Security* (Oxford: Routledge, 2014), pp. 118-129.

Gregory D. Koblentz, "Quandaries in Contemporary Biodefense Research," in Filippa Lentzos, ed., *Biological Threats in the 21st Century* (London: Imperial College Press, 2016), pp. 303-328.

Bonus Video

["Zombies and Coronavirus: Planning for the Next Big Outbreak,"](#) Comic-Con@Home, July 20, 2020.

Week 2. The History of Biological Warfare (August 30)

Jeanne Guillemin, *Biological Weapons: From the Invention of State-Sponsored Programs to Contemporary Bioterrorism* (New York: Columbia University Press, 2006).

Bonus Videos:

ZDF [documentary](#) on Unit 731

NHK [documentary](#) on Unit 731

Week 3. Security Implications of Biological Weapons (September 6)

Gregory D. Koblentz, *Living Weapons: Biological Warfare and International Security* (Ithaca: Cornell University Press, 2009).

Bonus Video:

Dr. Robert Kadlec, Assistant Secretary for Preparedness and Response, HHS, ["Evolution of US Biodefense Policy,"](#) Schar School of Policy and Government, December 4, 2018.

Week 4. Global Catastrophic Biological Risks (GCBRs) (September 13)

Toby Ord, *The Precipice: Existential Risk and the Future of Humanity*. Chapter 2: Existential Risk (pages 35-64) and Chapter 5: Future Risk (pages 121-138).

Monica Schoch-Spana, Anita Cicero, Amesh Adalja, Gigi Gronvall, Tara Kirk Sell, Diane Meyer, Jennifer B. Nuzzo, Sanjana Ravi, Matthew P. Shearer, Eric Toner, Crystal Watson, Matthew Watson, and Tom Inglesby, "Global Catastrophic Biological Risks: Toward a Working Definition," *Health Security* 15:4 (2017): 323-328.

Piers Millett and Andrew Snyder-Beattie, "Existential Risk and Cost-Effective Biosecurity," *Health Security* 15:4 (2017): 373-383.

Bonus Listen

Gregory Lewis on the 80,000 Hours [podcast](#)

Week 5. Health and Security (September 20)

Andrew Price-Smith, *Contagion and Chaos: Disease, Ecology, and National Security in the Era of Globalization* (Cambridge: MIT Press, 2008).

Week 6. Global Health Governance (September 27)

Sara E. Davies, Adam Kamradt-Scott, and Simon Rushton, *Disease Diplomacy: International Norms and Global Health Security* (Baltimore: Johns Hopkins University Press, 2015).

Week 7. Health and Security Revisited (October 4)

*****LITERATURE REVIEW PROPOSAL DUE*****

Stefan Elbe, *Virus Alert: Security, Governmentality, and the AIDS Pandemic* (New York: Columbia University Press, 2009).

Week 8. Assessing the Risk of Bioterrorism (October 11)

Richard Danzig, *Catastrophic Bioterrorism: What is to be Done?* (Washington, DC: National Defense University, 2003).

Milton Leitenberg, "The Self-Fulfilling Prophecy of Bioterrorism," *The Nonproliferation Review*, Vol. 16, No. 1 (March 2009), pp. 95-109.

Jessica Stern, "Dreaded Risks and the Control of Biological Weapons," *International Security*, Vol. 27, No. 3 (Winter 2002/03), pp. 89-123.

Week 9. Sociotechnical Analysis of Biological Threats (October 18)

Kathleen M. Vogel, *Phantom Menace or Looming Danger? A New Framework for Assessing Bioweapons Threats* (Baltimore: Johns Hopkins Press, 2012).

Independent Advisory Group on Public Health Implications of Synthetic Biology Technology Related to Smallpox, *Report to the Director-General of the WHO* (Geneva: WHO, 2015), pp. 17-24.

Suggested

Ryan S. Noyce, Seth Lederman, and David H. Evans, "Construction of an infectious horsepox virus vaccine from chemically synthesized DNA fragments," *PLOS One*, January 19, 2018.

Week 10. The Dual-Use Dilemma (October 25)

Jonathan B. Tucker, ed., *Innovation, Dual Use, and Security: Managing the Risks of Emerging Biological and Chemical Technologies* (Cambridge: MIT Press, 2012).

Week 11. Medical Countermeasures (November 1)

Kendall Hoyt, *Long Shot: Vaccines in National Defense* (Cambridge: Harvard University Press, 2012).

David Shulkin, "What Healthcare Can Learn from Operation Warp Speed," *New England Journal of Medicine*, January 21, 2021

Week 12. Evolution of U.S. Biodefense Strategy (November 8)

Frank L. Smith, III, *American Biodefense: How Dangerous Ideas about Biological Weapons Shape National Security* (Ithaca: Cornell University Press, 2014).

Video Assignment:

[Biological Warfare Defense 1953 US Navy Training Film](#) on YouTube

Week 13. Barriers to Bioweapons (November 15)

Sonia Ben Ouargham-Gormley, *Barriers to Bioweapons: The Challenge of Expertise and Organization for Weapons Development* (Ithaca: Cornell University Press, 2014).

Melissa Hanham, "[Kim Jong Un Tours Pesticide Facility Capable of Producing Biological Weapons](#)," *38North.org*, July 9, 2015.

Bonus Video:

[The Anthrax Diaries: An Anthropology of Biological Warfare](#)

Week 14. Thanksgiving Recess (November 22)

****NO CLASS****

Week 15. Future Biodefense Research Agenda (November 29)

Please post your 2-3 research questions or puzzles by November 26. Please post your ideas for answering someone else's questions or puzzles by November 29.

December 6: Literature Review Paper Due at 11:59 PM ET