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School of Criminology and Justice Studies

CRIM.3480: Advanced Seminar on Weapons of Mass Destruction and Terrorism

Fall 2016
Mon/Wed 12:30am-1:45pm

Course Instructor

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Office: HSS Bldg. Room 437
Office Hours: Mon/Wed 10-11:30am and 2:30-4pm *by appointment only*

Course Overview

This course offers an initial examination of unique security challenges associated with weapons of mass destruction (WMD) and the threat of a terrorist group acquiring and using WMD. The first part of the course will examine the scientific and technological details of chemical, biological, radiological and nuclear (CBRN) weapons. Then we will explore the WMD threat to critical infrastructure, efforts to constrain the proliferation of CBRN weapons, and the role of the intelligence community, state and local responders, and community resilience in responding to the complex threat of WMD.

Course Learning Goals

Upon completion of the course, students will be able to articulate a solid understanding of:

- The basic types, components, and effects of chemical, biological, radiological and nuclear weapons;
- The complex challenges of transnational WMD proliferation;
- Modern state-based WMD challenges, including Iran, North Korea, Syria, Pakistan, and Russia;
- International efforts to prevent WMD proliferation;
- How to assess the threat of WMD terrorism (including from al-Qaida, Jemaah Islamiyah, Chechen insurgent groups, and extremist in the U.S.);
- U.S. federal, state, and local responses to the WMD terrorist threat; and
- Key aspects of science, technology, and private sector innovation that contribute to the prevention of (or response to) a WMD terrorist attack.

Course Textbook (Required)
The following textbook will be required for this course:

> ***Weapons of Mass Destruction and Terrorism***
> Authors/Editors: James Forest and Russell Howard
> Edition/Copyright: 2nd Edition, 2012, McGraw-Hill
> ISBN: 978-007-8026225

Be sure you get the 2012 edition of this book (not the older 2007 edition). Additional material will be listed with a website, e-mailed to students, or posted on the course **Blackboard course website** (see p. 8 for Blackboard access information).

Please consult the instructor with any questions you may have about books or journal articles you want to use for resources in preparing your research paper for this class. Also, online resources of specific interest to students in this course include the following:

Perspectives on Terrorism	http://www.terrorismanalysts.com/pt
Nuclear Threat Initiative	http://www.nti.org
Center for Nonproliferation Studies	http://cns.miis.edu
The CTC Sentinel	http://www.ctc.usma.edu/sentinel
The Belfer Center, Harvard University	http://belfercenter.ksg.harvard.edu
Global Threat Reduction Initiative	http://nnsa.energy.gov/gtri
Proliferation Security Initiative	http://www.state.gov/t/isn/c10390.htm
Federation of American Scientists	http://www.fas.org
Carnegie Endowment for International Peace	http://www.carnegieendowment.org
Defense Threat Reduction Agency	http://www.dtra.gov
RAND Corporation	http://www.rand.org
Center for International Security & Cooperation	http://www.cisac.stanford.edu
Center for Terrorism & Security Studies	http://www.uml.edu/ctss

MAJOR ASSIGNMENTS

1) Block Quizzes *(300 points - 30% of final grade)*

This course is divided into blocks of instruction, with four blocks focused on each of the four main categories of WMD: chemical, biological, radiological, and nuclear. At the end of each block, there will be a 75-point quiz to determine your familiarity with, and retention of, material presented in that block. These quizzes will assess your understanding of key terms, types of weapons and materials, the impacts of different weapons, and the kinds of weapons that various countries and non-state actors are believed to possess. These quizzes are **open notes**, but not open book. They will be based roughly 2/3 from the reading assignments, and 1/3 from the lectures. Therefore, during class or while reading it is in your interests to write some useful notes that you can refer to during the quizzes. The dates of these exams are as follows:

SEPTEMBER 26	Chemical Weapons Quiz
OCTOBER 5	Biological Weapons Quiz
OCTOBER 19	Radiological Weapons Quiz
OCTOBER 31	Nuclear Weapons Quiz

NOTE: There are no makeup assignments for missed or failed exams.

2) WMD Threat and Response Scenario *(300 points - 30% of final grade)*

The major assignment for this course requires you to create a scenario with details about a fictional but realistic WMD terrorist threat and a strategy for how government agencies should respond. Your paper should be approximately 15-20 pages, and should reflect what you have learned in this course. You will be expected to incorporate scholarly articles, books, reports, and other materials. Some websites may be okay, but do so sparingly. **More information on this assignment is provided in the "WMD Threat Scenario Guidance"** handout (distributed in class and available on Blackboard). This paper is due December 5, 2016.

3) Final Exam *(300 points - 30% of final grade)*

Our final will be scheduled for a 3-hour period, TBD during the second week of December. This exam will focus primarily on the second half of the course, and assess your knowledge of local, state, national, and international dimensions of the response to the threat of a WMD terrorist attack. Questions will cover a broad range of topics, from international intelligence cooperation to regimes and chemical sensors. You will also be asked to explain what can/should be done (and by whom) to improve the prevention and/or effective response to a WMD terrorist event.

4) Class Participation *(100 points - 10% of final grade)*

In this class, students are considered valued colleagues in the learning process. You are expected to come prepared to all class meetings, and to participate actively and meaningfully in all discussions. The grade calculation for this is simple – if you show up to

every class, speak up regularly in class *with informed opinions that incorporate the reading assignments*, and generally demonstrate an active commitment to learning the material, you will receive 100 points. If you miss too many classes, or frequently come unprepared to class, and do not participate in discussions, you will receive 0 points. For some students, this could determine the difference of an entire letter grade.

Graded Assignments Summary

Assignment	**Due Date**	**% of Final Grade**
Block Quizzes (4)	9/26, 10/5, 10/19, 10/31	30%
WMD Threat and Response Scenario	Dec 5	30%
Final Exam	TBD	30%
Class Participation	Weekly	10%

**** Extra Credit Opportunity ****

For those seeking an opportunity to improve their overall course grade, you may consider doing the following research project: (1) Interview a local or state law enforcement officer about their department's preparation to deal with a specific type of WMD terrorism attack. Then (2) write up your interview in a formal research paper and provide some analysis of what that department – and law enforcement agencies in general – need to know and do about the threat of WMD terrorism. This extra credit research paper will be due in class November 21 (*i.e. before Thanksgiving Break*).

COURSE POLICIES

Grading
All grades are weighted on a 4.0 system using the following allocation:

Grade	%	Grade	%
A	93.0-100%	C+	77.0-79.9%
A-	90.0-92.9%	C	73.0-76.9%
B+	87.0-89.9%	C-	70.0-72.9%
B	83.0-86.9%	D	67.0-69.9%
B-	80.0-82.9%	F	<67.0%

**** Note: Assignments received after they are due will automatically be reduced by a ½ grade for every day late.**

More information about the University of Massachusetts-Lowell grading policies is available online at:
http://www.uml.edu/registrar/grades%20and%20transcripts/grading.html
and
http://www.uml.edu/catalog/undergraduate/policies/grading_policies.htm

Make-up Exams and Assignments
Assignments are due at the beginning of the class on the date indicated in the schedule. Do not submit papers via e-mail – print it and bring to class. **Papers received late will be automatically reduced by a ½ a grade for each 24-hour period after the deadline for that assignment.**

There are no make-up exams for the block quizzes.

Paper Grading Criteria

***A** range:*

The paper is clear, engaging, original, and focused; ideas and content are richly developed with details and examples. Organization and form enhance the central idea and theme; ideas are presented coherently to move the reader through the text. The voice of the writer is compelling and conveys the writer's meaning through effective sentence structure and precise word choices. The writer successfully moves the paper through academic constructs and experiential documentation to critical analysis. The paper demonstrates a clear balance of these three components.

***B** range:*

The paper is reasonably clear, focused, and well supported; ideas are adequately developed through details and examples. Organization and form are appropriate, and ideas are generally presented coherently. The voice of the writer contributes to the writer's meaning through appropriate and varied sentence structure and word choices. Surface features do not interfere with understanding or distract from meaning. The writer has clearly brought the reader through properly cited academic constructs and experiential documentation, but has not fully developed the area of critical analysis.

***C** range:*

The paper has some focus and support; ideas and content may be developed with limited details and examples. The writing may be somewhat disorganized or too obviously structured. The voice of the writer is generally absent; basic sentence structure and limited vocabulary convey a simple message. Surface feature errors may reduce understanding and interfere with meaning. The content areas of academic constructs are limited and large generalizations are made. Critical analysis is all but absent from the paper.

***D** range:*

The paper has little focus and development; few details and examples support ideas and content. There is little discernible shape and no direction. The writer's tone is flat. Awkward sentence structure and inadequate vocabulary interfere with understanding. Limited control of surface features makes paper difficult to read. Critical analysis is absent, and segments of the paper are given to rambling descriptions of life experience without academic context.

<u>Classroom Courtesy</u>
Classroom courtesy is an essential component of creating an effective learning environment. All students have the right to learn without unnecessary distractions. These distractions include: cell phones, talking during lectures (unless recognized by the instructor), reading newspapers, falling asleep, etc. If you need a cell phone for emergency purposes, leave it on vibrate. Entering and leaving the classroom during the class period are also major sources of distraction. It is your responsibility to be on time and to stay for the entire period. In circumstances where you need to leave early, tell the instructor beforehand. Repeated disruptions of class will negatively impact your class participation grade.

Most importantly, class discussions of issues relating to politics, security strategies, and criminology, especially as they relate to terrorism, can lead to strong feelings and heated debate. Because this is a college classroom, all discussion must be respectful and scholarly.

Scholarly Comments:
– are respectful of diverse opinions and open to follow up questions and/or disagreement

- are related to class and/or the course material
- focus on advancing the discussion about issues related to the course and/or course material rather than personal beliefs, and
- are delivered in normal tones and a non-aggressive manner.

Unacceptable Comments:
- are personal in nature. This includes attacks on a person's appearance, demeanor, or political beliefs.
- include interrupting the instructor or other students. Raise your hand and wait to be recognized.
- often use the discussion to argue for political positions and/or beliefs. If political discussions arise, they must be discussed in a scholarly way (see above).
- may include using raised tones, yelling, engaging in arguments with other students and being threatening in any manner.
- include ignoring the instructor's authority to maintain the integrity of the classroom environment.

The instructor reserves the right to eject anyone from the classroom based on inappropriate behavior. ***The instructor also has the right to confiscate laptops, cell phones or other disruptive electronics that are being used in a manner that negatively impacts the learning environment.***

Academic Integrity

Cheating and plagiarism should not be tolerated in any academic environment, and I intend to hold everyone equally accountable to that standard. If you witness an incident of concern, you should report it right away, as this protects the integrity of your own degree program. Please review the University policy on academic dishonesty, cheating and plagiarism at:
http://www.uml.edu/catalog/undergraduate/policies/academic_dishonesty.htm

Student Complaints

Students have a right to voice legitimate concerns about their educational experience. The University's guidelines are available online at:
http://www.uml.edu/catalog/undergraduate/policies/student_complaints.htm

Inclement Weather and Other Class Cancellations

If, for any reason, a class is unable to meet as regularly scheduled, the instructor will make that day's lecture slides available on the Blackboard website. Where feasible, a virtual class discussion may also be held, using the Blackboard Chat function (participation in these virtual discussions is voluntary). Most importantly, even though the class meeting has been cancelled, you are still required to do the reading assignment for that class. Keep in mind that even if the class doesn't meet, the assigned materials may still be on the midterm or final exams.

UMass Lowell Blackboard Access Information

Blackboard Access Information for Students
Students can login to Blackboard by going to http://uml.umassonline.net and using their **student.uml.edu** email usernames and passwords.

How to Get Technical Help (Monday - Friday 8:30am - 5:00pm EST)
If you are having problems with Blackboard, please contact the Division of Online and Continuing Education technical support:
Local Phone Number: 1-978-934-2467
Toll Free Number: 1-800-480-3190

Blackboard Tutorials
Once logged into Blackboard, tutorials for using basic Blackboard features can be found by clicking on the

Blackboard Learn Tutorials for Students link in the upper right corner of the **UML Online Learning** landing page.

CRIM3480 Advanced Seminar in WMD & Terrorism
CLASS SCHEDULE SUMMARY

Block 1: Conceptual Frameworks		
Wednesday, Sept 7	Monday, Sept 12	Wednesday, Sept 14
Block 2: Chemical Weapons		
Monday, Sept 19	Wednesday, Sept 21	Monday, Sept 26*
Block 3: Biological Weapons		
Wednesday, Sept 28	Monday, Oct 3	Wednesday, Oct 5*
Block 4: Radiological Weapons		
Wednesday, Oct 12	Monday, Oct 17	Wednesday, Oct 19*
Block 5: Nuclear Weapons		
Monday, Oct 24	Wednesday, Oct 26	Monday, Oct 31*
Block 6: Assessing and Countering the WMD Terrorist Threat		
Wednesday, Nov 2	Monday, Nov 7	Wednesday, Nov 9
Monday, Nov 14	Wednesday, Nov 16	Monday, Nov 21
Monday, Nov 28	Wednesday, Nov 30	Monday, Dec 5 *(Paper due)*
Wednesday, Dec 7		

** denotes block quiz date*

DETAILED SCHEDULE

All required readings must be completed prior to the class meeting and lecture discussion for that lesson. In addition, a list of supplemental readings is provided toward the end of this syllabus, which students are *encouraged* to read as well.

NOTE: Blackboard is used in this course to distribute assigned reading materials and to promote discussion. **Reading assignments available on Blackboard are indicated below with (*BB*). See p. 8 for Blackboard access information.** Also, please come prepared with your thoughts and ideas regarding the "Questions for Class Discussion" listed for each lesson.

BLOCK 1: CONCEPTUAL FRAMEWORKS

Learning Objectives

The lecture, readings and discussions of this introductory section will help students develop an appreciation for the spectrum of weapons of mass destruction (WMD - chemical, biological, radiological, and nuclear, also referred to as "CBRN" weapons); the evolving nature of the threats posed by these weapons; states and violent non-state actors most interested in these kinds of weapons; and the unique challenges faced by states in responding to this particular form of security threat.

WEDNESDAY, SEPTEMBER 7

Required Readings

None. Familiarize yourself with the course syllabus, the Blackboard website and the website resources listed above. We will review terminology, course assignments and expectations during this first class meeting.

MONDAY. SEPTEMBER 12

Required Readings

Textbook 1.2: James J.F. Forest, "Opportunities and Limitations for WMD Terrorism," p. 55-72

Textbook 1.2: Bruce Hoffman, "CBRN Terrorism Post-9/11," p. 39-54

WEDNESDAY, SEPTEMBER 14

Required Readings

Textbook 4.2: Matthew C. Waxman, "Self-Defense and the Limits of WMD Intelligence," p. 477-496

WMD Commission Report, "An Intelligence Community Primer," **(*BB*)**

Questions for Class Discussions:

- Why have some terrorist groups shown an interest in WMD, while most have not?
- Of the four categories of WMD, which is the most attractive to terrorists, and why?
- Understanding the threat of WMD requires information on at least three dimensions: intentions, capabilities, and enabling environment. Within each of these, what kinds of potential change in the future could significantly alter the perceived threat of a WMD attack against the U.S.?
- What U.S. organizations are most heavily involved in gathering and analyzing intelligence for a counter-WMD effort?
- How can the U.S. improve international intelligence cooperation? Further, what can be done to improve intelligence collaboration between federal, state and local agencies?
- What should be done about Syria's alleged use of WMD (2014-2016?)
- Why are there so many smart, talented people hard at work around the world trying to develop new kinds of WMD? Isn't there enough destructive power in the world already?

BLOCK 2: CHEMICAL WEAPONS

Learning Objectives
The lectures, readings and discussions in Block 2 will help students develop an understanding of the scientific and technical aspects of chemical weapons, and an appreciation for the current domestic and global threats associated with these weapons, especially why some states and violent non-state actors appear interested in acquiring chemical weapons despite prohibitions against their use.

MONDAY, SEPTEMBER 19

Required Readings
Textbook 2.1: NA & DHS Fact Sheet, "Chemical Warfare Agents," p. 91-97
Textbook 2.5: Robert Jones, Brandon Wills, and Christopher Kang, "Chlorine Gas," p. 291-300

WEDNESDAY, SEPTEMBER 21

Required Readings
Textbook 2.1: Jonathan Tucker, "Chemical Terrorism," p. 98-111

MONDAY, SEPTEMBER 26

Required Readings
John V. Parachini, "The Making of Aum Shinrikyo's Chemical Weapons Program," in *The Making of a Terrorist* (Volume 2), edited by James J.F. Forest (Westport, CT: Praeger, 2005). **(*BB*)**
Chemical Weapons Quiz (last half of class)

Questions for Class Discussion:
- Why have states developed and used chemical weapons?
- Under what conditions might some states establish new (or renew old) chemical weapons programs?
- Why would a terrorist group use chemical weapons?
- What kind(s) of chemical weapons are probably most attractive to a terrorist group, and why?
- How might a terrorist group acquire chemical weapons?
- What does a government agency need to know in order to effectively respond to a chemical terrorist attack?

BLOCK 3: BIOLOGICAL WEAPONS

Learning Objectives

The lectures, readings and discussions in Block 3 will help students develop an understanding of the scientific and technical aspects of biological weapons; the history of the use of these weapons by states and non-state actors; the current domestic and global threats associated with these weapons, especially why some states and violent non-state actors appear interested in acquiring biological weapons despite prohibitions against their use; and the unique challenges faced by states in responding to this particular form of security threat.

WEDNESDAY, SEPTEMBER 28

Required Readings

Textbook 2.2: NA & DHS Fact Sheet, "Human Pathogens, Biotoxins and Agricultural Threats," p. 113-122

Textbook 2.2: James W. Martin, George W. Christopher, and Edward M. Eitzen, "History of Biological Weapons", p. 123-147.

MONDAY, OCTOBER 3

Required Readings

Textbook 3.2: Mark Wheelis, Rocco Casagrande, and Lawrence V. Madden, "Biological Attack on Agriculture," p. 365-378.

WEDNESDAY, OCTOBER 5

Required Readings

Textbook 3.2: John McNabb, "Chemical and Biological Threats against Public Water Systems," p. 338-364.

Biological Weapons Quiz (last half of class)

Questions for Class Discussions:

- In what ways do biological weapons differ from chemical weapons?
- Do these differences matter in terms of how states (or terrorists) view their potential usefulness?
- What are some fundamental reasons why most terrorists have not shown a significant interest in biological weapons?
- Why would a terrorist group use biological weapons?
- What kind(s) of biological weapons are probably most attractive to a terrorist group, and why?
- How might a terrorist group acquire biological weapons?
- What does a government agency need to know in order to effectively respond to a biological terrorist attack?

BLOCK 4: RADIOLOGICAL WEAPONS

Learning Objectives

The lectures, readings and discussions in Block 4 will help students develop an understanding of the scientific and technical aspects of radiological weapons, as well as the prospects for attacking a nuclear power plant as a way of releasing high amounts of radiological material over a populated area. The lesson also examines the current domestic and global threats associated with these weapons, especially why some states and violent non-state actors appear interested in acquiring radiological weapons, despite the fact that there are no historical examples of their successful use; and the unique challenges faced by states in responding to this particular form of security threat.

MONDAY, OCTOBER 10 – *COLUMBUS DAY (NO CLASSES)*

[NOTE: Despite the Registrar's attempts to manipulate the calendar, ***this class does not meet on any day other than a real Monday or a real Wednesday*** *]*

WEDNESDAY, OCTOBER 12

Required Readings

Textbook 2.3: NA & DHS Fact Sheet, "Dirty Bombs and Other Devices," p. 179-184.

Textbook 2.3: Charles D. Ferguson and Michelle M Smith, "Assessing Radiological Weapons," p. 185-199.

Nuclear Regulatory Commission, "Enrichment Fact Sheet," **(*BB*)**

MONDAY, OCTOBER 17

Required Readings

Textbook 3.3: Gavin Cameron, "Nuclear Terrorism: Reactors and Radiological Attacks After September 11," p. 380-398.

WEDNESDAY, OCTOBER 19

Required Readings

Textbook 2.5: Jeffrey M. Bale, "The North Caucasus Conflict and the Potential for Radiological Terrorism," p. 270-290.

Radiological Weapons Quiz (last half of class)

Questions for Class Discussions:

- In what ways are radiological weapons similar to chemical weapons?
- In what ways do radiological weapons differ from biological weapons?
- Why would a terrorist group use a radiological weapon?
- How might a terrorist group acquire a radiological weapon?
- What does a government agency need to know in order to effectively respond to a radiological terrorist attack?

BLOCK 5: NUCLEAR WEAPONS

Learning Objectives

The lectures, readings and discussions in Block 5 will help students develop an understanding of the scientific and technical aspects of nuclear weapons; the current domestic and global threats associated with these weapons, especially why some violent non-state actors (like al-Qaida) are actively seeking nuclear weapons or weapons programs; and the unique challenges faced by states in responding to this particular form of security threat.

MONDAY, OCTOBER 24

Required Readings

Textbook 2.4: NA & DHS Fact Sheet, "Nuclear Weapons," p. 201-208.

Textbook 2.4: Morten Bremer Maerli, Annette Schaper and Frank Barnaby, "The Characteristics of Nuclear Terrorist Weapons," p 209-222.

WEDNESDAY, OCTOBER 26

Required Readings

Textbook David Albright and Corey Hinderstein, "Unraveling the A.Q. Khan and Future Proliferation Networks," p. 256-269.

Textbook 4.5: David Albright, Paul Brannan, and Andrea Sheel Stricker, "Detecting and Disrupting Illicit Nuclear Trade After A.Q. Khan," p. 618-635.

MONDAY, OCTOBER 31

Required Readings

Charles D. Ferguson and William C. Potter, "Improvised Nuclear Devices and Nuclear Terrorism" (Monterey Institute for International Studies, 2004), p. 1-19. **(*BB*)**

Nuclear Weapons Quiz (last half of class)

Questions for Class Discussion:

- Under what conditions might some states establish new nuclear weapons programs?
- How might a terrorist group acquire nuclear weapons?
- How did AQ Khan get away for so many years with his elaborate global network of nuclear materials proliferation?
- Why would a terrorist group use nuclear weapons?
- What does a government agency need to know in order to effectively respond to a nuclear terrorist attack?

BLOCK 6: ASSESSING & RESPONDING TO THE WMD TERRORIST THREAT

Learning Objectives

The lectures, readings and discussions in Block 6 will examine and critique various strategies for combating the threat of WMD terrorism; the intelligence challenges involved in confronting state-based WMD proliferation, clandestine criminal networks, and the critical importance of human intelligence in denied areas; and concepts of community and national resilience.

WEDNESDAY, NOVEMBER 2

Required Readings

Textbook 4.1: Mary Beth Nikitin, Paul Kerr, Steven Hildreth, "Proliferation Control Regimes: Background and Status," p. 418-451

Desmond Butler, "Georgia's Nuclear Black Market," **(*BB*)**

MONDAY, NOVEMBER 7

Required Readings

Nuclear Threat Initiative, Radiological Security Progress Report: Preventing Dirty Bombs - Fighting Weapons of Mass Disruption (March 2016) **(*BB*)**

WEDNESDAY, NOVEMBER 9

Required Readings

Textbook 2.4: John Mueller, "The Atomic Terrorist?" p. 236-254

Textbook 2.4: Matthew Bunn and Anthony Wier, "The Seven Myths of Nuclear Terrorism," p. 223-235.

MONDAY, NOVEMBER 14

Required Readings

Gary A. Ackerman & Lauren E. Pinson (2014) "An Army of One: Assessing CBRN Pursuit and Use by Lone Wolves and Autonomous Cells," *Terrorism and Political Violence,* 26:1, p. 226-245 **(*BB*)**

WEDNESDAY, NOVEMBER 16

Required Readings

Textbook 4.3: Ashton B. Carter, Michael M. May and William J. Perry, "The Day After: Action Following a Nuclear Blast in a U.S. City," p. 507-517

MONDAY, NOVEMBER 21

Required Readings

Textbook 4.3: Ronald W. Perry and Michael K. Lindell, "Understanding Citizen Response to Disasters with Implications for Terrorism," p. 518-535.

Textbook 4.4: Sam Berger and Jonathan D. Moreno, "Public Trust, Public Health, and Public Safety: A Progressive Response to Bioterrorism," p. 597-616

WEDNESDAY, NOVEMBER 23 – *THANKSGIVING HOLIDAY (TRAVEL DAY) – NO CLASS*

MONDAY, NOVEMBER 28

Required Readings

Textbook 4.4: Lea Ann Fracasso, "Developing Immunity," p. 537-561

WEDNESDAY, NOVEMBER 30

Required Readings

Textbook 4.4: Crystal Franco and Nidhi Bouri, "Environmental Decontamination Efforts Following a Large-Scale Bioterrorism Attack," p. 562-578

Textbook 4.5: Robyn Pangi, "Consequence Management in the 1995 Sarin Attacks on the Japanese Subway System," p. 657-686

MONDAY, DEC 5

Required Readings

Textbook 3.1: Gary Ackerman, Jeffrey M. Bale, Kevin S. Moran, "Assessing the Threat to Critical Infrastructure," p. 305-326

"Radiation Detectors to Go: Mobile Radiation Detectors Deployed at International Ports" *Science Daily* (Nov. 24, 2013) **(*BB*)**

**** WMD Terrorism Threat Scenario Paper Due in class on December 5 ****

WEDNESDAY, DEC 7

Required Readings

Textbook 5.4: Adam Dolnik and James J.F. Forest, "Conclusion," p. 753-765

DEC 9–16: FINAL EXAMS

Questions for Class Discussions:

- How effectively is the U.S. is confronting the threat of WMD? What should the U.S. do that is not already being done to constrain WMD proliferation?
- Which of the major treaties—the Nuclear Non-Proliferation Treaty, the Biological and Toxin Weapons Convention, and the Chemical Weapons Convention—do you think has been the least effective, and why?
- If it is only a matter of time until we see a WMD terrorist attack somewhere in the world, where do you think we will see the first major WMD terrorist attack, and why?
- Some argue that the WMD terrorist threat is mostly just hype, and causes us to waste lots of resources on something that is very unlikely to happen in our lifetime. What do you think?

List of Acronyms

AFRICOM U.S. Africa Command
ASM Air-to-Surface Missiles
BS&S Biosecurity and Biosafety
BTRP Biological Threat Reduction Program
CBR Cooperative Biological Research
CDC Centers for Disease Control and Prevention
CTR Cooperative Threat Reduction
CWC Chemical Weapons Convention
CWD Chemical Weapons Destruction
DASD/ISP Deputy Assistant Secretary for Defense for International Security Policy
DMC Defense and Military Contacts Program
DOD Department of Defense
DOD CTR Department of Defense Cooperative Threat Reduction
DOE Department of Energy
DPRK Democratic People's Republic of Korea
DTRA Defense Threat Reduction Agency
EDP Especially Dangerous Pathogens
EPA Environmental Protection Agency
EU European Union
FMSF Fissile Material Storage Facility
FSU Former Soviet Union
FTE Full-Time Equivalent
G8 Group of Eight
G8 GP G8 Global Partnership
GAO Government Accountability Office
GICNT Global Initiative to Combat Nuclear Terrorism
GP Global Partnership
GSE Global Security Engagement
HEU Highly Enriched Uranium
HHS Department of Health and Human Services
HSC Homeland Security Council
IED Improvised Explosive Device
IAEA International Atomic Energy Agency
ICBM Intercontinental Ballistic Missiles
ICP International Counterproliferation
JVE Joint Verification Experiment
LEU Low-Enriched Uranium
MPC&A Material Protection, Control and Accounting
NAS National Academy of Sciences
NCID National Center for Infectious Diseases
NDF Nonproliferation and Disarmament Fund
NGO Nongovernment Organization
NIS Newly Independent States
NRC National Research Council
NSC National Security Council
NTI Nuclear Threat Initiative
NWSS Nuclear Weapons Storage Security Program
NWTS Nuclear Weapons Transportation Security Program
OMB Office of Management and Budget
OPCW Organization for the Prohibition of Chemical Weapons
OSAC Overseas Security Advisory Council
OTA Congressional Office of Technology Assessment
PART Program Assessment Rating Tool
PNSR Project on National Security Reform
PPI Proliferation Prevention Initiative
PSI Proliferation Security Initiative
RDD Radiological Dispersion Device, or Dirty Bomb
RMTC Russian Methodological and Training Center
SAIC Science Applications International Corporation
SLBM Submarine-Launched Ballistic Missile
SNA Social Network Analysis
SNAE Strategic Nuclear Arms Elimination
SNF Spent Nuclear Fuel
SOAE Strategic Offensive Arms Elimination Program
SSBN Strategic Nuclear-Powered Ballistic Missile Submarine
SSD Safety, Security, and Dismantlement
START Strategic Arms Reduction Treaty
STCU Science and Technology Center in Ukraine
STC Science and Technology Centers
TADR Threat Agent Detection and Response
TCTs Traveling Contact Teams
UN United Nations
UNSCR United Nations Security Council Resolution
USAID United States Agency for International Development
USAMRIID U.S. Army Medical Research Institute for Infectious Diseases
USDA United States Department of Agriculture
USG United States Government
USSR Union of Soviet Socialist Republics
WMD Weapons of Mass Destruction
WMDIE Weapons of Mass Destruction Infrastructure Elimination Program

James J.F. Forest, Ph.D. is a Professor and Director of Security Studies at the University of Massachusetts Lowell, and a senior fellow with the U.S. Joint Special Operations University. He holds a top secret clearance with the U.S. Department of Defense, and has taught courses and seminars on terrorism, counterterrorism, weapons of mass destruction and security studies for a broad range of civilian, law enforcement and military audiences for over a decade. Dr. Forest previously served on the faculty of the United States Military Academy (2001-2010), six of those years as Director of Terrorism Studies, and directed a series of research initiatives for the Combating Terrorism Center at West Point.

His 20 published books include:

- Essentials of Counterterrorism (Praeger, 2015)
- *The Terrorism Lectures* (2nd Edition, Nortia Press, 2015)
- *Homeland Security and Terrorism* (w/R. Howard & J. Moore, McGraw-Hill, 2013)
- *Countering the Terrorist Threat of Boko Haram in Nigeria* (JSOU Press, 2012)
- *Weapons of Mass Destruction and Terrorism*, 2nd edition (McGraw-Hill, 2012, with Russell Howard)
- *Influence Warfare: How Terrorists and Governments Fight to Shape Perceptions in a War of Ideas* (Praeger, 2009).
- *Handbook of Defence Politics: International and Comparative Perspectives* (Routledge, 2008, with Isaiah Wilson)
- *Countering Terrorism and Insurgency in the 21st Century* (3 volumes: Praeger, 2007)
- *Teaching Terror: Strategic and Tactical Learning in the Terrorist World* (Rowman & Littlefield, 2006)
- *Homeland Security: Protecting America's Targets* (3 volumes: Praeger, 2006)
- *The Making of a Terrorist: Recruitment, Training and Root Causes* (3 volumes: Praeger, 2005)

Dr. Forest has also published dozens of articles in journals such as *Terrorism and Political Violence, Contemporary Security Policy, Crime and Delinquency, Perspectives on Terrorism,* the *Cambridge Review of International Affairs,* the *Georgetown Journal of International Affairs,* the *Journal of Political Science Education,* and *Democracy and Security*. Dr. Forest has been interviewed by many newspaper, radio and television journalists, and is regularly invited to give speeches and lectures in the U.S. and other countries. He has also served as an advisor to the Future of War panel for the Defense Science Board, testified before Congressional committees, and served as an expert witness for terrorism-related court cases.

Dr. Forest received his graduate degrees from Stanford University and Boston College, and undergraduate degrees from Georgetown University and De Anza College.