ECE 696, Hardware-Based Cybers ecurity, Spring, 2024

(Hardware-Based Computer Security and Security Engineering)

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- Preferred Method of Contact: In-person during student/office hours or via email
- Student/Office Hours: Tuesday & Thursday 12:30-01:30 PM
- Classroom, Day/Time: 226JB, Tuesday & Thursday 11:00AM-12:45PM
- Prerequisites: ECE 394 or instructor's consent
- Teaching Assistant (TA): Grading – To Be Decided (TBD)
- TA Contact: Grading – tbd@shockers.wichita.edu

How to use this syllabus

This syllabus provides you with information specific to this course, and it also provides information about important university policies. This document should be viewed as a course overview; it is not a contract and is subject to change as the semester evolves. Any changes should be shared via lecture and/or Blackboard.

University Policies and Procedures

The Wichita State University Policies and Procedures Manual can be found at: https://www.wichita.edu/about/policy/.

Academic Integrity

Students at Wichita State University are expected to uphold high academic standards. WSU will not tolerate a lack of academic integrity. Students are responsible for knowing and following the Student Code of Conduct http://webs.wichita.edu/inaudit/ch8_05.htm and the Student Academic Honesty policy http://webs.wichita.edu/inaudit/ch2_17.htm. When the faculty member determines sanctions are warranted for violations of academic integrity, regardless of severity, the faculty member must report the infraction to the Office of Student Conduct and Community Standards. If you need more information about the process or wish to appeal a decision, please visit https://www.wichita.edu/about/student_conduct/ai.php

If there are homework assignments (HWAs) in this course, each HWA will be an individual assignment (unless otherwise stated). Students can discuss with others, but they should not write the solution together; one submission (wording/coding) should be reasonably different from other submissions. “Collaboration is good, cheating is not!” There will be severe consequences for academic dishonesty. Cheating (such as copying word-for-word from other sources) in any test will automatically result a ‘Fail’ grade in this course; this grading policy applies to all parties involved (including the ones who help/show).

Course Description

Intended for seniors and graduate students who want to study and explore the role of hardware in improving computer security and security engineering. Topics covered include elements of computer security, secure distributed systems, hardware as a cybersecurity solution, physical unclonable function, and security engineering. Special attention is given to team-based research activities.

Measurable Student Learning Outcomes

Measurable Student Learning Outcomes: Undergraduate Level

After passing this course, understand students will experience:

Other Readings

Class notes and other reading materials (such as Physical Unclonable Functions and Applications, etc.) will be made available via WSU Blackboard.

Other Equipment/Materials

More information will be provided during class lectures as/if needed.

Class Protocol

There are points on class performance. It is expected that students join the instructor and/or TA before classes

Grading Scale

WSU uses a +/- grading scale for final grades and to calculate grade point averages. In this class, grades are assigned according to the following chart. (Other classes might assign grades differently: Be sure to understand the different grading scales in all of your classes.)

Points/Percentage	Letter Grade	Grade Points	Interpretation
93 and up	A	4.00	A range denotes excellent performance
90 – less than 93	A-	3.70	
87 – less than 90	B+	3.30	
83 – less than 87	B	3.00	B range denotes good performance
80 – less than 83	B-	2.70	
77 – less than 80	C+	2.30	
73 – less than 76	C	2.00	C range denotes satisfactory performance
70 – less than 73	C-	1.70	
67 – less than 70	D+	1.30	
63 – less than 67	D	1.00	D range denotes unsatisfactory performance
60 – less than 63	D-	0.70	
0 – less than 60	F	0.00	

Grading Assignments

List of grading assignments/components and values toward final grades are shown below. For exams and project, different grading scales will be used for undergraduate and graduate students. Graduate students will have additional activities in the project

Syllabus Policies and Student Resources

All students should familiarize themselves with the course-related policies and student resources that can be found at: www.wichita.edu/syllabuspolicies

These include, but may not be limited to:

- Academic Integrity
- CARE Team
- Concealed Carry Policy
- Counseling and Prevention Services
- COVID-19 Conditions
- Definition of a credit hour
- Disability Services
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Respect for Diversity

Wichita State University is committed to being an inclusive campus that reflects the evolving diversity of society. To further that goal, Wichita State University does not discriminate in its employment practices, educational programs or activities on the basis of age (40 years or older), ancestry, color, disability, gender, gender expression, gender identity, genetic information, marital status, national origin, political affiliation, pregnancy, race, religion, sex, sexual orientation, or status as a veteran. Retaliation against an individual filing or cooperating in a complaint process is also prohibited.

Students from all diverse backgrounds and perspectives are welcome in this Course and the diversity that students bring to this course should be viewed as a resource, strength and benefit. All materials and activities are presented with the intent to be respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectivene

Security Engineering

- Access Control; Physical Protection; Distributed Systems
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Week Tue	Note	Important topics/readings, assignments, due dates, and reminders are listed here so