

Cyber Warfare Syllabus

Instructor:

Office:

Email:

Phone:

Office Hours:

Course Start Date August 25, 2015

Course End Date December 3, 2015

Course Description: This is a three (3) credit course. This course provides students with knowledge of cyber warfare history, actors, types, rules, causes, strategies, and outcomes.

Instruction Method:

Coursework will include classroom lectures, and exams along with discussion using real-world examples and scenarios. You are expected to take an active role in your learning. Discussions and writing assignments play significant roles in the conduct of the course.

Course Learning Objectives

Course Student Learning Outcomes	How students will practice each outcome in this Course	How student achievement of each outcome will be assessed in this Course
Students will categorize the key players in cyber warfare	Discussion, writing assignments and other homework.	Writing Assignments, Midterm Exam and Final Exam
Students will compare and contrast different types and goals of cyber warfare.	Discussion, writing assignments and other homework.	Writing Assignments, Midterm Exam and Final Exam
Students will categorize cyber warfare strategies and outcomes.	Discussion, writing assignments and other homework.	Writing Assignments, Midterm Exam and Final Exam
Students will analyze and differentiate the use of cyber warfare in traditional and nontraditional global conflicts.	Discussion, writing assignments and other homework.	Writing Assignments, Midterm Exam and Final Exam
Students will demonstrate the	Discussion, writing	Writing

ability to understand the background and purposes of cyber warfare.	assignments and other homework.	Assignments, Midterm Exam and Final Exam
Students will demonstrate an understanding of how hactivist and other non-nation-state have changed the nature of cyber warfare.	Discussion, writing assignments and other homework.	Writing Assignments, Midterm Exam and Final Exam

Required Textbook and Materials:

Cyber War. Clarke (April, 10 2012). Harper Collins Publishers, ISBN13: 978-0-06-196224-0

Inside Cyber Warfare. Carr (December, 31 2011). O'Reilly, ISBN13: 978-1-4493-2

Topics and Methodologies:

The following outline delineates the tentative class schedule with topics to be addressed during the course. Textbook reading assignments are listed below. Additional reading and other assignment are listed in Blackboard.

Week/Reading Assignment	Lecture Topics
1. Carr pp. 1-14, 15-25, 31-39 and Clarke pp. ix, pp 1-32	Defining is Cyber Warfare
2. Carr pp. 45-74, 77-86, 89-99, 103 – 119 and Clarke pp. 33-68	Cyber Warfare Threat Actors
3. Carr pp. 121-129, 131-140, 141-152, and Clarke 69-102, 291-276	Attribution, Crime, Malware
4. Carr pp. 161-176, 179-188, 191-203 and Clarke 103-150, 151-178	Military Doctrine in Cyber Warfare
5. Carr pp. 217-241 and Clarke pp. 179-218	Information Warfare
6. No textbook reading assignment	Anonymous Ops and Lulzsec
7. Carr pp. 243-261, pp. 263-268, pp. 273-281	Capabilities by Nation-State
8. Clarke pp. 219-236, pp. 257-280	Hactivisim, Terrorism, and other Non Nation-States

9. No reading assignment	U.S. Government Mass Surveillance Programs
10. No reading assignment	Chinese Operations Against United States Targets
11. No reading assignment	United States Patriotic Hackers
12. No reading assignment	Chanology, WikiLeaks, and Operation Payback
13. No reading assignment	Arab Spring and HBGary Federal
14. No reading assignment	Op Sony and Occupy Movement
15. No reading assignment	Lulzsec, AntiSec, Stratfor, and Sabu
16. No reading assignment	Operation Last Resort and the Future of Cyber Warfare

Reading Assignments □ Students are expected to keep up with all reading assignments and come to class **prepared** to discuss the material.

Exams:

There are two exams: the Midterm and the Final. They cover all the course material to that particular point.

Evaluation Method:

Course grades will be based on a total points system. Your grade will be based on a percentage of the total points possible.

Course Point Distribution

Midterm Exam	100 pts
Final Exam	100 pts
Writing Assignments	320 pts

Total Points Possible: 520 points

Example:

Midterm Exam	89 points
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Final Exam	87 points
Writing Assignments	220 points

Total points

396 divided by 520 = 0.761 In the example your grade would be 76%

Grading Final letter grades will be based on the following scale:

90-100	A
80-89	B
70-79	C
60-69	D
0-59	F

In the above example your final grade would be 86, which would be a B.

Grading Policy:

Instructor reserves the right to adjust these values based on the overall class performance.

Other websites of interest:

Appalachian Institute of Digital Evidence - <http://www.appyide.org>