INTA 4803/8803
Cyber Policy and Strategy

Logistics:
Spring 2023
3 Credits
T, Th 3-4:15pm
Ivan Allen College/Habersham G-17

Office:
Main:
Systems Engineering Research Division
GTRI CCRF B-11
2001 Dixie Ave
Smyrna, GA 30038
Phone: 404-407-8514
Phone appointments only*
courtney.crooks@gtri.gatech.edu

Prerequisites:
None

Instructor:
Courtney Crooks, PhD
Principal Research Scientist. GTRI
Adjunct Instructor, INTA, SOP

Campus Location: Habersham Basement
Computer Lab/Student Lounge
Office Hours: 1-3pm Tuesdays

Materials:


Overview:
This class intends to give students a broad overview of the nature of international policy and national security aspects of cyberspace anchored in a social science perspective. This includes, but is not limited to, international agreements and domestic policies pertaining to cyberspace, cyber terrorism and cybercrime, cyber-enabled information warfare, government response to cyberattacks, and cyber psychological aspects of using emerging cyber technology. Students should take away from the class an appreciation for the responsibilities and complexity involved in cybersecurity policymaking.

Learning Objectives:
1) Describe the 10-layer OSI model and discern when policies cover specific parts of it.
2) Identify key stakeholders in the US government in cyber policy and cyber event response.
3) Compare and contrast aspects of acts of war, acts of aggression, intelligence activities, terrorism, and crime, in cyberspace.
4) Discuss the impact of cyber policy and technology on human and social systems.
5) Demonstrate briefing skills and focus on clearly conveying complex concepts and issues in simple ways.
6) Produce concise writing in a series of policy memos that will force strategic editing and word economy.

Class Requirements:
1) Attendance & Participation (10%)
2) Policy Memos and Oral Briefings (45%)
   a. Written summary on assigned topics for review, 2-3pg. each (3)
   b. Present summary and oral arguments on assigned memo topics (3)
3) Final Paper (45%)
   a. Advance one-page paper summary with sample references (10%)
   b. Final written paper product (25%) (different requirements for 4803 vs. 8803)
   c. Final paper presentation (10%)

Assignments:
All assignments will be due electronically by NOON on Fridays.
Assignments and guidance will be distributed separately and in class.

Below is the grading scale for this course (no plus or minus grades will be given). A grade of C or higher is required to PASS (for P/F students).

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Attendance & Participation:
You are expected to be in class every day, on time. If you know of a potential conflict that will prevent you from attending class, please make arrangements with a classmate to go over missed content or see the instructor. You will be responsible for any missed content.

Technology Requirement:
You are REQUIRED to have and maintain access to Canvas via your Georgia Tech sign-on information. Our general course materials and grades will be available on Canvas. If you have problems with registration (due to nonpayment, etc.) you may be dropped from Canvas. It is imperative that you be proactive to avoid this situation.

Reasonable use of electronic devices is allowed in class. Please turn your mobile phones and laptop volumes to silent/vibrate mode while in class, so you do not disturb others or the lecture. Please do not take videos/pictures during lecture (such as pictures of slides), or flagrantly text during lecture. If you have an emergency and need to step out of lecture to use your phone, please just quietly exit your seat and step outside of the room to address your situation.
Academic Integrity:
All students are assumed to have read the Code of Student Conduct and consented to be bound by it. Violations of these rules of conduct are taken extremely seriously, will be reported per applicable Georgia Tech policies, and will result in a failing grade for the course. Specific violations include (but are not limited to):

• Use or provision of prohibited assistance during quizzes or exams
• Sharing of outside assignments such as research reports or papers
• Plagiarism- this includes both the use of the words and ideas without attribution (e.g., by presenting online materials as if they were your own work)

For more information on the Honor Code and ethics at Georgia Tech, please visit:

Office of Student Integrity: http://osi.gatech.edu/

Georgia Tech Policy Library: https://policylibrary.gatech.edu/student-affairs/academic-honor-code

Special Accommodations:
If you require special learning/testing accommodations, please inform me at the beginning of the semester so that we can discuss and complete any necessary paperwork, and coordinate with Student Disability Services to ensure these accommodations are approved and documented officially. Georgia Tech complies with regulations of the Americans with Disabilities Act of 1990 and offers accommodations to students with disabilities. If you are in need of a classroom accommodation, please make an appointment with the Office of Disability Services to discuss the appropriate procedures.
www.disabilityservices.gatech.edu

Student Support Services:
In your time at Georgia Tech, you may find yourself in need of support. Below you will find some resources to support you both as a student and as a person.

• The Office of the Dean of Students: http://studentlife.gatech.edu/content/services; 404-894-6367; Smithgall Student Services Building 2nd floor
  Can assist with a variety of Georgia Tech policies and student needs including reviewing approved absence requests.

• Georgia Tech Counseling Center: http://counseling.gatech.edu; 404-894-2575; Smithgall Student Services Building 2nd floor
  Services include short-term individual counseling, group counseling, couples counseling, testing and assessment, referral services, and crisis intervention. Their website also includes links to state and national resources. Students in crisis may walk in during business hours (8am-5pm, Monday through Friday) or contact the counselor on call after hours at 404-894-2204.
• Students’ Temporary Assistance and Resources (STAR):
  http://studentlife.gatech.edu/content/need-help
  Can assist with interview clothing, food, and housing needs.

• Stamps Health Services: https://health.gatech.edu; 404-894-1420
  Primary care, pharmacy, women’s health, psychiatry, immunization and allergy, health
  promotion, and nutrition

THIS SYLLABUS IS A LIVING DOCUMENT AND IS SUBJECT TO
CHANGES
THROUGHOUT THE SEMESTER
Course Calendar:

FIRST DAY OF CLASSES: JANUARY 6, 2020
SPRING BREAK: MARCH 16-20, 2020 (NO CLASS)
LAST DAY OF CLASS: APRIL 20-21, 2020
FINAL EXAM WEEK: APRIL 23-30, 2020
LAST DAY OF SEMESTER: MAY 2, 2020
GRADE SUBMISSION DEADLINE: MAY 4, 2020

WEEK 1 – Jan 6 – 10     Definitions & Overview

January 10, 2020 = Last day to drop classes without penalty

- Introductions & housekeeping
- Scope of the class & organization
- Course content overview
- What is Cyberspace?
- Cybersecurity framework: Computer science vocabulary & OSI Model review

Required Readings:
1) Carr, pp. 1-15
2) Singer & Friedman, pp. 12-25, 31-34
3) USSTRATCOM JFCC-NWJS (January 5, 2009). The cyber warfare lexicon: A language to support the development, testing, planning, and employment of cyber weapons and other modern warfare capabilities. Retrieved from https://publicintelligence.net/cyber-warfare-lexicon/
4) Swire (2018)

WEEK 2 – Jan 13 – 17     Who Governs Cyberspace?

Required Readings:
1) Carr, pp. 263-271, 31-43
2) Singer & Friedman, pp. 26-30

Optional Recommended Readings:

WEEK 3 – Jan 20 – 24     Threats in Cyberspace

Required Readings:
1) Carr, pp. 141-159
2) Singer & Friedman, pp. 31-66

Optional Recommended Readings:
4) Statement for the Record Worldwide Threat Assessment of the US Intelligence Community (January 29, 2019).

WEEK 4 – Jan 27 – Jan 31  Privacy vs. Security

***First policy memo due at NOON on Friday, January 31 (TOPIC TBD).***

Required Readings:
1) Singer & Friedman, pp. 106-110, 166-215

Optional Recommended Readings:

WEEK 5 – Feb 3 – 7  Cybercrime vs. Cyber Terrorism

Required Readings:
1) Carr, pp. 15-30, 89-102
2) Singer & Friedman, pp. 85-105

Optional Recommended Readings:
7) Zuckerberg: Terrorist propaganda allowed under First Amendment, but no one wants it on platform (April 11, 2018) [video]. https://www.cnbc.com/video/2018/04/11/zuckerberg.html

WEEK 6 – Feb 10 – 14  Cyber Psychology and Emerging Cyber Technology
Required Readings:
1) Carr, pp. 15-30, 89-102
2) Singer & Friedman, pp. 85-105

Optional Recommended Readings:

WEEK 7 – Feb 17 – 21 Intelligence Operations in Cyberspace

Required Readings:
1) Carr, pp. 77-88
WEEK 8 – Feb 24 – Feb 28  Cyber Warfare

***Second policy memo due at NOON on Friday, February 28 (TOPIC TBD).***

**Required Readings:**
1) Carr, pp. 31-75, 92-102
2) Singer & Friedman, pp. 110-159

**Optional Recommended Readings:**

WEEK 9 – Mar 2 – 6  Deterrence in Cyberspace

**Required Readings:**


**WEEK 10 – Mar 9 – 13  Active Defense Strategies**

**Required Readings:**

1) Carr, pp. 179-188, 194-198, 273-283


**Mar 16 - 20 = SPRING BREAK (NO CLASS)**

**WEEK 11 – Mar 23 – 27  The Attribution Problem**

***Third policy memo due at NOON on Friday, March 27 (TOPIC TBD).***

**Required Readings:**

1) Carr, pp. 131-140


**Optional Recommended Readings:**


**WEEK 12 – Mar 30 – Apr 3**  
**Nation-State Capabilities**

**Required Readings:**
1) Carr, pp. 243-263
2) Singer & Friedman, pp. 133-165

**Optional Recommended Readings:**

**WEEK 13 – Apr 6 – 10**  
**International Community**

**Required Readings:**

**Optional Recommended Readings:**

**WEEK 14 – Apr 13 – 17**  
**Cyber Event Response**
Final Presentations (10 minutes each)

Required Readings:
1) Carr, pp. 45 – 75, 191-202
2) Singer & Friedman, pp. 241-246

Optional Recommended Readings:

WEEK 15 – Apr 20 – 21   Wrap-up & Review

- Final Presentations (10 minutes each)
- Tuesday, April 21 = Final Class
- No Final Exam
- **Final Papers Due Friday, April 24, 2020, at NOON.**

Course Bibliography:


Additional Readings:


USSTRATCOM JFCC-NWJS (January 5, 2009). The cyber warfare lexicon: A language to support the development, testing, planning, and employment of cyber weapons and other modern warfare capabilities. Retrieved from https://publicintelligence.net/cyber-warfare-lexicon/