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Principles of Information Security

Alison Hedrick
Kennesaw State University, ahedric1@kennesaw.edu

SYLLABUS
ISA 3100: PRINCIPLES OF INFORMATION SECURITY
Fall 2022 | Section 01

Course Information

Class meeting time: Tuesdays, 12:30-1:45pm
Modality and Location: Hybrid / Academic Learning Center - 3201

Instructor Information

Name: Alison Hedrick, Senior Lecturer of Information Systems
Email: ahedric1@kennesaw.edu (Preferred method of communication)
Office Location: KH 2302
Office phone: 470-578-7664
Office Hours: By appointment

Course Description

3 Class Hours 0 Laboratory Hours 3 Credit Hours

An introduction to the various technical and administrative aspects of Information Security and Assurance. This course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features.

Learning Outcomes

Upon the completion of this course, you will be able to:

- Define concepts and terminology as well as essential technologies from across the field of information security. (5.1)
- List the categories and be prepared to classify examples of threats to information assets as well as recall and describe common vulnerabilities of information systems and networks. (5.1)
- Define and describe the elements of risk management. (6.1)
- Recall and describe the components of effective information security policy. (6.2)

- List and explain the aspects of planning used to guide the normal operation of an information security organization. (6.2)
- Recognize the elements of vulnerability assessment and identify the tools and technologies used for such assessment. (7.1)
- Identify and explain planning for unexpected events and outline the incident response process. (7.2)
- Identify the key laws and regulations governing the implementation of information security and recognize the ethical concepts used in the industry. (7.1)

Textbook

Gibson, Darril. CompTIA Security+: Get Certified Get Ahead: SY0-601 Study Guide. YCDA, LLC; 6th edition (June 1, 2021). ISBN-13: 979-8748708180

You can purchase this book from Amazon.

Technology Requirements

This course will make use of laboratory and other assignments and exercises that are intended to make the student familiar with vulnerabilities in information system networks and computers. In order to participate in any of the course lab or other assignments (required to earn a passing grade in this course), each student will be required to read and comply with the KSU UITS policies.

Course Requirements and Assignments

Your final grade consists of several components. Submitted work will be graded based on the criteria stated for the assignment. Thoroughness, completeness, and excellent writing skills are required to receive full marks. Detailed rubrics for each assignment are available on D2L. The relative weight for each assignment and grading scale are given below:

Criteria	Points:	Weight:
Exam 1	100	10%
Exam 2	150	15%
Exam 3	200	20%
Quizzes	150	15%
Challenges	150	15%
Cisco Online Training Course	100	10%
Recent Events Report	100	10%
ISS Professional Engagement	50	5%
Total:	**1000**	**100.00%**

Note: The instructor reserves the right to make final grade adjustments based on observed individual performance and contribution to the course.

Grading Appeals

If you have questions about your grade for a particular assignment, please e-mail me. You can appeal your grade within one week from the time the grade has been assigned. After that period, the grade becomes final.

Course Assignments

Complete directions for each of these assignments has been provided in D2L, the course LMS. For all assignments, the student will be assessed on how well they follow directions as well as the completion of the assigned tasks and the quality of the written submissions. For more details, see D2L.

- **Exams**

There will be three exams each taking about 60 minutes. The exams will all be multiple choice questions to simulate the Security+ exam format. The performance grade will be assessed based on the accuracy of answers as compared to the lectures, the textbook and supporting learning materials from the course. Exams will require D2L LockDown Browser AND a webcam.

If a student misses an exam with an excused absence, the instructor will offer a makeup exam. If a student misses an exam with an unexcused absence, the student will receive a zero for that exam grade. For an excuse to be considered as excused, the student must discuss the absence with the instructor prior to the exam or be a documented medical or immediate family emergency. The instructor reserves the right to make the final decision regarding whether or not an absence is excused or unexcused.

- **Quizzes (10 at 15 points)**

Quizzes will be due on Mondays at 11:59pm. There will be 11 quizzes during the semester. Each quiz will include 15 multiple-choice questions similar to the ones you will see on your exams. The purpose of these quizzes is to make sure you are studying regularly and are not learning all the material in the last minute. Further, these quizzes will help you get a better understanding of the format of the course exam as well as the Security+ exam. Quizzes can be attempted as many times as desired by the student and the highest score earned among all attempts will be recorded. Of the 11 quizzes, the lowest score will be dropped, so your final quiz grade will be based on 10 quizzes total. The performance grade will be assessed based on the accuracy of answers as compared to the lectures, the textbook and supporting learning materials from the course. Quizzes will require D2L LockDown Browser.

- **Challenges (10 at 15 points)**

Challenges will be due on Mondays at 11:59pm. During the semester you will complete 11 hacking challenges and submit screenshots and short write-ups explaining how you solved each one. Of the 11 challenges, the lowest score will be dropped, so your final challenges grade will be based on 10 challenges total. This is an individual assignment; however, you are encouraged to seek help in the site's forum or use the internet. Those with more advanced technical skills should contact the instructor and work on more difficult missions.

- **Cisco Online Training Course (100 points)**

To supplement the course instruction, you are required to complete a free online training course "Introduction to Cybersecurity" offered by Cisco. The online self-paced course is for beginners and will take you approximately 15 hours to complete. At the end you will receive a certificate of completion. In order to receive credit for the assignment, please upload your certificate to D2L. You can also add the certificate to your resume.

- **Recent Events Report (100 points)**

The cybersecurity field is constantly changing, and new threats emerge every day. Thus, it is important for future professionals to stay current and up to date with the latest trends. For this assignment you will write three evaluations of cybersecurity event articles that have been published since January 1, 2022. Each of the articles should be reasonably substantial (at least several paragraphs). Each evaluation should be at least 500 words. Each evaluation needs to include additional research and critically evaluate the article. Higher grades will be given to students who select different types of topics to show you have developed an understanding of the breadth of the security field.

- **ISS Professional Engagement (50 points)**

In order to promote professional engagement by students enrolled in IS and ISA courses, you will be expected to participate in a number of activities that will improve your ability to interact with peers and network with the professional community. In order to get full credit for this element of the course, please choose 5 activities from the list published via OwlLife which are identified as IS Engagement events (#ISENG). These activities are also posted in D2L in the Professional Engagement folder.

Evaluation and Grading Policies

Grading Scale:

900-1000 points	90% - 100%	A
800-899 points	80% - 89%	B
700-799 points	70% - 79%	C
600-699 points	60% - 69%	D
0-599 points	0% - 59%	F

It is the responsibility of the student to maintain accurate track of assignment submissions and grades throughout the semester. You are encouraged to meet with the instructor during the semester to discuss your academic progress. If you have questions about a grade, contact the instructor immediately. Please do not wait until the end of the semester to dispute a grade or ask for extra credit opportunities.

Final grades are non-negotiable. Unless there are any issues with calculations, please do not ask your instructor for higher grades. The grade you earn equals the grade you receive!

I will round up grades if they are >= .5. For example, an 89.6 is an A, but 79.2 is a C.

Submission and Assessment of Course Work

Unless specifically informed otherwise, all assignments are to be submitted through D2L.

The assessment of a performance grade will be completed using the assessment guidelines and/or rubric that accompanies each assignment. It is the student's responsibility to ask for clarification if the assessment criteria are not completely clear from the assignment instructions.

Except as specifically noted, and unless informed otherwise, all assignments are individual in nature, and must be the sole work of the student submitting the assignment.

Due dates for every assignment are provided on the course schedule and posted in D2L; however, I recognize that sometimes “life happens.” With the exception of the three exams, all students have an

automatic 1-week grace period for late submissions – no questions asked! This means that you can always submit work up to 1 week late without having to ask for an extension and without losing any points.

After the grace period, late work may still be accepted with penalty. Contact me so we can develop a plan to get you caught up! Absolutely no late work will be accepted after the last day of final exams (Monday, December 12).

Course Policies and Expectations

Communicating with the Instructor

When sending email to the instructor, students are urged to use a subject line described as follows, in order to ensure student email is received correctly and a timely response can be made. The subject line should begin with the course identifier (ISA 3100) and then the subject of the email. For example, "ISA 3100 – Quiz 5 question".

Service Level Commitment

Email: The instructor will respond to each e-mail within one business day of receipt, barring any extraordinary events. Business hours are M-F 9AM-6PM when KSU is open. Some items may be deferred for action, but all email messages will receive a response in the specified time. For example, a message received at 10AM on Tuesday will be answered by 10AM Wednesday. A message received at 5PM Friday will receive a reply no later than 5PM on Monday.

Grading: The instructor will make every effort to have assignments graded within one week of the due date. I will provide feedback as part of the grading process, which will help you recognize areas where extra study/practice is needed.

Syllabus Modification

The instructor reserves the right to modify the syllabus or course schedule at any time during the semester, in order to best attain the objectives of the course. Any changes in assignments or due dates will be announced in class and posted on the course schedule.

Technology Expectations

Students enrolled in this class are expected to have a highly functional level of technology literacy. You are, after all, enrolled in a technology course. Students should be able to upload, download, and modify files, including Office documents, spreadsheets, PDFs, and presentation technologies as presented in this class. You are expected to become VERY familiar with Desire2Learn (D2L), especially the posting of and reading discussion threads, and uploading assignments.

Webcam Requirement

This class requires the use of a webcam. This may be a webcam on your personal computer, a webcam available in a KSU computer lab, or a camera on your mobile device. If you need to purchase a webcam using financial aid, contact the KSU Bookstore.

Communication Rules/Online Course Etiquette

In any classroom setting there are communication rules in place that encourage students to respect others and their opinions. In an online environment the do's and don'ts of online communication are referred to as **Netiquette**. As a student in this course you should:

- Be sensitive and reflective to what others are saying.
- **Avoid typing in all capitals** because it is difficult to read and is considered the electronic version of 'shouting'.
- Don't flame - These are outbursts of extreme emotion or opinion.
- Think before you hit the post (enter/reply) button. You can't take it back!
- Don't use offensive language.
- Use clear subject lines.
- Don't use abbreviations or acronyms unless the entire class knows them.
- Be forgiving. Anyone can make a mistake.
- Keep the dialog collegial and professional, humor is difficult to convey in an online environment.
- Always **assume good intent** and **respond accordingly**. If you are unsure of or annoyed by a message, wait 24 hours before responding.

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.

Turnitin

Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Terms and Conditions of Use posted on the Turnitin.com site.

Institutional Policies

Federal, BOR, & KSU Course Syllabus Policies

KSU Academic Integrity Statement

Every KSU student is responsible for upholding the provisions of the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. Section 5c of the Student Code of Conduct addresses the university's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to university materials, misrepresentation/falsification of university records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the Department of Student Conduct and Academic Integrity (SCAI), which includes either an "informal" resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimum one semester suspension requirement.

ADA Position Statement

Kennesaw State University, a member of the University System of Georgia, does not discriminate on the basis of race, color, religion, age, sex, national origin or disability in employment or provision of services. Kennesaw State University does not discriminate on the basis of disability in the admission or access to, or treatment or employment in, its programs or activities.

For more information, visit KSU's Institutional Policies page.

Diversity Statement

Kennesaw State University prides itself on offering a premiere, personalized educational experience for leadership and engagement within a diverse nation and world. This educational experience is achieved through recognition and appreciation of the differing backgrounds and experiences reflected within the University community. It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit.

KSU Student Resources

This link contains information on help and resources, such as technology support and student success support services that are available to students: KSU Student Syllabus Resources

Week	F2F Day	Topic	Assignments/Assessments	Due (11:59pm)
1	Aug 16	Introduction to Information Security	□ Pre-assessment Exam □ Course Policy Acceptance Quiz □ Hi, My Name Is... Discussion	Monday, August 22
2	Aug 23	Mastering Security Basics (Chapter 1)	□ Chapter 1 Quiz □ Challenge 1	Monday, August 29
3	Aug 30	Understanding Identity and Access Management (Chapter 2)	□ Chapter 2 Quiz □ Challenge 2	Monday, September 5
4	Sept 6	Exploring Network Technologies and Tools (Chapter 3)	□ Chapter 3 Quiz □ Challenge 3	Monday, September 12
5	Sep 13	Securing Your Network (Chapter 4)	□ Chapter 4 Quiz □ Challenge 4	Monday, September 19
6	Sep 20	Exam 1 (Covers Chapters 1-4)	□ Exam 1	Monday, September 26
7	Sep 27	Securing Hosts and Data (Chapter 5)	□ Chapter 5 Quiz □ Challenge 5	Monday, October 3
8	Oct 4	Comparing Threats, Vulnerabilities, and Common Attacks (Chapter 6)	□ Chapter 6 Quiz □ Challenge 6	Monday, October 10
9	Oct 11	Protecting Against Advanced Attacks (Chapter 7)	□ Chapter 7 Quiz □ Challenge 7	Monday, October 17
10	Oct 18	Using Risk Management Tools (Chapter 8)	□ Chapter 8 Quiz □ Challenge 8	Monday, October 24
11	Oct 25	Exam 2 (Covers Chapters 5-8)	□ Exam 2	Monday, October 31
12	Nov 1	Implementing Controls to Protect Assets (Chapter 9)	□ Chapter 9 Quiz □ Challenge 9	Monday, November 7
13	Nov 8	Understanding Cryptography and PKI (Chapter 10)	□ Chapter 10 Quiz □ Challenge 10	Monday, November 14
14	Nov 15	Implementing Policies to Mitigate Risk (Chapter 11)	□ Chapter 11 Quiz □ Challenge 11	Monday, November 28
15	Nov 29	Wrap Up and Review	□ Recent Events Report □ Cisco Certificate	Monday, December 5
Finals	Dec 6-12	Exam 3 (Covers Chapters 9-11 and important concepts from Chapters 1-8)	□ Exam 3	Monday, December 12

Other Important Dates:

August 19 - Registration and Drop/Add ENDS, 11:45 p.m.

November 20-26 – Holidays / Break

October 11 - Last Day to Withdraw Without Academic Penalty, 11:45 p.m.

November 29 - Last Day to Withdraw for Term with a WF