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 2016
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:	CB1-0120
Office Hours:	Wednesday 2-4pm or by appointment		

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**

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
ttendance/Participation	20%
Midterm	20%
Quizzes	20%
Paper	20%
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 research paper topic will be submitted to and approved by the instructor culminating in a 10 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.
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 of 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.

Academic Conduct Policy:
Academic dishonesty in any form will not be tolerated. If you are uncertain as to what constitutes academic dishonesty, please consult The Golden Rule, the University of Central Florida's Student Handbook (http://www.goldenrule.sdes.ucf.edu/) for further details. As in all University courses, The Golden Rule Rules of Conduct will be applied. Violations of these rules will result in a record of the infraction being placed in your file and receiving a zero on the work in question AT A MINIMUM. At the instructor's discretion, you may also receive a failing grade for the course. Confirmation of such incidents can also result in expulsion from the University

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.

Schedule:

Date	Work to be completed prior to class	Topic for Discussion
8/24	First Day – No assignment	Introduction, syllabus, expectations
8/31	Singer- Intro+Part I (all) Carr- Foreword/Preface, Ch. 1	Opening discussion: What is cyber?
9/7	Singer- 67-113 Carr- Ch. 2	**Quiz** Hacktivism/cyberterrorism The Internet of Things
9/14	Singer- 114-132(3) Carr- Ch. 3 Ohlin- Part I	**Submit paper topics** Legal perspective on cyber Doctrinal discussion
9/21	Singer- 133-165 Carr- Ch. 4 Ohlin- Part II	Military and cyberwarfare Cyber as acts of war
9/28	Carr- Ch. 5 Ohlin- Ch. 7-9	**Quiz** Cyber-espionage
10/5	Mandiant Report (link to be provided)	Submit annotated bibliography Threat / State sponsored hacking
10/12	Stuxnet papers (links will be provided)	Receive midterm The first cyber weapon!
10/19	Video	**Turn in Midterm**
10/26	Carr- Ch.6 Rand Report (Dark Web)	Non State hackers The Dark Web
11/2	Carr- Ch. 7-9 Ohlin- Ch. 10	**Quiz** Evidence and Attribution
11/9	Carr- Ch. 10-12 Ohlin- Ch. 11	Cyberweapons and Military Doctrine Defense vs. Offense
11/16	Carr 13-14 Singer- Part III (all)	**Quiz** Future Policy
11/23	NO CLASS	NO CLASS
11/30	Singer - Conclusions	**Final Paper Due** Receive Final Exam
12/7	**FINAL EXAM DUE**	**FINAL EXAM DUE: 7-PM**

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