

IT-6823 Information Security Concepts and Administration, Summer 2018

Instructor

Instructor: Dr. Ming Yang

Email: mingyang@kennesaw.edu

Class Delivery: fully online;

Office Hours: Google Hangout: myangcs@gmail.com, 9AM – 12AM, Monday;

Office: J-363

Phone: 470-578-3809

Website: <http://facultyweb.kennesaw.edu/myang8/>

Contact

1. Email me directly at mingyang@kennesaw.edu;
2. Use D2L Discussion Forums and D2L Chat to interact with the instructor and classmates;
3. Sensitive information (such as your grades) can only be sent to KSU email account;
- 4. Please email me through your KSU student email account “@students.kennesaw.edu”;**
- 5. Please DO NOT email me through the email inside D2L;**
6. In the subject line of your email, please have course and section numbers;
- 7. If you email me but cannot get a reply, there are two possible reasons:**
 - a. You emailed me through D2L, not through “@students.kennesaw.edu”;**
 - b. You did not include course and section # in the subject line;**

Course Descriptions

Course Overview

- Help students to develop knowledge of the principles of information assurance at the policy, procedural, and technical levels to prepare the student for a role as a business decision-maker;
- Help students to understand the goals of information security; the threats to security; and the basic control mechanisms to address those threats;
- Covers a variety of topics that will help students to enhance their current IT expertise and gain additional knowledge in the field of information security;
- Real-world examples from the text and current events will be used to demonstrate the applicability of the techniques of information assurance;
- In-class project and assignments will focus upon critical thinking and quantitative measurement for security managers in network computing environments.

Course Objectives

After taking this class, students should be able to:

- Describe the basic concepts, components, methodology, and architecture of information security;
- Implement Access Control Matrix (ACM);
- Describe different categories of information security policies;
- Apply basic encryption techniques, key management techniques, and advanced encryption techniques;
- Describe authentication techniques, design principles, and identity representation;

- Implement advanced ACM techniques, such as ACL and Capabilities;
- Describe system evaluation, different evaluation standards and processes;
- Describe the concept of malicious logic and different types of malicious logic;
- Describe vulnerability analysis and different layers of attacks;
- Describe the concepts and components of auditing and apply the methodologies of sanitization;
- Have basic concepts and knowledge in Wireless Security, WiFi Security, and Cloud Security;

Prerequisite: IT-5102 Introduction to Security

Grading

Grading Policy

| | |
|-------------------------------|-----|
| Homework, Projects, & Quizzes | 55% |
| Individual Research Paper | 5% |
| Midterm Exam | 15% |
| Final Exam | 25% |

| | |
|-------|------|
| Total | 100% |
|-------|------|

A: [90, 100]; B: [80, 89]; C: [70, 79]; D: [60, 69]; F: [0, 59];

- All assignments will be posted on GeorgiaVIEW D2L: <https://spsu.view.usg.edu>;
- All assignments must be submitted through GeorgiaVIEW by the deadline;
- Please double-check your submission; whatever you submit by deadline will be graded;
- **No late submission will be accepted; late submission means no submission;**
- **We do not accommodate any makeup for quiz, midterm, and final exams;**

Course Outline

Course Organization

This course will be organized as weekly units. Each week starts on **Monday** and ends on **Sunday**. All homework, quizzes, and lab assignments belonging to a particular weekly unit are due on **Sunday of that week at 11:59PM**.

On every Monday, you will be provided with the following materials:

- (1) An overview of our contents, materials, and goals for this week (**this is where you start from: all homework, quizzes, assignments will also be announced in this study guide**);
- (2) Assigned reading from textbook;
- (3) PowerPoint slides;
- (4) Homework assignments, or lab, or quiz;
- (5) A brief video lecture to walk you through the PPT slides;

During each week, you should:

- (1) Read the assigned sections of the textbook;
- (2) Digest the PowerPoint slides;
- (3) Take online quiz if assigned;
- (4) Finish homework assignments and submit it on time;

Grading and feedback timeline:

- (1) All online quiz keys will be open the day after the quiz expiration date;
- (2) Quiz keys will be discussed in the video lectures in the following week;
- (3) Homework and projects will be graded within one week after the submission deadline;
- (4) You can find the feedback of homework/projects in GA's reports which are uploaded to D2L;

Course Calendar (tentative)

| Week | Date | Course Contents | Notes |
|------|-------------|--|--|
| 01 | 5/30 – 6/03 | Chapter 01 Overview Chapter 02 Access Control Matrix | W01_HW; |
| 02 | 6/04 – 6/10 | Chapter 04 Security Policies Chapter 05 Confidentiality Policies Chapter 06 Integrity Policies Chapter 07 Hybrid Policies | W02_HW; W02_Quiz; |
| 03 | 6/11 – 6/17 | Chapter 08 Basic Cryptography Chapter 09 Key Management | W03_HW; |
| 04 | 6/18 – 6/24 | Chapter 10 Cipher Techniques Chapter 11 Authentication | Midterm Exam: 8:00AM – 11:59PM, 06/24, Sunday; |
| 05 | 6/25 – 7/01 | Chapter 12 Design Principles Chapter 13 Representing Identity <i>Special Topic: Wireless Security</i> | |
| 06 | 7/02 – 7/08 | Chapter 14 Access Control Mechanisms Chapter 18 Evaluating Systems <i>Special Topic: Wireless Security</i> | W06_Quiz; |
| 07 | 7/09 – 7/15 | Chapter 19 Malicious Logic Chapter 20 Vulnerability Analysis <i>Special Topic: Cloud Security</i> | W07_Quiz; |
| 08 | 7/16 – 7/22 | Chapter 21 Auditing Final Exam; | Final Exam: 8:00AM–11:59PM, 07/22, Sunday; |

Course Expectations

Tips for Effective Online Learning

For an online class, students can really enjoy the benefits of learning at your own pace and in whatever environment that you choose. Below are some tips for effective online learning:

- **Check the GaVIEW D2L course website regularly.** Always be aware of the current status of the course. It might be helpful to subscribe to the RSS feeds within the News Tool, sign up for text message alerts, or subscribe to your posts within the Discussion Tool. By taking advantage of the tools within the environment and the posted learning material, you can maintain an enhanced learning experience.
- **Work closely with your instructor.** If you have any questions, please contact me immediately. The best way to contact me is via email or text, and you will be guaranteed to have a reply within 12 hours.
- **Begin your work early.** If you can start a task early, don't start late. Assuming you spend the same amount of time completing the task, starting later will be much more stressful than starting early. Never wait until the last minute to begin an assignment! You'll have no turnaround time if you need help or something happens.

What is Plagiarism?

Plagiarism is defined as the practice of taking someone else's work or ideas and passing them off as one's own. If you are unaware or uncertain on how to properly cite a particular source, please do not neglect to add the citation—that is considered plagiarism. Cooperation and exchange of ideas with other students are encouraged; however, you are responsible for your own work.

It is **OK** to talk with someone about ways to approach an assignment or discussing a particular problem that you are having. It is **NOT OK** to take someone else's assignment and modifying it, or examining someone's solution in detail.

If you have questions on how to cite your work, please contact me immediately! For more information, please refer to the "Plagiarism Policy" under the *Policies* section of this syllabus.

Policies

Academic Honesty

"A faculty member reserves the right to remove any student from his or her course if the student's behavior is of a disruptive nature or if there is evidence of academic dishonesty." (*SPSU Catalog*)

Plagiarism Policy

Committing plagiarism is considered an act of academic dishonesty and will be taken very seriously. Any instances where academic dishonesty is suspected will result in an automatic grade of a zero for all students involved. Further disciplinary action may be taken such as suspension or expulsion from the University.

Disability Statement

"A student at Southern Polytechnic State University who has a disabling condition and needs academic accommodations has a responsibility to voluntarily identify him/herself as having a disability by scheduling an appointment with the Disability Services Coordinator as soon as possible."

KSU Students Help Resources

For issues with technical difficulties, please contact the **Student Helpdesk**:

- Email: studenthelpdesk@kennesaw.edu
- Call: 470-578-3555

Additional Technology Resources

- [Student Service Desk and Help Center](#)
- [Browser Checker](#)
- [USG Desire2Learn Help Center](#)
- [ITS Documentation Center](#)
- [Check Service Outages](#)

Academic Resources

- [Academic Tutoring Services](#)
- [Disability Resources](#)
- [ESL Study and Tutorial Center](#)
- [Library](#)
- [The Writing Center](#)

Student Support and Wellness Resources

- [Career Services Center](#)
- [Counseling and Psychological Services](#)
- [Center for Health, Promotion and Wellness](#)
- [Student Health Clinic](#)