

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

American Public University System

The Ultimate Advantage is an Educated Mind

School of Security and Global Studies
HLSS212
Chemical, Biological, Radiological and Nuclear
Threats to the Homeland
Credit Hours: 3
Length of Course: 8 Weeks
Prerequisite: NONE

Course Description (Catalog)

HLSS212 provides an in-depth study of the history of Chemical, Biological, Radiological and Nuclear (CBRN) agent and material development and use by nations, nation-states, state-sponsored organizations, and terrorists. This course further examines CBRN threats worldwide and reviews CBRN Arms Limitations, Treaties, Organizations, Regimes and Agreements. Finally, the course discusses various approaches to deter use of CBRN agents, materials, and weapons.

Course Scope

This course provides basic knowledge building and comprehension in the discipline.

Course Objectives

After successfully completing this course, you will be able to:

- CO-1** Describe chemical, biological, radiological, nuclear (CBRN) weapons
- CO-2** Identify basic threats associated with CBRN weapons
- CO-3** Summarize past terrorist use of CBRN weapons based on case studies
- CO-4** Compare and contrast various CBRN weapons that could be used in a terrorist attack

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CO-5 Examine critical knowledge of the current CBRN threat

Course Delivery Method

This course, delivered via distance learning, will enable students to complete academic work in a flexible manner, completely online. Course resources and access to an online learning management system will be available to each student. Online assignments are due by Sunday at 11:55 pm ET and include all written assignments, examinations, and research papers submitted for grading. Weekly Forum questions (accomplished in groups in a Forum) require an initial response by Thursday at 11:55 pm ET, with all other required responses due by Sunday at 11:55 pm ET. The assigned faculty will support the students throughout this eight-week course.

Course Resources

There is not an assigned text for this course. The readings consist of selected e-book chapters and journal articles.

Please visit <http://apus.libguides.com/er.php> and search by the course number (ex: HLSS212) to access your required resources.

Weekly Lesson Notes and videos or audio files are found in the "Lessons" area of the classroom.

Evaluation Procedures

Forum discussions – 25 percent

Each week, a discussion question is provided and posts should reflect an assimilation of the readings. Students are required to provide a substantive initial post by Thursday at 11:55 pm ET and respond to two (2) or more classmates by Sunday 11:55 pm ET. Forum posts are graded on timeliness, relevance, knowledge of the weekly readings, and the quality of original ideas.

Midterm assignment - 25 percent

This assignment is a take-home exam that consists of multiple choice, fill in the blank and short answer questions, to test knowledge and assimilation of the course objectives. The exclusive use of required texts and readings from this course is mandatory.

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Progress assignment - 25 percent

This assignment is a take-home exam that consists of multiple choice, fill in the blank and short answer questions, to test knowledge and assimilation of the course objectives. The exclusive use of required texts and readings from this course is mandatory.

Final assignment – 25 percent

This assignment is a take-home essay assignment of 5 pages total, to test knowledge and assimilation of the course objectives.

Grade Instruments	Percentage
Forum Discussions (8)	25
Midterm Assignment	25
Progress Assignment	25
Final Assignment	25
Total	100

8 – Week Course Outline

Week 1: CBRN Overview

Course Objective: CO1

Assignments: Complete Introduction Forum and Week 1 Forum

Required Readings:

Sinai, Joshua. 2007. "The Evolving Terrorist Threat: The Convergence of Terrorism, Proliferation of WMD, and Enabling Conditions in Weak and Strong States." *The Journal of Counterterrorism & Homeland Security International*. 13, no. 2.

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Mauroni, A. 2010. "Homeland Insecurity: Thinking About CBRN Terrorism." The Journal of the Naval Postgraduate School Center for Homeland Defense and Security. 7, no. 3.

Kondrasuk, Jack N., Dan Bailey, and Matt Sheeks. 2012. Global terrorism: Past present & future. *Journal of American Business Review, Cambridge*. 1, no. 1: 237-243.

Yamin, T. 2013. Chemical and biological weapons: Positions, prospects and trends. *Policy Perspectives* 10, no. 1.

Week 2: CBRN Overview

Course Objective: CO1 and CO2

Assignments: Complete Week 2 Forum

Required Readings:

Asal, Victor H., Ackerman, Gary A., Rethemeyer, R. Karl. 2012. "Connections Can Be Toxic: Terrorist Organizational Factors and the Pursuit of CBRN Weapons." *Studies in Conflict & Terrorism*. Vol 35, issue3.

Bergen, P. 2010. "Reevaluating Al Qaeda's Weapons of Mass Destruction Capabilities." *CTC Sentinel*. Vol 3, Issue 9.

Video: The Weathermen directed by Martin, Jonathan & Wright, Nicolas, in International Terrorism Since 1945 Episode 14 (British Broadcasting Corporation (BBC), (2008)

Week 3: Chemical Terrorism

Course Objective: CO1, CO2, CO3

Assignments: Complete Week 3 Forum

Required Readings:

Central Intelligence Agency. 2007. Iraq's Chemical Warfare Program.

Knights, M. 2010. "The Role and Significance of Signature Attacks in the Iraqi Insurgency" *CTC Sentinel*. Vol 3, Issue 9.

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Jacobs, S. 2013. "A Brief History of Chemical Warfare." National Geographic News.

Yamin, Tughral. 2013. Chemical and biological weapons: Positions, prospects and trends. *Policy Perspectives* 10, no. 1.

Explore: CDC's Chemical Weapons Elimination

Watch: Japanese Sarin Cult directed by Wright, Nicolas, in International Terrorism Since 1945 Episode 17 (British Broadcasting Corporation (BBC), 2008)

Watch: Hazmat Emergency Train Derailment, Livingston Louisiana 1982 -- Chemical train derailment in Louisiana in 1982. 9:32 mins

Week 4: Bioterrorism

Course Objective: CO1, CO2, CO3

Assignments: Complete Week 4 Forum and Midterm Assignment

Required Readings:

Gerstein, D. M. 2010. "Bioterror in the Age of Biotechnology." *Joint Force Quarterly*. 57:2.

Magnuson, S. 2013. "Chemical-Biological Defense Office to Kick Off Dozens of New Programs." *NDIA Business and Technology Magazine*.

Abramson, A.F. 2012. "Biological Weapons: Still a Relevant Threat." Strategy Research Project, United States Army War College.

Kostadinov, R. and Galabova, A. 2010. "Chapter 38: Bioterrorism, History and Threat Assessment." *Journal Of Medical Chemical, Biological & Radiological Defense* 8, 295-303.

Vogel, K.M. 2013. "Intelligent assessment: Putting emerging biotechnology threats in context." *Bulletin Of The Atomic Scientists* 69, no. 1: 43-52.

Wall, Wilson. 2011. "Biological weapons." *Biologist* 58, no. 1: 17-20.

Zaitz, L. 2011. "25 Years after Rajneeshee Commune Collapsed, Truth Spills Out." *The Oregonian*.

Watch:

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The Baader-Meinhof Gang directed by Wright, Nicolas, in International Terrorism Since 1945 Episode 8 (British Broadcasting Corporation (BBC), (2008)

Rajneeshpuram: An Experiment to Provoke God by Hilow, Michael Regis, produced by (Filmmakers Library, 1995)

Week 5: Agroterrorism

Course Objective: CO1, CO2, and CO3

Assignments: Complete Week 5 Forum

Required Readings:

Franz, D.R. 2005. Threats and Risks to U.S. Agriculture: An Overview.

Olson, Dean. 2012. Agroterrorism: Threats to America's economy and food supply. *FBI Law Enforcement Bulletin* 81, no. 2: 1-9.

Petrak, Lynn. 2008. Countering agroterrorism: The FBI perspective. *National Provisioner* 222, no. 8: 54-54,56,58.

Chalk, P. 2003. The Bio-Terrorist Threat to Agricultural Livestock and Produce. Santa Monica, CA: RAND Corporation.

Rushton, J. 2012. The Impact of Foot and Mouth Disease. Royal Veterinary College, University of London.

Ferguson, Neil M., Donnelly, C.A. and Anderson, R.M. 2001. The foot-and-mouth epidemic in great Britain: Pattern of spread and impact of interventions. *Science* 292, no. 5519: 1155-60.

Pehanich, M. 2006. "Secure Your Plant." Food Safety.

Week 6: Radiological Terrorism

Course Objective: CO1, CO2, and CO3

Assignments: Complete Week 6 Forum

Required Readings:

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Medalia, J. 2011. "Dirty Bombs": Technical Background, Attack Prevention and Response, Issues for Congress. Congressional Research Service for Congress.

Acton, J.M., M. B.R., and P.D. Zimmerman. 2007. "Beyond the Dirty Bomb: Re-thinking Radiological Terror." *Survival (00396338)* 49, no. 3: 151-168.

Center for Disease Control and Prevention. 2005. Frequently Asked Questions About Dirty Bombs.

Flynn, A. 2008. "Polonium poisoning-in a cup of tea." The Huddersfield Daily Examiner.

Week 7 – Nuclear Terrorism

Course Objective: CO2 and CO3

Assignments: Complete Week 7 Forum and Progress Assignment

Required Readings:

New Internationalist Magazine. 2008. Nuclear weapons: a history.

Sokova, E., Potter, W.C., Chuen, C. 2007. "Recent Weapons Grade Uranium Smuggling Case: Nuclear Materials are Still on the Loose." CNS, James Martin Center for Nonproliferation Studies.

Oppenheimer, A.R. 2005. The Threat of a Nuclear Attack Exists. *Jane's Terrorism & Security Monitor*.

Mauroni, A. 2012. "Nuclear Terrorism: Are We Prepared?." *Homeland Security Affairs* 8, Article 9.

Huessy, P. 2013. "Nuclear Zero: World Peace or World Chaos." *Family Security Matters*. Issue 8.

Wilner, A.S. 2012. "Apocalypse Soon? Deterring Nuclear Iran and its Terrorist Proxies." *Comparative Strategy*. Vol 31, issue 1.

Explore: "Nuclear Terrorism: The Ultimate Preventable Catastrophe" website

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Explore: Nuclear Weapons Program Worldwide: An Historical Overview

Explore: CDC Nuclear FAQ

Week 8: Future of CBRN Threats

Course Objective: CO4 and CO5

Assignments: Complete Week 8 Forum and Final Assignment

Required Readings:

IHS Global Limited (2013) Chemical world: CBRN defense aims for portability and multipurpose systems.

North Atlantic Treaty Organization. 2007. Future of Chemical, Biological, Radiological, and Nuclear Defense.

Medici, J. 2003. Emergency Response to Incidents Involving Chemical and Biological Warfare Agents. NFPA. Supplement 14.

Thatcher, James J. 2013. Terrorism & safety. *Professional Safety* 58, no. 4: 62-64.

Policies

Please see the [Student Handbook](#) to reference all University policies. Quick links to frequently asked question about policies are listed below.

[Drop/Withdrawal Policy](#)

[Plagiarism Policy](#)

[Extension Process and Policy](#)

[Disability Accommodations](#)

Citation and Reference Style

Attention Please: Students will follow the APA 6 Style as the sole citation and reference style used in written work submitted as part of coursework. See http://www.apus.edu/content/dam/online-library/resources-services/Fuson_2012_APA.pdf.

Late Assignments

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Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. As adults, students, and working professionals, I understand you must manage competing demands on your time. Should you need additional time to complete an assignment, please contact me before the due date so we can discuss the situation and determine an acceptable resolution. Routine submission of late assignments is unacceptable and may result in points deducted from your final course grade.

Netiquette

Online universities promote the advancement of knowledge through positive and constructive debate – both inside and outside the classroom. Forums on the Internet, however, can occasionally degenerate into needless insults and “flaming.” Such activity and the loss of good manners are not acceptable in a university setting – basic academic rules of good behavior and proper “Netiquette” must persist. Remember that you are in a place for the rewards and excitement of learning which does not include descent to personal attacks or student attempts to stifle the Forum of others.

- **Technology Limitations:** While you should feel free to explore the full-range of creative composition in your formal papers, keep e-mail layouts simple. The Sakai classroom may not fully support MIME or HTML encoded messages, which means that bold face, italics, underlining, and a variety of color-coding or other visual effects will not translate in your e-mail messages.
- **Humor Note:** Despite the best of intentions, jokes and especially satire can easily get lost or taken seriously. If you feel the need for humor, you may wish to add “emoticons” to help alert your readers: ;-), :), ☺

Online Library

The Online Library is available to enrolled students and faculty from inside the electronic campus. This is your starting point for access to online books, subscription periodicals, and Web resources that are designed to support your classes and generally not available through search engines on the open Web. In addition, the Online Library provides access to special learning resources, which the University has contracted to assist with your studies. Questions can be directed to librarian@apus.edu.

- **Charles Town Library and Inter Library Loan:** The University maintains a special library with a limited number of supporting

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volumes, collection of our professors' publication, and services to search and borrow research books and articles from other libraries.

- **Electronic Books:** You can use the online library to uncover and download over 50,000 titles, which have been scanned and made available in electronic format.
- **Electronic Journals:** The University provides access to over 12,000 journals, which are available in electronic form and only through limited subscription services.
- **Tutor.com:** AMU and APU Civilian & Coast Guard students are eligible for 10 free hours of tutoring provided by APUS. Tutor.com connects you with a professional tutor online 24/7 to provide help with assignments, studying, test prep, resume writing, and more. Tutor.com is tutoring the way it was meant to be. You get expert tutoring whenever you need help, and you work one-to-one with your tutor in your online classroom on your specific problem until it is done.

Request a Library Guide for your course

(<http://apus.libguides.com/index.php>)

The AMU/APU Library Guides provide access to collections of trusted sites on the Open Web and licensed resources on the Deep Web. The following are specially tailored for academic research at APUS:

- Program Portals contain topical and methodological resources to help launch general research in the degree program. To locate, search by department name, or navigate by school.
- Course Lib-Guides narrow the focus to relevant resources for the corresponding course. To locate, search by class code (e.g., SOCI111), or class name.

If a guide you need is not available yet, please email the APUS Library: librarian@apus.edu.

Selected Bibliography

Bergen, P., Hoffman, B., and Tiedman, K "Assessing the Jihadist Terrorist Threat to America and American Interests" 34, (2011): 65-101.

Vicar, D. and Vicar, R. "CBRN Terrorism: A Contribution To The Analysis of Risks." 2, no. 2 (2011): 20-28.

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Radiation Information Network's "Dirty Bombs"

<http://www.physics.isu.edu/radinf/dirtybomb.htm> (accessed Nov 1, 2012).

CSIS, "Confronting an Uncertain Threat,"

http://csis.org/files/publication/110826_Nelson_%20ConfrontingAnUncertainThreat_Web.pdf (accessed Nov 1, 2012).