



SYLLABUS

Cybersecurity and Information Security

Single Mom Program

**September 2021
Fall Session**



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Important Note

Welcome to the course on Cybersecurity and Information Security. This syllabus document contains the necessary information about the program. It is important to note that unlike conventional courses, our programs are dynamic. To keep pace with the rigor and the standards of the emerging technologies, we have adopted a flexible policy to modify the course content based on relevant changes in the state of technology. Although the overall scope of the program will not change, our dynamic approach may result in certain changes to ensure that the program is in sync with the technology shifts and needs of the industry.

Section 1

1. Schedule

Cybersecurity and Information Security

- 08:30 - 9:00 a.m.: Research presentation by students*
- 09:00 - 12:30 noon: Presentations
- 12:30 - 01:30 p.m.: Lunch
- 01:30 - 05:30 p.m.: Lab

Note: Adjustments in schedule or location may be necessary from time to time. Students will be notified via Canvas announcement when changes are necessary.

2. Instructors

A team of industry practitioners, academic faculty, and experts with diverse backgrounds in Cybersecurity and Information Security teach this course. Each instructor conducts his/her respective session in accordance with the course syllabus and based on their in-depth expertise in the subject area and bring valuable real-world insight to their sessions.

Click on the name to learn more about the instructor's background.

[Mr. Gelhardt, Mark](#)

[Mr. Halpert, Ben](#)

[Ms. LeSueur, JoEtta](#)

[Dr. Salimi, Abi](#)

[Dr. Zafar, Humayun](#)

3. Course Description

This course introduces participants to the fields of Cybersecurity and Information Systems Security (ISS). The course delivers broad coverage of the theory and practices of information security in an applied format. Given the symbiotic relationship between ISS and cybersecurity, this course will cover both topics. Practitioners and experts in the field of cybersecurity will deliver the course materials through lectures, discussions, lab sessions, and class projects.



4. Learning Outcomes

Upon successful completion of the program, participants will be able to:

- Explain information systems security and its effect on people and businesses.
- Explain the role of access controls in an IT infrastructure.
- Explain the role of IT operations, administration, and security policies.
- Explain the importance of security audits, testing, and monitoring in an IT infrastructure.
- Describe the principles of risk management, common response techniques, and issues related to recovery of IT systems.
- Explain how businesses apply cryptography in maintaining information security.
- Describe networking principles and security mechanisms.
- Describe how malicious attacks, threats, and vulnerabilities impact an IT infrastructure.
- Explain the role of AI and machine learning in cybersecurity.
- Describe information systems security educational opportunities and professional certifications.
- Describe information security standards and U.S. compliance laws in real-world applications.
- Apply numerous cybersecurity tools in a virtual lab setting.

5. Course Structure

Mandatory Sessions	
Learn from experts the theory and applications of Cyber Security in industry. Hands-on learning through in-class projects.	11 Saturdays
Final exam (mandatory) & career advancement session post the exam (optional)	1 Saturday

6. Program Outline or Schedule

Please refer to the following document in Canvas, which is stored under Syllabus, for the detailed course schedule: **Schedule-Cybersecurity-SM-Fall2021**

7. Course Materials/Readings

- **Elementary Information Security**, 3rd ed, Richard E. Smith, Jones and Bartlett Learning, 2021. eBook and Lab Access
- All the required reading materials are included in the course fees and will be provided on Canvas.
- Additional books / materials recommended but not required will be posted on Canvas.

8. Assessments, Capstone, Exam and Grading Criteria

- a. The week prior to each lecture, read the related chapters and presentation slides; research the relevant topics online; and submit a short write-up summarizing the result of your research. Please include the link to the references you use.
- b. There will be quizzes covering the topics discussed in class.
- c. There will be lab activities to enforce the discussed topics.



- d. There is a term project, which teams of 3-5 members will work on.
- e. You will end the program with a final comprehensive exam. The exam will cover all the topics discussed throughout the term. As long as you do well on the weekly quizzes and understand the respective topics, you must not have a problem with the final exam.

Grading Criteria

Subject	Weight	Subject	Weight
Quizzes	20%	Active class and mentoring session participation	5%
Lab Assignments	25%	Final Project	25%
Pre-lecture Research	5%	Final Comprehensive Exam	20%

You must meet the attendance requirement and achieve a minimum cumulative score of **70** to receive your certificate.

9. Attendance

You are required to attend all 12 Saturdays. Certification is not awarded if there is more than one absence. In case of emergencies, once the issues are resolved or once you come back to class, please contact Mr. Hamid Arjmand. (harjman@emory.edu).

10. Certification

Once you meet the attendance requirement and achieve a minimum cumulative score of 70, you will receive your certificate. The certificates will be mailed to you within two weeks of the completion of the course.

11. Requirements for Successful Completion of the Course:

- Attend the 11 Saturday core classes and the 1 Saturday final exam (with the optional career advancement session after the exam);
- Participate in the weekly online help sessions, when offered;
- Commit at least 8 hours per week to complete all class assignments before attending the Saturday class;
- Ask questions if you need clarity on any academic and non-academic concerns;
- Commit to a self-directed learning style and utilize the course resources and additional learning tools to strengthen your knowledge of new topics; and
- Ensure that you have 24-hour access to internet and to a laptop that meets the minimum technical requirements. See the minimum technical requirements at the end of the syllabus.

Section 2

1. Learning Support

In every class, there will be teaching assistants to help you with technical and lab problems. Weekly online help sessions may also be available and participation in these is optional. We strongly recommend students attend these sessions to enhance their learning experience.

Videos of the class (both main class and the help sessions) will be posted on canvas, which students can use for a deeper understanding of the class content.

2. Primary Communications Regarding the Course Content & Course logistics

- **Instructor:** Contact the instructor, through canvas email, if you have questions about the respective topic. Your individual query must be a one to one conversation with your instructor. Allow 24-48 hours for a response.
- **Program Manager:** Contact Dr. Abi Salimi (asalimi@consortinstitute.com, **not the Canvas email**) for anything related to the course contents, quizzes, grades and deadlines, to provide feedback, or when your questions sent to an instructor are not addressed within 48 hours. Allow 24-48 hours for a response.
- **Operations Manager:** For general concerns about the program, classrooms, grievances and all other issues contact the operations manager, Mr. Hamid Arjmand, (harjman@emory.edu). Allow 24-48 hours for a response.
- **Teaching Assistants (TAs):** Teaching assistants are former students who are available during each class to provide individual assistance during an ongoing session. They also assist during the help sessions.

3. Instructor, TA & Student to Student Communication Policy

It is important that students use canvas email for communication with all the instructors, teaching assistants and other students. To communicate with Dr. Salimi, however, please use his direct email address, asalimi@consortinstitute.com, instead of the Canvas email.

Section 3

1. Learning Management System

Canvas is the official learning management system for the Emory University Continuing Education courses. All instructional materials, assessments, and resources will be provided in Canvas.

2. Minimum Technical Requirements

Please refer to Canvas (Modules → References) for this information.