INR 4764 Cyber-warfare Policy

Department of Political Science

College of Arts and Sciences, University of Central Florida

COURSE SYLLABUS

Instructor:	Ted Reynolds	Term:	Fall 2018
Office:	PH 206B	Class Meeting Days:	Wednesday
Phone:	407-823-2608	Class Meeting Hours:	6-8:50pm
E-Mail:	teddy.reynolds@ucf.edu	Class Location:	CB1-318
Office Hours:	Tuesday 10am-noon and Wednesday 2-4pm		

Cyber-Warfare Policy

An examination of how nations, groups, and individuals throughout the world use Internet/cyber-attacks to gain military, political, and economic gains over their adversaries. Specific focus will be given to understanding the role various states and hacker groups play in conducting cyber-attacks and cyber espionage. Further, this class will examine current cyber policy both internationally and domestically, the challenges related to current policy and proposed policy changes, and wrestle with the question of whether cyber-attacks can/will be considered 'acts of war' and why. Central to the discussion will be considering the true nature of the threat posed by these various attacks and whether cyber policies can offer reasonable and reliable protections without becoming overly intrusive to private citizens.

Objectives:

There are several objectives to this class. First is to familiarize you with the various elements of cyber-warfare, cyber-terrorism, and cybercrimes including those that are used to finance extremist/terrorist operations. This will include examining the states, groups, and individuals who engage in these activities and the impact they have on individual, industry, and state security. Second is to engage in a substantive discussion regarding the future of these cyber activities and how the governments should respond both politically and possibly militarily. Finally, all of the content within this course as well as supplemental material will be used to consider the overarching question of whether cyber-attacks should be considered an act of war, what the appropriate response should be, and whether the international community will be able to implement effective cyber policy as a deterrent to prevent these attacks.

Textbooks:

Jeffrey Carr. 2012. *Inside Cyberwarfare: Mapping the Cyber Underworld*. 2nd Edition. O'Rielly Media Inc. **ISBN: 978-1-449-31004-2**

P.W. Singer and Allan Friedman. 2014. *Cybersecurity and Cyberwar: What Everyone Needs to Know*. Oxford University Press. **ISBN 978-0-19-991811-9**

Cyberwar: Law and Ethics for Virtual Conflict. 2015. Edited by, Jens David Ohlin, Kevin Govern, and Claire Finkelstein. Oxford University Press. **ISBN: 978-0-19-871750-8 (Link will be provided to free online copy via UCF Library)**

Supplementary (Optional) Texts and Materials: Additional online readings will be provided during the term to support discussion.

Basis for Final Grade

Assessment	Percent of Final Grade
Attendance/Participation	10%
Midterm	20%
Quizzes	20%
Paper	20%
Group presentation	10%
Final Exam	20%
Total	100%

Grading Scale (%)		
90-100		A
87 - 89		B+
80 - 86		B
77 - 79		C+
70 - 76		C
67 - 69		D+
60 - 66		D
0 - 59		F

The group research paper topic will be submitted to and approved by the instructor culminating in a 25 page paper (with an executive summary) to be submitted at the end of the term. The focus of the paper will be directly related to an important aspect of cyberwarfare and offer an in-depth examination and analysis of the individual research area chosen. The presentation will be focused on the research topic being covered in the paper.
Midterm and final exams will be essay exams.

Quizzes will be administered in class on the days indicated, focusing on terminology and important concepts.

Late Work Policy:
There are no make-ups for any graded assessments. Papers/exams turned in late will be assessed a penalty: a full letter grade (10 points) per day late. Writing assignments will not be accepted if overdue by more than four calendar days. There are NO makeups on missed quizzes.

Grades of "Incomplete":
The current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. Your instructor is the final authority on whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will automatically be recorded as an "F" on your transcript.

Disability Access:
The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students with disabilities who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met with the professor to request accommodations. Students who need accommodations must be registered with Student Disability Services, Student Resource

Center Room 132, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.

Attendance Policy: Attendance is mandatory and unauthorized or unexcused absences will result in a reduction of the final grade.
Professionalism Policy:
Per university policy and classroom etiquette; mobile phones, iPods, *etc*. **must be silenced** during all classroom and lab lectures. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, *etc*., and have been warned will be removed from the class and may suffer a reduction in their final class grade.

Rules of Conduct
Students should familiarize themselves with UCF's Rules of Conduct. According to Section 1, "Academic Misconduct," students are prohibited from engaging in
Unauthorized assistance: Using or attempting to use unauthorized materials, information or study aids in any academic exercise unless specifically authorized by the instructor of record. The unauthorized possession of examination or course-related material also constitutes cheating. Communication to another through written, visual, electronic, or oral means: The presentation of material which has not been studied or learned, but rather was obtained through someone else's efforts and used as part of an examination, course assignment, or project.
Commercial Use of Academic Material: Selling of course material to another person, student, and/or uploading course material to a third-party vendor without authorization or without the express written permission of the university and the instructor. Course materials include but are not limited to class notes, Instructor's PowerPoints, course syllabi, tests, quizzes, labs, instruction sheets, homework, study guides, handouts, etc.
Falsifying or misrepresenting the student's own academic work.
Plagiarism: Using or appropriating another's work without any indication of the source, thereby attempting to convey the impression that such work is the student's own.
Multiple Submissions: Submitting the same academic work for credit more than once without the express written permission of the instructor.
Helping another violate academic behavior standards.

For more information about Academic Integrity, students may consult The Center for Academic Integrity.
For more information about plagiarism and misuse of sources, see "Defining and Avoiding **Plagiarism**: The WPA Statement on Best Practices."
Responses to Academic Dishonesty, Plagiarism, or Cheating
Students should also familiarize themselves with the procedures for academic misconduct in UCF's student handbook, **The Golden Rule**. UCF faculty members have a responsibility for students' education and the value of a UCF degree, and so seek to prevent unethical behavior and when necessary respond to academic misconduct. Penalties can include a failing grade in an assignment or in the course, suspension or expulsion from the university, and/or a "Z Designation" on a student's official transcript indicating academic dishonesty, where the final grade for this course will be preceded by the letter Z.

Emergencies on campus are rare, but if one should arise during class, everyone needs to work together. Students should be aware of their surroundings and familiar with some basic safety and security concepts.
In case of an emergency, dial 911 for assistance.
Every UCF classroom contains an emergency procedure guide posted on a wall near the door. Students should make a note of the guide's physical location and review the online version at http://emergency.ucf.edu/emergency_guide.html.
Students should know the evacuation routes from each of their classrooms and have a plan for finding safety in case of an emergency.
If there is a medical emergency during class, students may need to access a first-aid kit or AED (Automated External Defibrillator). To learn where those are located, see http://www.ehs.ucf.edu/workplacesafety.html.
To stay informed about emergency situations, students can sign up to receive UCF text alerts by going to ucf.edu and logging in. Click on "Student Self Service" located on the left side of the screen in the toolbar, scroll down to the blue "Personal Information" heading on the Student Center screen, click on "UCF Alert", fill out the information, including e-mail address, cell phone number, and cell phone provider, click "Apply" to save the changes, and then click "OK."
Students with special needs related to emergency situations should speak with their instructors outside of class.
To learn about how to manage an active-shooter situation on campus or elsewhere, consider viewing the UCF video.

Authorized event or activity notification
Students who represent the university in an authorized event or activity (for example, student-athletes) and who are unable to meet a course deadline due to a conflict with that event must provide the instructor with documentation in advance to arrange a make-up. No penalty will be applied. For more information, see the UCF policy.

Religious observance notification
Students must notify their instructor in advance if they intend to miss class for a religious observance. For more information, see the UCF policy.

Active duty military and/or National Guard
Students who are deployed active duty military and/or National Guard personnel and require accommodation should contact their instructors as soon as possible after the semester begins and/or after they receive notification of deployment to make related arrangements.

University Writing Center:
The University Writing Center (UWC) is a free resource for UCF undergraduates and graduates. At the UWC, a trained writing consultant will work individually with you on anything you're writing (in or out of class), at any point in the writing process from brainstorming to editing. Appointments are recommended, but not required. For more information or to make an appointment, visit the UWC website at http://www.uwc.ucf.edu, stop by MOD 608, or call 407.823.2197.

INR 4764-Cyberwarfare Policy
Schedule:

Date	Work to be completed prior to class	Topic for Discussion
8/22	First Day – No assignment	Introduction, syllabus, expectations
8/29	Singer- Intro+Part I (all) Carr- Foreword/Preface, Ch. 1	Opening discussion: What is cyber?
9/5	Singer- 67-113 Carr- Ch. 2	**Quiz** Hacktivism/cyberterrorism The Internet of Things
9/12	Singer- 114-132(3) Carr- Ch. 3 Ohlin- Part I	**Submit paper topics** Legal perspective on cyber Doctrinal discussion
9/19	Singer- 133-165 Carr- Ch. 4 Ohlin- Part II	Military and cyberwarfare Cyber as acts of war
9/26	Carr- Ch. 5 Ohlin- Ch. 7-9	**Quiz** Cyber-espionage
10/3	Mandiant Report (link to be provided)	Submit annotated bibliography Threat / State sponsored hacking
10/10	Stuxnet papers (links will be provided)	**Receive midterm** The first cyber weapon!
10/17	Video	**Turn in Midterm**
10/24	Carr- Ch.6 Rand Report (Dark Web)	Non State hackers The Dark Web **First presentations**
10/31	Carr- Ch. 7-9 Ohlin- Ch. 10	**Quiz** Evidence and Attribution **Presentations**
11/7	Carr- Ch. 10-12 Ohlin- Ch. 11	Cyberweapons and Military Doctrine Defense vs. Offense **Presentations**
11/14	Carr 13-14 Singer- Part III (all)	**Quiz** Future Policy **Presentations**
11/21	NO CLASS	NO CLASS
11/28	Singer - Conclusions	**Presentations** **Final Paper Due** Receive Final Exam
12/5	**FINAL EXAM DUE**	**FINAL EXAM DUE: 7-PM**

***** Note: The Schedule is subject to revision*****