



SYLLABUS  
College of Computing and Software Engineering

Department of Information Technology

IT 4883: Infrastructure Defense

Fall 2023

# Course Information

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Class meeting time: Online

Modality and Location: Online

# Instructor

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**Name**: Darin Morrow

**E-mail**: [dmorro21@kennesaw.edu](mailto:dmorro21@kennesaw.edu)

**Office Location**: J-303

**Office Phone**: 404-285-9405

**Office Hours**: By appointment

**Course Communication**:

# Email is the best way to reach the instructor. Use D2L email if possible. Instructor’s KSU email (xxxx@kennesaw.edu) should only be used when you don’t have access to D2L site.

# Students’ emails will be replied WITHIN 24 hours during the weekday. Weekend and holidays don’t apply.

# When emailing the instructor using accounts other than D2L email, put the course number in the subject line. Emails without proper subject line will have delayed replies.

# Avoid using personal email. Sensitive information (such as your grades) can ONLY be sent to D2L email or KSU email account.

# Course Description

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**Prerequisites/Corequisites**: IT 4323: Data Communications & Networking or equivalent

**Credit Hours:** 3-0-3

**Required Texts**: No textbook is required. Learning material will be provided on the D2L course website.

**Course Description:**

This course provides an overview of the infrastructure assessment and penetration testing process and the processes and techniques for improving the defensibility of that infrastructure.

# Technology Requirements:

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* This class uses D2L as the hosting site. Run a system check to ensure your computer works with D2L. Check out UITS D2L training: <http://uits.kennesaw.edu/support/d2ltraining.php> .
* Internet Connection. A high-speed Internet connection such as DSL or cable Internet access is highly recommended. You may also use computer labs on campus to complete the coursework.
* A web camera is required for a student to take quizzes/exams.

# Student Learning Outcomes

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By the end of this course, a student should be able to:

1. Define the overall process of infrastructure assessment.
2. Describe the goals of a penetration test.
3. Identify and explain the processes and techniques for mitigating risks identified in an infrastructure assessment.
4. Explain the goals and content for communicating the results of a penetration test and remediation plan to a managerial audience.

# Course Requirements and Assignment

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| --- | --- | --- |
| Topic | Weight | Notes |
| Assignments | 40% | There are four assignments each worth 10 points |
| Exams | 20% | There are two exams each worth 10 points |
| Discussions | 20% | There are four discussions – 5 points each |
| Term Project/Paper | 20% | The proposal/outline is worth 20% or 4 points.  final report is worth 80% or 16 points |
| Total | 100% |  |

# Evaluation and Grading Policies

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## **Weight Distribution**

| **Grading Item** | **Weight** |
| --- | --- |
| Assignments | 40% |
| Exams | 20% |
| Discussions | 20% |
| Term Project/Paper | 20% |
| **Total** | **100%** |

## **Grading Scale:**

90% - 100% A

80% - 89% B

70% - 79% C

60% - 69% D

0% - 59% F

Grades will be rounded up if they are > or = .5 or above, for example, an 89.5 is an A, but 79.2 is a C.

*Note: if more than 50% of the class completed the end of course survey then grades will round up to 1 point up vs 0.5. For example, an 89.0-100 will be an A, 79-88.99 will be a B, 69-78.99 will be a C, and so forth.*

# Course Policies

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# Course Attendance Policy

* For the on campus/hybrid section, students are expected to come to each class on time. Stay during the whole class period.
* For both campus/hybrid and online section, students’ attendance is also measured by how often a student logs onto the D2L course website, participation of online discussion, as well as on-time completion of homework.

# Grading Items Turnaround Time

* The grades for the quizzes and exams will be available 48 business hours after the due date
* The grades for labs/assignments/projects will be available 96 business hours after the due date

# Assignments & Exam Policy

* All assignments **MUST** be submitted through D2L (<https://kennesaw.view.usg.edu/> ) course website by the deadline specified in course calendar. Email submission will **NOT** be accepted. Any assignment that is less or equal to 24 hours late is subject to a 10% penalty. Any assignment that is less or equal to 48 hours late is subject to a 20% penalty. Any assignment that is more than 48 hours late will **NOT** be accepted.
* All quizzes and exams MUST be completed on D2L website by the deadline specified in course calendar. The quizzes exams can’t be opened/submitted after the deadline.
* If you must miss an exam due to illness, you must e-mail or call the instructor before the scheduled time. Failure to notify the instructor before the scheduled time will produce an automatic zero for the exam. NO makeup test except for emergencies with proof (e.g., doctor’s slip).

**Student Responsibility**

For this class, you are expected to spend seven to eight hours each week on coursework:

* Check KSU email regularly;
* Login D2L course website frequently to access the course material (at least every other day);
* Follow the weekly study guide in the learning module;
* Study the assigned material such as virtual lectures, textbook chapters and the PowerPoint slides;
* Complete assigned quiz/assignment/discussion/project on time.

**Tips for Effective Online Learning**

For an online class, students can really enjoy the benefits of learning at their own pace and at the place of your choice. Below are some tips for effective online learning.

* *Check D2L course website frequently*. It’s recommended that students should login to D2L course site **AT LEAST** every other day. Always be aware of the status of the course. Take advantage of the posted learning material such as recorded lectures.
* *Work with the instructor closely*. If you have any questions, contact the instructor immediately. You can either email or text me and your message is guaranteed to be replied to within 12 hours.
* *Start 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 start until the last minute! You’ll have no turnaround time if you need help, or something happens.
* *Keep up with the work*. Don’t fall behind. If you do, contact the instructor immediately for what you need to do. The instructor may also contact you if he is concerned. Respond to the instructor’s inquiry promptly.

**Class Communication Rules**

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 my 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.

# Course Schedule

The course schedule is tentative and is subject to change. Please use D2L course calendar as accurate due dates.

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| --- | --- | --- | --- |
| Week | Dates | Module | Assessment |
| 1 | 8/14-/8/20 | Module 01: Introduction & Cyber Threats Review |  |
| 2 | 8/21-8/27 | Module 01: Introduction & Cyber Threats Review | Discussion#1 |
| 3 | 8/28-9/3 | Module 02: Frameworks, Policies & Risk Management |  |
| 4 | 9/4-9/10 | Module 02: Frameworks, Policies & Risk Management | Discussion #2  Assignment #1 |
| 5 | 9/11-9/17 | Module 03: Securing Networks |  |
| 6 | 9/18-9/24 | Module 03: Securing Networks | Discussion #3  Assignment #2 |
| 7 | 9/25-10/1 | Module 04: Securing Data and Applications |  |
| 8 | 10/2-10/8 | Module 04: Securing Data and Applications  Module 08: Term Project/Paper Proposal Discussion | Exam #1  Discussion #4 |
| 8 | 10/9-10/15 | Module 05: Penetration Testing |  |
| 9 | 10/16-10/22 | Module 05: Penetration Testing | Assignment #3 |
| 10 | 10/23-10/29 | Module 06: Intrusion Detection & Prevention Systems  Module 08: Term Project/Paper Proposal Abstract | Term Project/Paper Abstract |
| 11 | 10/30-11/5 | Module 06: Intrusion Detection & Prevention Systems | Assignment #4 |
| 12 | 11/6-11/12 | Module 07: SIEM & Log Analysis |  |
| 13 | 11/13-11/19 | Module 07: SIEM & Log Analysis | Assignment #5 |
| 14 | 11/20-11/26 | Holiday/Break |  |
| 15 | 11/27-12/3 | Module 08: Term Project/Paper - Work Time | Term Project/Paper Abstract  Final exam |

**Important dates:**

**Institutional Policies**

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* [Federal, BOR, & KSU Course Syllabus Policies](https://cia.kennesaw.edu/instructional-resources/syllabus-policy.php)
* [Academic Integrity Statement](http://scai.kennesaw.edu/codes.php)
  + Examples of violation of academic integrity: 1) copy from others or from Internet; 2) allow others to copy your work; 3) use other’s help or help other in completing the quizzes or exams.
  + The first violation of academic integrity, the student will immediately receive 0 for the associated grading item. For the 2nd violation, the student will receive a fail grade for this course.

**KSU Statements on Course Delivery and COVID-19**

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## **Course Delivery**

KSU may shift the method of course delivery at any time during the semester in compliance with University System of Georgia health and safety guidelines.  In this case, alternate teaching modalities that may be adopted include hyflex, hybrid, synchronous online, or asynchronous online instruction.

## **Face Coverings**

Based on guidance from the University System of Georgia (USG), masks are encouraged based on individual preference and assessment of personal risk. Disposable face coverings can be picked up at the Office of Emergency Management at Chastain Pointe on the Kennesaw campus and Norton Hall Police Precinct on the Marietta campus. Please email [oem@kennesaw.edu](mailto:oem@kennesaw.edu?subject=Covid%20Face%20Coverings)if you have questions.

# Student Resources

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This link contains information on help and resources available to students: [KSU Student Resources for Course Syllabus](https://curriculum.kennesaw.edu/resources/ksu_student_resources_for_course_syllabus.php)

## **KSU Academic Integrity Statement**

Every KSU student is responsible for upholding the provisions of the [Student Code of Conduct](https://web.kennesaw.edu/scai/content/ksu-student-code-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.