

Computer and Information Security

CIS 4360

Class Periods: Asynchronous

Location: Online

Academic Term: Fall 2025

Instructor:

Prof. Cheryl Resch

Cheryl.resch@ufl.edu

- Office Hours: W 8-9 PM, <https://ufl.zoom.us/my/cherylresch>

Course Description Covers systematic threat and risk assessment; programmed threats and controls in hardware, software, and human procedures; security policies, models, and mechanisms; theoretical limitations and practical implementations; certification and accreditation standards; and case study reviews.

Course Pre-Requisites / Co-Requisites

To take this course, you must have completed the following courses:

- CDA3101

Course Student Learning Outcomes

By the end of this course, you will be able to:

- Define and apply 3 goals of computer security.
- Describe the use of public key encryption for confidentiality and integrity.
- Describe access control schemes.
- Describe common types of malware.
- Describe common software vulnerabilities.
- Describe firewalls and intrusion detection for protecting communications.
- Describe the structure of the blockchain

Materials and Supply Fees

None

Required Textbooks and Software

Computer Security and the Internet: Tools and Jewels from Malware to Bitcoin, Second Edition by Paul C. van Oorschot. Springer, 2021.

The textbook can be accessed here: <https://people.scs.carleton.ca/~paulv/toolsjewels.html>

Required Computer

Recommended Computer Specifications: <https://it.ufl.edu/get-help/student-computer-recommendations/>

HWCOE Computer Requirements: <https://www.eng.ufl.edu/students/advising/fall-semester-checklist/computer-requirements/>

Course Schedule

Week	Topic	Assignment	Due
1/2	Security Concepts and Principles	Homework Problems	Aug 31
3	Cryptographic Building Blocks	Homework Problems	Sept 7
4	User Authentication	Password Strength Analysis report	Sept 14
5	Authentication Protocols	Homework Problems	Sept 21
6	OS Security and Access Control	Access Control NICE Lab	Sept 28
7	Software Security	Race Conditions SEED lab	Oct 5
8	Malicious Software	Homework Problems	Oct 12
9	PKI	PKI SEED Lab	Oct 19
10	Web and Browser Security	XSS SEED Lab	Oct 26
11	Firewalls and Tunnels	NICE Firewall lab	Nov 2
12	IDS and Network Based Attacks	NICE Snort Lab	Nov 9
13	Blockchain	Blockchain SEED Lab	Nov 16
14	Wireless Security	Homework Problems	Nov 30
		Final Assessment	Dec 7

Late Policy

Programming Assignments, Cache Analysis Assignment, and Buffer Overflow Assignment may be turned in up to four days late with a late penalty of 10 points per day.

Honesty Policy

Your code for your Programming Assignments and the Analysis Assignments must be your own. You may discuss assignments with others, but **copy/pasting code from other students or online resources is strictly prohibited**. We will be using TurnItIn to check for plagiarism.

Your writing and graphs for the Cache Analysis Assignment must be your own. **Copy/pasting writing and/or graphs from other students is strictly prohibited**.

You may discuss and draw out algorithms for the assignments with other students. You may not copy code from another student. You may not copy AI generated output. You may not copy code from the internet. A sanction of an E in the course will be imposed if a student is found to have violated the honesty policy.

Discussion of Grades

Grades on any assignment may be discussed with me via email or in office hours up to **seven days after the grade was released**.

Etiquette Expectations

Please communicate in a professional manner in email, on Discord, and in Canvas Discussions.

Evaluation of Grades

We will make every effort to have each assignment graded and posted within one week of the due date.

Course Grading Policy

Assignment	Points
Weekly Assignments 6.5% each 13 assignments with 2 drops	71.5%
Final Exam	18.5%
Discussions	10%
Total	100%

Grading Scale

Percent	Grade	Grade Points
93 - 100	A	4.00
90.0 - 92.99	A-	3.7
87 - 89.99	B+	3.3
83 - 86.99	B	3.00
80.0 - 82.99	B-	2.7
77 - 79.99	C+	2.3
73 - 76.99	C	2.00
70.0 - 72.99	C-	1.7
67 - 69.99	D+	1.3
63 - 66.99	D	1.00
60.0 - 63.99	D-	0.7
0 - 59.99	E	0.00

More information on UF grading policy may be found at:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Academic Policies & Resources

To support consistent and accessible communication of university-wide student resources, instructors must include this link to academic policies and campus resources: <https://go.ufl.edu/syllabuspolices>. Instructor-specific guidelines for courses must accommodate these policies.

Commitment to a Positive Learning Environment

The Herbert Wertheim College of Engineering values varied perspectives and lived experiences within our community and is committed to supporting the University's core values.

If you feel like your performance in class is being impacted, please contact your instructor or any of the following:

- Your academic advisor or Undergraduate Coordinator
- HWCOE Human Resources, 352-392-0904, student-support-hr@eng.ufl.edu
- Pam Dickrell, Associate Dean of Student Affairs, 352-392-2177, pld@ufl.edu