CIS 5208

Social, Economic and Policy Aspects of Cybersecurity

Florida International University

Spring 2019

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Prerequisite	**:** Graduate standing

Course Summary

Course Description

Cybersecurity is not just a technical problem as it occurs in the context of humans and human society. CIS 5208, graduate level course will explore the implications of the cybersecurity in a much broader sense, including social, economic and legal aspects: for example, transformation of traditional expectations of privacy due to social networking and digital surveillance. Conversely, we will also explore how human factors affect cybersecurity in terms of usability of the technology, user psychology and social engineering threats.

Major Instructional Areas

1. Privacy aspects of cybersecurity
2. Legal issues and policies
3. Copyright and digital rights management
4. Ethical issues in cybersecurity
5. Usability, psychology and social engineering
6. Economics of cybersecurity

Course Objectives

This course will enable the student to

1. Discuss why privacy is important to society.
2. Review and assess challenges, ethics, laws, and technologies related to privacy and copyright infringement in the digital environment.

3. Review and evaluate the broad set of legal, social, and economic aspects related to cyber security.

4. Recognize and describe social engineering attacks and the relationship between system security and psychology.

Learning Materials and References

Textbooks

- Ross Anderson. (2008). *Security Engineering: A Guide to Building Dependable Distributed Systems*, 2nd edition, (Available online: http://www.cl.cam.ac.uk/~rja14/book.html) [Ref: AND]

- Hal Abelson, Ken Ledeen, and Harry Lewis. (2008). *Blown to Bits: Your Life, Liberty, and Happiness After the Digital Explosion*, (Available for download under Creative Commons: http://www.bitsbook.com) [Ref: B2B]

- C. Pfleeger, S.L. Pfleeger and J. Marguiles. (2015). *Security in Computing*, 5th Edition, Pearson Education. [Particularly, chapters 9, 11 and 13] [Ref: PFL]

Recommended Resources

- Will be posted on Canvas.

Assignments

Please read carefully instructions for different types of assignments you have to submit for this course.

☐ Term Project Paper / Activity

1. The course includes a substantial term project/activity incorporating one or more course topics. Projects on pure technical aspects of cybersecurity will not be accepted.

2. The topic chosen should be submitted to the Instructor no later than Week 1 (January 23th, 2019). The project planning should start from Day 1 since there will be limited time to prepare the paper.

3. The term paper should be around 3000 words in length, Works Cited not included. References will be in APA or IEEE format.

4. Suggested topics and preparation guidance will be provided on Canvas.

5. Students will present the term paper presentation in Week 14 and Week 15 (April 10th and April 17th, 2019).

6. Students will submit their reports in Week 16 (April 22th, 2019).

☐ Finding Fresh Ideas

Two finding fresh ideas assignments that is a summary of one (1) <u>academic article</u> (on course content). Note that an academic article is peer-reviewed from a qualified source like IEEE or ACM. Whitepapers or similar technical papers found in Internet will not be accepted. Provide APA (American Psychological Association) or IEEE citation and include a copy of (or URL for) the article. Your weekly reports must be well written with references where appropriate. Each submission will be at least one (1) page in length. Conclude with a personal statement recommending what an IT professional should do with this information. Avoid plagiarism by summarizing. Do not copy from the abstract of the article. Submit your input to the Canvas on or before assigned date. Your inputs may be shared with other students.

☐ News Review

Two news review post assignments. Prepare a recent event (not more than 1 month old) from newspapers, magazines, news portals, etc. that highlights the course topics (e.g. Apple vs FBI). One or two paragraph of discussion and one concluding paragraph will be enough. Submit your input to the Canvas on or before assigned date. Your inputs may be shared with other students.

☐ Assignments

Six total assignments that are based on the topics in the course. The directions on the assignments will be provided on the Canvas. Do not copy the answers directly copy the answers from the Wikipedia or online resources or book. Please use your own words to explain. Submit your input to the Canvas on or before assigned date.

Academic Calendar

Please refer to the Academic Calendar for official holidays, add/drop/withdrawal dates, etc.

Canvas

The students will be informed of course activities, assignments, etc through the Canvas course page (CIS5208 RXPC 1191 - **https://fiu.instructure.com/courses/36432**).

Evaluation and Grading

Evaluation Criteria and Grades

The graded assignments and exams will be evaluated using the following weighted categories:

Category	Weight
Finding Fresh Ideas	20
News Review	10
Assignments	30
Term Paper and presentation	25
Midterm Exam	15
TOTAL	**100**

Letter	Range (%)	Letter	Range (%)	Letter	Range (%)	Letter	Range (%)	Letter	Range (%)
A	95-100	B+	86-89	C+	76-79			F	0-35
A-	90-94	B	83-85	C	70-75	D	36-69		
		B-	80-82						

Academic Integrity

All students must comply with the policies that regulate all forms of academic dishonesty, or academic misconduct, including plagiarism, self-plagiarism, fabrication, deception, cheating, and sabotage.

University's Code of Academic Integrity

Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational Mission of the University. All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook.

More information can be found at http://academic.fiu.edu/academic_misconduct.html

Department Regulations Concerning Incomplete Grades

To qualify for an Incomplete, a student:

1. Must contact (e.g., phone, email, etc.) the instructor or secretary before or during missed portion of class.
2. Must be passing the course prior to that part of the course that is not completed
3. Must make up the incomplete work through the instructor of the course
4. Must see the Instructor. All missed work must be finished before last two weeks of the following term.

University policies on sexual harassment, and religious holidays, and information on services for students with disabilities

Please visit the following websites:
http://academic.fiu.edu/
http://drc.fiu.edu

Course Policies

Please review the FIU's Policies webpage. The policies webpage contains essential information regarding guidelines relevant to all courses at FIU, as well as additional information about acceptable netiquette for online courses.

Course Success: Success in this course is achievable and depends on personal effort, a willingness to attempt new ways of thinking and to participate fully.

Academic Misconduct: For works submitted, it is expected that each student will submit their own original work. Any evidence of duplication, cheating or plagiarism will result at least a failing grade for the course.

Deadlines: Assignments are generally due at the end of the week they are listed in the course outline. Specific timing for each assignment will be provided on Canvas. Assignments submitted late will receive

reduced credit. Any work submitted should display Panther ID number, as the students' own work, and that no unauthorized help was obtained.

DO NOT SEND assignments or reports by email.

Instructor reserves right to change course materials or dates as necessary.

Exam policy

1. Make sure to see the video recordings, review the slides, and read the assigned reading in order to do well in the exam.
2. All exams are closed book and open notes.
3. Use of any electronic device with keyboard or touch screen is prohibited. This also applies to cellphones with messaging system.
4. No discussion is permitted during the exams.
5. Instructor is not compelled to give credit for something he cannot read or follow logically.
6. Cheating is considered as a serious offense. Students who are caught will receive the appropriate consequences.

Course Outline

Week	Topic
Week 1	Class Overview
Week 2	Privacy
Week 3	Legal issues and policies
Week 4	Legal Issues and Policies
Week 5	Copyright and digital rights management
Week 6	Ethical issues in cybersecurity
Week 7	Ethical issues in cybersecurity
Week 8	Usability, psychology and social engineering
Week 9	Usability, psychology and social engineering
Week 10	Spring Break
Week 11	Mid Term Exam
Week 12	Economics of cybersecurity
Week 13	Economics of cybersecurity
Week 14	Term paper presentations
Week 15	Term paper presentations
Week 16	Term paper submission