

SCST 5344 Unconventional Threats

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Sam Houston State University

Fall Semester 2017

Online Course

Office Hours: By Appointment

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Course Description: This course will focus on a range of threats (some of which exist and some of which are emerging) that impact, or are likely to impact, homeland security in significant ways. These threats will be addressed within the framework of three categories of threats based, respectively, on direct human action, technology, and the environment. Topics to be addressed will include: 1) terrorism, destabilizing crime, mass global migration (human-based threats); 2. cyber threats, engineered biological threats, nuclear warfare, and global supply chain vulnerabilities (technology-based threats); 3: limitations on access to natural resources, climate change, novel diseases, and food security (environmental-based threats). Credit: 3.

Learning Objectives:

- Analyze the nature of human-based threats to homeland security.
- Appraise the nature of technology-based threats to homeland security.
- Distinguish the nature of environmental threats to homeland security.

Required Texts:

Books

- Bruce Hoffman, *Inside Terrorism* (New York: Columbia University Press, 2006).

- Derek S. Reveron and Kathleen A. Mahoney-Norris, *Human Security in a Borderless World* (Boulder, CO: Westview Press, 2011).

Articles and Videos

- Nadav Morag, *Introduction to Terrorism: Typology, Targets and Organizations*, <https://www.youtube.com/watch?v=grAOKnzkffk>
- Alberto Muti and Katherine Tajer, *Cyberspace: An Assessment of Current Threats, Real Consequences and Potential Solutions* (London: Remote Control Group, 2014), available at: <http://remotecontrolproject.org/wp-content/uploads/2014/10/Vertic-Report.pdf>
- Ronald M. Atlas, "Combatting the Threat of Biowarfare and Bioterrorism: Defending Against Biological Weapons is Critical to Global Security," *BioScience*, Vol 49, No. 6 (June 1999): 465-477, <https://academic.oup.com/bioscience/article/49/6/465/229529/Combating-the-Threat-of-Biowarfare-and>
- Daniel Byman, "Understanding the Islamic State: A Review Essay," *International Security*, Vol. 40, No. 4 (Spring 2016): 127-165.
- Neil deGrasse Tyson & Ray Kurzweil, "2029 Singularity Year," *Cosmology Today* <https://www.youtube.com/watch?v=EyFYFjESkWU>
- Oren Etzioni, "Artificial Intelligence will empower us, not exterminate us," TEDx Seattle, Feb. 2, 2017, <https://www.youtube.com/watch?v=H9Ddd1H9uLE>
- The National, *Top Scientists Worried About Artificial Intelligence*, January 19, 2015, <https://www.youtube.com/watch?v=CbNy67HrvOo>
- Akshat Rathi, "This Could Be the Next Weapon of Mass Destruction," *Quartz*, November 20, 2015, <https://qz.com/554337/this-could-be-the-next-weapon-of-mass-destruction/>
- Filippa Lentzos, Catherine Jefferson, and Claire Marris, "The Myths (and Realities) of Synthetic Bioweapons," *Bulletin of the Atomic Scientists*, September 18, 2014, <http://thebulletin.org/myths-and-realities-synthetic-bioweapons7626>
- Steven M. Block, "The Growing Threat of Biological Weapons," *American Scientist*, Vol. 89 (2001): 28-37, https://www.americanscientist.org/sites/americanscientist.org/files/20051220155539_306.pdf

- Magnus Ranstorp and Hans Brun, *Terrorism Learning and Innovation: Lessons from the PIRA in Northern Ireland* (Stockholm: Center for Asymmetric Threat Studies, Swedish National Defence College, 2013), <https://www.fhs.se/Documents/Externwebben/forskning/centrumbildningar/CATS/publikationer/Terrorism%20Learning%20and%20Innovation%20-%20Lessons%20from%20PIRA%20in%20Northern%20Ireland.pdf>
- PBS Newshour, "Who's at the Trigger When the President Calls a Nuclear Strike," April 13, 2016, <https://www.youtube.com/watch?v=IZXUC-nnDlc>
- "Nuclear Weapons: The History," n.d., <https://www.youtube.com/watch?v=QclQGsla3O4>
- *The Economist*, "Warriors and Weather: Climate Change and National Security in America," December 9, 2015, <https://www.youtube.com/watch?v=EectB241kmY>
- *National Geographic*, "Climate Change 101 with Bill Nye," December 2, 2015. <https://www.youtube.com/watch?v=EtW2rrLHs08>
- International Food Policy Research Institute, *2014-2015 Global Food Policy Report* (Washington, D.C.: International Food Policy Research Institute, 2015), <http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/129072>
- Marc Humphries, *Rare Earth Elements: The Global Supply Chain* (Washington, D.C.: Congressional Research Service, 2013), <https://fas.org/sgp/crs/natsec/R41347.pdf>
- Christine Pathemore with Will Rogers, *Sustaining Security: How Natural Resources Influence Security* (Washington, D.C.: Center for a New American Security, 2010), https://s3.amazonaws.com/files.cnas.org/documents/CNAS_Sustaining-Security_Parthemore-Rogers.pdf
- Victoria Metcalf-Hough, *The Migration Crisis? Facts, Challenges and Possible Solutions* (London: ODI, 2015), <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9913.pdf>
- *The Economist*, "Videographic: Migration," <https://www.youtube.com/watch?v=hcoOENLfpUI>
- Nadav Morag, "Border Management: International Experiences," in A. Schiedschlag, ed. *Cross-Disciplinary Perspectives on Homeland and Civil Security: A Research Based Introduction* (New York: Peter Lang, 2015).

- Celina B. Realuyo, *The Future Evolution of Transnational Criminal Organizations and the Threat to US National Security*, Perry Center Occasional Paper (Washington, D.C.: William J. Perry Center for Hemispheric Defense Studies, 2015), <http://chds.dodlive.mil/files/2015/06/pub-OP-realuyo2.pdf>
- Nick Bostrom, "What Happens When Our Computers Get Smarter Than We Are?" <https://www.youtube.com/watch?v=MnT1xgZgkpk>
- BBC Panorama, "How Hackers Steal Your ID," <https://www.youtube.com/watch?v=WyeWwHKglN0&t=25s>
- Wipro Consulting Services, *Supply Chain Vulnerability in Times of Disaster* (Bangalore: Wipro, 2012), http://www.wipro.com/documents/resource-center/Supply_Chain_Vulnerability_in_Times_of_Disaster.pdf
- Cranfield University, *Supply Chain Vulnerability* (Cranfield: Cranfield University, 2002), <https://www.cranfield.ac.uk/~media/images-for-new-website/centres/school-of-management-centres/centre-for-logistics-and-supply-chain-management/old-site-do-not-delete-centre-for-logistics-and-supply-chain-management/vulnerability-report.ashx?la=en>
- Thomson Reuters, "Epidemics and the Risk of Commodities Supply Chain Disruptions," <https://www.youtube.com/watch?v=R32k2b3ETh8>
- DoD News, "America's Nuclear Triad," <https://www.youtube.com/watch?v=ioV7AkIT108>
- "The 1918 Influenza Pandemic in America," <https://www.youtube.com/watch?v=l0juBE-ra3A>
- Homeland Security Council, *The National Strategy for Pandemic Influenza* (Washington, D.C.: Homeland Security Council, 2005), <https://www.cdc.gov/flu/pandemic-resources/pdf/pandemic-influenza-strategy-2005.pdf>

Assignments

This course will involve several types of assignments as well as a requirement to engage in and contribute to online class discussions.

Short Research Paper Assignments

The primary assignments in this course will consist of **three short research papers** comprising 5-7 pages of text (space and a half, and not including the bibliography). Please see the *Paper Writing Guide* for more detailed information on style and format requirements.

The first research paper will focus on human-based threats to homeland security and will include a discussion of the nature of the threat and the implications to homeland security of failing to address the threat.

The second research paper will focus on technology-based threats to homeland security and will include a discussion of the nature of the threat and the implications to homeland security of failing to address the threat.

The third research paper will focus on environmental threats to homeland security and will include a discussion of the nature of the threat and the implications to homeland security of failing to address the threat.

The topics to be chosen for the three short research papers **must be cleared with the professor** prior to conducting the research and writing.

Grading:

- Short Research Paper #1 20%
- Short Research Paper #2 20%
- Short Research Paper #3 20%
- Self-Study Course #1 10%
- Self-Study Course #2 10%
- Weekly Discussion Postings 20%

Late assignments will be marked down 10% each day beyond the due date, though you will still need to hand in the assignment, even if it is more than 10 days late (meaning you get no credit for it) as completion of these assignments is necessary to complete the course.

Instructions for Accessing the Online Self-Study Courses

As part of the requirements for the course, you will be taking two short online self-study courses at the Center for Homeland Defense and Security (CHDS), Naval Postgraduate School.

Go to this link to create an account to gain access to the CHDS program: <https://www.chds.us/c/create-a-chds-account>. You will need to use your Sam Houston email account as SHSU is registered with CHDS as a partner institution.

Once you have created your account, you can apply for access to the self-study courses. The self-study course access request page can be found at: <https://www.chds.us/c/academic-programs/self-study...>

You will be taking the following self-study course (see the schedule below for the completion due dates):

- The Global Jihadi Threat
- Terrorist Financing and State Response

After you complete the learning modules and the quizzes for each learning module, you will need to provide me with an electronic copy of your proof of completion of each course. To do this, you will need to scroll to the bottom of the self-study course section on the page and click on "Record of Course Completion" in the Course Completion box. Once you select this option, you will be able to obtain a copy of your certificates of completion for the self-study courses.

Weekly Assignments

Week 1 - Introductions

Introduce yourself to the class. If you are working in a homeland security-related area, feel free to share this information with the class so that we can have a sense of who has a practitioner background and which sorts of disciplines are represented. For those not yet in the field but interested in careers within the homeland security enterprise, feel free to share any career goals that you may have.

Week 1 – Terrorism: Typology, Ideology, and Organizational Structures and Evolution of Terrorism

This week we will look at challenges involved in defining terrorism, how terrorist groups are organized, the evolution of terrorism, and the role of the media in the terrorism phenomenon. As part of the assigned work for this week, please obtain a CHDS account (see the instructions on the previous page), take the Terrorist Financing and

State Response self-study course, and upload your certificate of completion to Blackboard.

Discussion Questions

1. In the conclusion section to Chapter 1, Hoffman suggests that terrorism can be distinguished from other forms of crime or irregular warfare (i.e., guerrilla warfare, insurgencies, etc.) by five characteristics. Argue against each of those five characteristics being unique to terrorism through the use of examples (properly cited).
2. Briefly describe the interdependent relationship between the media and terrorists as described by Hoffman in chapters 6 and 7.

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Week 2 – Terrorism: Targets and Tools, and Counterterrorism Dilemmas

This week we will look at the way in which terrorist groups operate in terms of their choice of targets and weapons. We will also look at some of the challenges governments have in countering terrorism and its impact on society.

Discussion Questions

1. How, according to Hoffman, have terrorist tactics and tools evolved as traditional forms of terrorism (e.g., PIRA, PLO) have given way to newer forms of terrorism (e.g., Al Qaeda, ISIS)? What were the main factors that brought about these changes?
2. Describe 5-6 counterterrorism strategies and discuss some of their potential advantages and disadvantages.

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Week 3 – Terrorism Case Studies: Jihadist and Islamist Groups

This week we will be discussing the Jihadi threat. Please take the *Global Jihadi Threat Self-Study Course* and submit your certificate of completion. Please also read the Byman article.

Discussion Question

What are the most significant things you have learned from the self-study course and the Byman article?

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Week 4 – Terrorism Case Studies – National Liberation Groups

This week we will focus on the history and evolution of national liberation terrorist groups.

Discussion Questions

What does the Ranstorp and Brun document teach us about the Provisional Irish Republican Army (PIRA), how it operated, which measures were used against it, and how it was eventually brought to the negotiating table? Which conclusions have you drawn from the nature and modus operandi of this national liberation terrorist group?

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Week 5 – Destabilizing Criminal Threats and Global Migration Challenges

This week we will discuss destabilizing criminal threats and global migration challenges. Destabilizing criminal threats are criminal threats that impact homeland security because they are either so widespread or so deep (or both) that they threaten to, or actually do, disrupt economic and social life in a given area and/or negatively impact the ability of government to enforce the law in a given area. In other words, this type of threat is much more socially and economically- impactful than individual acts of criminality (even very serious ones such as murder, rape, etc.) or even gang or organized crime activity that focuses on particular activities but does not attempt to disrupt social and economic stability.

Global migration challenges impact homeland security in the United States and in other countries because large-scale migration flows can impact a country's economy and social and political stability. Large waves of migration often produce a negative reaction from the veteran population (which can lead to hate crimes and terrorism) and migrants can sometimes become radicalized thus posing a threat to their host country and/or its neighbors.

Discussion Questions

1. Briefly describe the nature of the transnational criminal threat to the United States and the various factors that have transformed this type of crime into a significant threat.
2. Briefly discuss the causes and nature of the current global migration problem as well as challenges and options for addressing it.

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

First Research Paper - Due September 21, 2017

Week 6 – Cyber Threats

This week we will look at cybersecurity threats. Please read the following blogs for context [upload](#) [Understanding Cyber Risks](#) and [Types of Cybercrime](#)

Discussion Question

Briefly describe three categories of cyber threats and their respective impacts on security and/or the economy.

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Week 7 – Artificial Intelligence

This week we will look at some of the dangers emanating from the development of both artificial intelligence (AI). AI involves creating computers that have the capacity to learn on their own and potentially evolve into a super-intelligence, far exceeding the intellectual capacity of humanity.

Discussion Questions

1. Where do you stand on the debate as to whether AI will be a boon or a threat to humanity (based on the videos and articles assigned for this week)?
2. Which arguments made in the readings are most compelling and why?

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Week 8 – Supply Chain Vulnerabilities

This week we will discuss the topic of supply chain vulnerability and its potential impact on the national and global economy and on the ability of modern society to function. Most people do not realize the degree to which modern existence is dependent on global supply chains.

Discussion Question

Briefly describe the supply chain for a product of your choice, demonstrate at least two ways in which it can be disrupted, and suggest ways to minimize the potential for those disruptions and to make the supply chain more resilient.

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Week 9 – Nuclear Threats

This week we will focus on the threat posed by nuclear weapons. The catastrophic nature of a nuclear attack on a city, particularly when a strategic nuclear weapon is used, is such that many of the other threats discussed in this course pale in comparison (at least in terms of immediate impact).

Discussion Question

Based on the assigned videos, briefly describe the operation and impact of nuclear weapons.

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Week 10 – Genetic Engineering and Biological Weapons

This week we will focus on the last topic in our section on technological threats, namely the threat of biological weapons and the use of genetic engineering to create even greater biological threats.

Discussion Questions

1. Describe some of the new threats emerging from new technologies and methods to conduct genetic engineering.
2. Describe some of the challenges involved in engineering new bioweapons.
3. Describe some of the measures employed to reduce the threat of bioweapons.

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Second Research Paper - Due October 26, 2017

Week 11 – Access to Natural Resources

This week we will address the first topic in the last category of threats addressed in the course, that of environmentally-based threats. This week we will cover threats relating to the lack of access to natural resources.

Discussion Questions

1. Describe the major uses and applications of Rare Earth Elements.
2. Describe some of the vulnerabilities, for the US, that are a product of reliance on Rare Earth Elements and US policy options to deal with some of these vulnerabilities.
3. Define the concept of “natural security” and briefly assess the Parthemore and Rogers’ recommendations for enhancing it.

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Week 12 – Climate Change

This week we will focus on climate change and its impact on US and global security. Please read the following blog post for context: [upload blog on climate change](#) and watch the assigned videos.

Discussion Questions

1. What is climate change?
2. What impact has climate change been having on the US military?

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Week 13 – Novel Diseases

This week we will discuss the threat of pandemics developing from novel diseases, novel strains of existing viruses or bacteria (such as the influenza virus), or known highly contagious viruses and bacteria (e.g., ebola, smallpox, etc.). Please read the following blog series for background information on the issue of pandemics: [upload pandemic blog series](#), review the assigned readings and watch the film on the 1918 Influenza Pandemic.

Discussion Questions

1. How have the readings and the film changed your view of threats from novel disease strains and pandemics?
2. What is your assessment of the *National Strategy for Pandemic Influenza*?

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Week 14 – Thanksgiving Week – No assignment

Week 15 – Food and Water Security

In the final week of the course, we will look at food and water security as both a global and national concern. The absence of access to food and water not only endangers the lives of many, but usually acts as a driver for immigration flows and the kind of social instability that can lead to failed states.

Discussion Questions

1. What are the latest regional developments (per global region) in terms of food and water security?
2. How does conflict generate food and water insecurity and how can the impact of conflict on food and water security be reduced?

Remember to use evidence in the form of credible sources (academic, journalistic, governmental), properly cited, to support any assertions you make.

Third Research Paper - Due December 6, 2017

Course Schedule, Topics, and Readings

| Date | Topic | Readings |
|-----------------------|---|--|
| Week 1 (8/23-8/30) | <ul style="list-style-type: none">• Terrorism: Typology, Ideology, and Organizational Structures• Historical Evolution of Terrorism and Current Trends | Morag, YouTube Hoffman, Chps 1, 2, 3, 6, 7. |
| Week 2 (8/31-9/6) | <ul style="list-style-type: none">• Terrorism: Targets and Tools• Counterterrorism Dilemmas | Hoffman, Chps. 4, 5, 8, 9. Terrorist Financing and State Response Self-Study Course Morag, Evolution of Terrorism and CT |
| Week 3 (9/7-9/13) | <ul style="list-style-type: none">• Terrorism: Case Studies – Jihadist and Islamist Groups. | Global Jihadi Threat Self-Study Course Byman |
| Week 4 (9/14-9/20) | <ul style="list-style-type: none">• Terrorism: Case Studies – National Liberation Groups. | Ranstorp and Brun |
| Week 5 (9/21-9/27) | <ul style="list-style-type: none">• Destabilizing Criminal Threats.• Global Migration Challenges | Realuyo |

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| | First Research Paper Due First Research Paper Briefings Due | Reveron and Mahoney-Norris, Chps. 1, 2. Metcalf-Hough <i>The Economist</i> Videographic Morag, Border Management. |
| Week 6 (9/28-10/4) | <ul style="list-style-type: none"> Cyber Threats | Muti and Tajer Reveron and Mahoney-Norris, Chp. 7. BBC Panorama |
| Week 7 (10/5-10/11) | <ul style="list-style-type: none"> Artificial Intelligence | deGrasse and Kurzweil. Etzioni. The National. Bostrom. |
| Week 8 (10/12-10/18) | <ul style="list-style-type: none"> Supply Chain Vulnerabilities | Reveron and Mahoney-Norris, Chps. 3, 5. Wipro Consulting Services. Cranfield University. Thomson Reuters. |
| Week 9 (10/19-10/25) | <ul style="list-style-type: none"> Nuclear Threats | PBS Newshour. Nuclear Weapons (the History). DoD News. |
| Week 10 (10/26-11/1) | <ul style="list-style-type: none"> Genetic Engineering Biological Weapons Second Research Paper Due Second Research Paper Briefings Due | Atlas. Rathi. Block. Lentzos, et al. |
| Week 11 (11/2-11/8) | <ul style="list-style-type: none"> Access to Natural Resources | Humphries. Parthemore and Rogers. |
| Week 12 (11/9-11/15) | <ul style="list-style-type: none"> Climate Change | Reveron and Mahoney-Norris, Chp. 4 The Economist, "Warriors and Weather." National Geographic. |
| Week 13 (11/16-11/22) | <ul style="list-style-type: none"> Novel Diseases | Reveron and Mahoney-Norris, Chp. 6. Homeland Security Council. |
| Week 14 (11/23-11/29) | Thanksgiving Week (no classes) | |
| Week 15 (11/30-12/6) | <ul style="list-style-type: none"> Food and Water Security Third Research Paper Due Third Research Paper Briefings Due | International Food Policy Research Institute, Chps 1, 6, 7, 9. |

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<http://www.shsu.edu/dept/academic-affairs/aps/aps-students.html>

ACADEMIC HONESTY POLICIES: Students will be held to the highest standards of academic honesty. Students should review the academic honesty policies of Sam Houston State University available here http://www.shsu.edu/dept/academic-affairs/faculty-handbook/academic_dishonesty.html and should expect enforcement in accordance with the highest standards of those policies. Academic dishonesty includes not only direct copying of the text of others but many ways of excessively relying on the thoughts of others without adding thought of your own; see http://turnitin.com/assets/en_us/media/plagiarism_spectrum.php for different types of academic dishonesty. The instructor reserves the right to check papers against a national anti-plagiarism database. Academic dishonesty can result in punishment ranging from failing the assignment to failing the class to expulsion from the program.

USE OF TELEPHONES AND TEXT MESSAGERS IN ACADEMIC CLASSROOMS AND FACILITIES: Phones today are as powerful (and useful) as laptops were 10 years ago. However, electronic connections to the outside world can be distracting, to the student using them, the other students, and the professor. Please do not let cellphone, text, or even computer use become a distraction. Please see the SHSU policy on electronic use at <http://www.shsu.edu/dept/academic-affairs/aps/aps-curriculum.html>

Any student with a disability that affects his/her academic performance should contact the Office of Services for Students with Disabilities in the SHSU Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786) to request accommodations.