

IRG 378: Capstone Research in International Relations and Global Studies (STE Track)

Topic: The Technology of International Security

Spring 2013

Unique ID: 40130

International Relations and Global Studies (IRG) major
The University of Texas at Austin

Dr. Michael Mosser
Office: Mezes 3.222
Phone: 512.232.7280
Email: mosserm@austin.utexas.edu

Course location: JES A205A
Course time: Th 3:30 – 6:30
Office hours: W 9:00 – 10:00
(and by appointment)

Course concept

While international security is often taught from a ‘big picture’ perspective, it can be argued that much of the actual implementation of international security is driven by technology. This capstone seminar goes beyond theorizing and delves deep into the scientific and technological aspects of international security. It keeps much of the basic understanding of international security but adds a technological focus that will appeal to those students enrolled on the IRG science, technology and the environment (STE) track.

Course objectives:

Designed to appeal to the IRG major on the science, technology, and the environment (STE) track, this capstone seminar will examine in detail the technology that enables international security apparatus to function, as well as the technological challenges faced by international security actors in the 21st century. During the course of this semester, students will be exposed to a more specialized range of topics than the traditional international security capstone course but will maintain a focus on how science and technology affect (and are affected by) international security.

Topics covered in the course will include:

- Information technology and security
- Critical infrastructure protection
- Remote and unmanned combat
- Missile defense systems and space weaponization
- Biosecurity, energy, food, and water security
- Security issues related to climate change

Readings:

There is no required textbook for this course. Rather, each week has a series of readings assigned that are to be read before the class meets each week. Befitting a once-a-week capstone course, the readings are more extensive but still manageable. The average reading load per week is ~100 pages.

Recommended Reading:

- Richard K. Betts, *Conflict after the Cold War* (4th Edition). Prentice Hall, 2012.
- Sean Kay, *Global Security in the Twenty-First Century* (2nd Edition). Rowman & Littlefield, 2012.

Assignments and grading

Your course grade will consist of a paper grade and a discussion/participation grade. A breakdown of the requirements and expectations for each category is below.

Paper: 80%

As this class is a capstone course, the bulk of the grade for the course will consist of a capstone original research paper. Fulfillment of this writing requirement will entail completing a paper of approximately 7,500-8,000 words (approximately 20-25 pages double-spaced, 12-point Times New Roman font). Such a paper should be a thorough treatment of the topic chosen, including a clear thesis statement, logical consistency in the arguments used to show the validity of the thesis, and a clear and concise conclusion that effectively summarizes your argument. It should be appropriately documented with references and citations, and should stand on its own as an individual work of scholarship.

Soon after the beginning of the semester, I will meet with each of you individually to discuss your choice of paper topic and your approach chosen to address it. The paper will comprise the majority of the total grade for the course, but attendance and a presentation of your research count for grades as well.

The paper is divided into the following sections:

- a) Research proposal: Worth 10% of overall grade
- b) Abstract, outline, and list of references: Worth 10% of overall grade.
- c) First draft of paper: Worth 20% of overall grade.
- d) Oral presentation to the group : Worth 20% of overall grade
- e) Final draft of paper: Worth 20% of overall grade.

Paper Format:

Papers are to be formatted according to the Chicago style (15th edition). The best reference for Chicago-style citations is Kate L. Turabian, *A Manual for Writers of Research Papers, Theses, and Dissertations* (7th ed., Chicago: University of Chicago Press). Reference programs such as

Endnote (standalone) or RefWorks (online) are invaluable for collecting and formatting citations in the final draft of the research paper. While a library research day will be scheduled midway through the semester, students are encouraged to go to PCL early and undertake individualized research on using Endnote and RefWorks for proper formatting of citations.

Discussion Leading / Participation / Discussion Questions: 20%

Class discussion in a capstone seminar is more than expected; it is a given. Everyone has his or her own style of discussion, and I do not expect to turn those who prefer not to speak often in class into debate champions. Nevertheless, I do expect that each of you will at some point in the semester lead a course discussion on the topic of your choosing. You will have your classmates' questions to serve as a point of departure (see below), which you may use as you wish. There will be a sign-up sheet distributed at the first and second class sessions for you to sign up to lead a discussion. The discussion leadership and general course participation will comprise 10% of your course grade.

Because this is a capstone course, it is expected that you will have already absorbed the importance of class attendance. I strongly encourage you to attend every class and be prepared for lively and stimulating discussion. To that end, I will require that each of you prepare two discussion questions for the upcoming class to submit to the discussion leader. These should be drawn from the readings and should reflect any questions, comments, or cries of outrage you may have regarding the arguments set forth by the authors. These discussion questions will not be graded individually, but together will count for 10% of your course grade. They most definitely will help you get the most from the class. I will prepare the first set of discussion questions as a template for future assignments.

Important Information

Plagiarism / academic misconduct:

Don't do it. Minimum penalties for cheating are zeros on quizzes or exams where the cheating takes place, and a grade of F on a paper that has been plagiarized. Questions about what constitutes academic misconduct should be brought to my attention.

Undergraduate Writing Center:

Because the bulk of the work in this course revolves around researching and writing a significant paper, the instructor strongly encourages all those enrolled to make use of the Undergraduate Writing Center, FAC 211, 471-6222: <http://www.uwc.utexas.edu/>). The Undergraduate Writing Center offers free, individualized, expert help with writing for any UT undergraduate, by appointment or on a drop-in basis. Any undergraduate enrolled in a course at UT can visit the UWC for assistance with any writing project. They work with students from every department on campus, for both academic and non-academic writing. Their services are not just for writing with "problems." Getting feedback from an informed audience is a normal part of a successful writing project. Consultants help students develop strategies to improve their writing. The assistance they provide is intended to foster independence. Each student

determines how to use the consultant's advice. The consultants are trained to help you work on your writing in ways that preserve the integrity of your work.

University of Texas Honor Code:

The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community. Any student found guilty of scholastic dishonesty may receive an "F" in the course and be remanded to the appropriate University of Texas authorities for disciplinary action. For more information, view Student Judicial Services at <http://deanofstudents.utexas.edu/sjs>.

Writing Flag:

This course carries the Writing Flag. Writing Flag courses are designed to give students experience with writing in an academic discipline. In this class, you can expect to write regularly during the semester, complete substantial writing projects, and receive feedback from your instructor to help you improve your writing. You will also have the opportunity to revise one or more assignments, and you may be asked to read and discuss your peers' work. You should therefore expect a substantial portion of your grade to come from your written work. Writing Flag classes meet the Core Communications objectives of Critical Thinking, Communication, Teamwork, and Personal Responsibility, established by the Texas Higher Education Coordinating Board.

Religious Holidays:

According to UT-Austin policy, students must notify the instructor of an impending absence at least 14 days prior to the date of observance of a religious holy day. If a student must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, the student will be given an opportunity to complete the missed work within a reasonable time after the absence.

Student Privacy:

The Family Educational Rights and Privacy Act (FERPA) requires that student privacy be preserved. Thus the posting of grades, even by the last four digits of the social security number, is forbidden. All communication will remain between the instructor and the student, and the instructor will not be able to share details of the student's performance with parents, spouses, or any others.

Documented Disability Statement:

The University of Texas will make reasonable accommodations for students with documented disabilities. Any student with a documented disability who requires academic accommodations should contact Services for Students with Disabilities at 471-6259 (voice) or 1-866-329-3986 (Video Phone) as soon as possible to request an official letter outlining authorized accommodations.

Emergency Evacuation Policy:

In the event of a fire or other emergency, it may be necessary to evacuate a building rapidly. Upon the activation of a fire alarm or the announcement of an emergency in a university building, all occupants of the building are required to evacuate and assemble outside. Once evacuated, no one may re-enter the building without instruction to do so from the Austin Fire Department, University of Texas at Austin Police Department, or Fire Prevention Services office. Students should familiarize themselves with all the exit doors of each room and building they occupy at the university, and should remember that the nearest exit routes may not be the same as the way they typically enter buildings. Students requiring assistance in evacuation shall inform their instructors in writing during the first week of class. Information regarding emergency evacuation routes and emergency procedures can be found at <http://www.utexas.edu/emergency>.

Course calendar

17 January

Topic:

- The Role of Technology in International Security

Readings:

- National Academies, "[Making the Nation Safer: The Role of Science and Technology in Countering Terrorism](#)," Committee on Science and Technology for Countering Terrorism, Lewis M. Branscomb and Richard Klausner, co-chairs (Washington, DC: National Academies Press, 2002).
 - Read Executive Summary

24 January

Topic:

- Warfighting Technology for the 21st century: Drones, RPVs, UCAVs

Readings:

- Vogel, Ryan. "Drone Warfare and the Law of Armed Combat" [Denver Journal of International Law and Policy](#), Vol. 39, No. 1, 2011
- Anderson, Kenneth, Targeted Killing and Drone Warfare: How We Came to Debate Whether There is a 'Legal Geography of War' (April 26, 2011). FUTURE CHALLENGES IN NATIONAL SECURITY AND LAW, Peter Berkowitz, ed., Hoover Institution, Stanford University, Forthcoming; American University, WCL Research Paper No. 2011-16. Available at SSRN: <http://ssrn.com/abstract=1824783>
- United States Air Force, "[The U.S. Air Force Remotely Piloted Aircraft and Unmanned Aerial Vehicle Strategic Vision](#)" (2005)

- Maj. William K. Lewis, "[UCAV: The Next-generation Air Superiority Fighter?](#)" SAAS Thesis (2002).
- Air Marshall Raghu Rajan (India), "[Are the Days of the Manned Combat Aircraft Numbered?](#)" *Indian Strategic Studies* March 2012

31 January

Topic:

- Cyber Warfare

Readings:

- Zetter, Kim. 2011. How Digital Detectives Deciphered Stuxnet, the Most Menacing Malware in History. || *Wired*, July 11.
- United States Department of the Army. 2010. *Cyberspace Operations Concept Capability Plan: 2016–2028* (February 22).
- Libicki, Martin C. 2011. —Cyberwar as a Confidence Game.|| *Strategic Studies Quarterly*, vol. 5, no. 1 (spring): 132–46.
- Porche III, Isaac R., Jerry Solinger and Shawn McKay, "[An Enemy without Boundaries](#)" *US Naval Institute Proceedings Magazine* 138:10 (October 2012).
- Kelly, Terrence and Jeffrey Hunker, "[Cyber Policy: Institutional Struggle in a Transformed World.](#)" *I/S: A Journal of Law and Policy for the Information Society* 8:2 (2012)

7 February

Topic:

- How do we protect critical infrastructure?

Readings:

- Philip Auerwald et al., "[The Challenge of Protecting Critical Infrastructure](#)" Wharton School of Business Risk Management and Decision Processes Center Working Paper 05-11 (October 2005).
- Department of Homeland Security (DHS), "[National Infrastructure Protection Plan](#)" (2009)
 - Read Executive Summary and sections 1 through 3

Requirements:

- Paper proposals due today

14 February

Topic:

- Missile defense and space weaponization

Readings:

- MacDonald, Bruce W. 2008. China, Space Weapons, and U.S. Security, Council Special Report No. 38. New York: Council on Foreign Relations.
- US Department of Defense, Missile Defense Agency (DOD MDA) "[The Ballistic Missile Defense System](#)"
 - Examine other aspects of website as appropriate

21 February

Topic:

- Biosecurity and climate change security issues

Readings:

- Greenwalt, Robert, Wilthea Hubbard, and Ellen Raber, "[The national framework and consequence management guidance following a biological attack](#)" Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science. 9.3 (Sept. 2011): p271.
- The White House, Office of Science and Technology Policy, "[Biosecurity](#)"
- The United Nations, "[The Biological Weapons Convention](#)"
- Jon Barnett, "[Security and Climate Change](#)," Tyndall Center for Climate Change Research Working Paper 7 (October 2001)
- Jon Barnett, "[Climate Change, human security and violent conflict](#)," Political Geography
- [Volume 26, Issue 6](#), August 2007, Pages 639–655
-

28 February

Topic:

- Library instruction
 - Students will report to PCH for meeting with Library research staff

7 March

Topic:

- Individual research week / meetings with instructor

14 March

Topic:

- No class: Spring Break

21 March

Topic:

- Individual research week / meetings with instructor

28 March

Topic:

- Individual research week / meetings with instructor

4 April

Topic:

- Oral presentations (Group I)

11 April

Topic:

- Oral presentations (Group II)

18 April

Topic:

- Oral presentations (Group III)

25 April

Topic:

- Oral presentations (Group IV)

2 May

Topic:

- Course wrap-up
- **Final papers due today**