



# University of Colorado Colorado Springs

**Course Title:** Cybersecurity for All

**Course Number and Section:** CS 1910-001

**Semester & Year:** Spring 2024

**Instructor Name:** Dr. Serena “Sully” Sullivan

**Credit Hours:** 3

**Clock Hours:** 45

**Outside of Class:** 45

**Instructor Phone:** 719-255-5153

**Instructor Email:** [ssulliv7@uccs.edu](mailto:ssulliv7@uccs.edu)

**Office:** UCCS Cybersecurity Building, 3650 N Nevada Ave, Colorado Springs, CO 80907, Office 120L

**Meeting Days:** Monday/Wednesday    **Times:** 12:15 p.m. – 1:30 p.m.    **Location:** ENG 138

## Student Hours:

<b>Mondays &amp; Wednesdays</b>	1:45 p.m. – 2:45 p.m. and by appointment	Student hours can be held in person, via Teams, or by phone.
<b>Tuesdays &amp; Thursdays</b>	11:00 a.m. - 12:00 p.m. and by appointment	Student hours can be held in person, via Teams, or by phone.
<b>Fridays</b>	12:30 – 1:30 p.m. and by appointment	Student hours can be held in person, via Teams, or by phone.

**Semester Begins:** 1/16/2024

**Census Date:** 1/31/2024    \*Last date to drop a class without penalty.

**Withdraw Date:** 4/5/2024    \*This is the last day that a “W” can be assigned as a grade.

**Spring Break:** 3/25/2024 –3/29/2024

**Finals Week:** 5/6/2024 - 5/9/2024    [Final Exam Schedule](#)

**Graduation:** 5/10/2024



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**Course End Date:** 5/9/2024

## **Catalog Description**

Explores non-technical aspects of cybersecurity to develop basic understanding of cybersecurity concepts. Topics include: Cyber Threats; Cybersecurity Planning and Management; Policy, Legal, Ethics, and Compliance; Security Program Management; and Security Risk Analysis.

Approved for Compass Curriculum requirement: Explore-Physical and Natural World.

## **Prerequisite Courses and Skills: What You Should Already Know**

None.

## **Required Text**

Carol A. Siegel and Mark Sweeney. *Cyber Strategy: Risk-driven Security and Resiliency*. CRC Press, 2020. ISBN: 0367339455

Supplemented by other papers and handouts.

## **Compass Curriculum**

This course is part of the Compass Curriculum. The Compass Curriculum is the signature undergraduate education program at UCCS for all majors and all colleges. This program endeavors to provide you with the tools for professional and personal success that you will need when you graduate. The program includes skills that employers say that they want students to have from their education (critical thinking, oral and written communication, ethics, innovation, problem-solving, understanding inclusiveness, and sustainability).

Explore courses help you learn about:

- Specific methods of producing and discussing knowledge.
- Connections between this area of study and other disciplines.
- Thinking critically and creatively at the level required of a university student.
- Core ethical principles and responsible research methods of this discipline.

## **Essential Learning Outcomes**

1. Gather, critically analyze and evaluate quantitative information within relevant disciplinary contexts
2. Gather, critically analyze and evaluate qualitative information within relevant disciplinary contexts
3. Apply and integrate knowledge from a range of disciplines, including interdisciplinary or cross-disciplinary research
4. Demonstrate the core ethical principles and responsible methods of your discipline

## **Course Aims: What You Will Learn**

Through this course you are expected to achieve the learning objectives that will enable you to:

1. Understand concepts of Cyber Threats in order to:
  - a. Identify the bad actors in cyberspace and compare and contrast their resources, capabilities/techniques, motivations and aversion to risk.
  - b. Describe different types of attacks and their characteristics.
2. Apply techniques of Cybersecurity Planning and Management to
  - a. Examine the placement of security functions in a system and describe the strengths and weaknesses.



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- b. Develop contingency plans for various size organizations to include: business continuity, disaster recovery and incident response.
- c. Develop system specific plans for: (i) the protection of intellectual property; (ii) the implementation of access controls; (iii) patch and change management.
- d. Outline and explain the roles of personnel in planning and managing security, including C-suite executives, management, security staff, and end users.
3. Know the primary intersection of Policy, Legal, Ethics, and Compliance to:
  - a. List the applicable laws and policies related to cyber defense and describe the major components of each pertaining to the storage and transmission of data.
  - b. Describe individuals' responsibilities related to the handling of data as it pertains to legal, ethical and/or agency auditing issues.
  - c. Describe how the type of legal dispute (civil, criminal, private) affects the evidence used to resolve it.
4. Apply concepts of Security Program Management to:
  - a. Apply their knowledge to develop a security program, identifying goals, objectives and metrics.
  - b. Apply their knowledge to effectively manage a security program.
  - c. Assess the effectiveness of a security program.
5. Ability to conduct Security Risk Analysis to:
  - a. Assess the effectiveness of a security program.
  - b. Describe various risk analysis methodologies.
  - c. Evaluate and categorize risk (i) with respect to technology; (ii) with respect to individuals, and (iii) in the enterprise; and recommend appropriate responses.
  - d. Compare the advantages and disadvantages of various risk assessment methodologies
  - e. Select the optimal methodology based on needs, advantages and disadvantages.

## Course Schedule: What You Will Do

*Schedule subject to Change.* Activities and Readings correspond with that day's lecture and work.

## Grading: Earning the Grade You Want

Your grade will be calculated from a tally of earned points.

You can complete:

- 2 project assignments, 100 points each: 200 points
- 10 homework assignments, 30 points each: 300 points.
- 1 midterm examination, 200 points each: 200 points.
- 1 final examination: 300 points.

There is no curve. The minimum letter grade you can receive is by earning points as follows:

A	930 – 1000	A-	900 – 929		
B+	870 – 899	B	830 – 869	B-	800 – 829
C+	770 – 799	C	730 – 769	C-	700 – 729
D+	670 – 699	D	630 – 669	D-	600 – 629
F	0 – 599				

**Every point you earn counts!** A grading rubric accompanies each assignment (homework/project).



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Homework must be done independently without collaborating with your classmates. Collaboration is permitted on projects only if assigned teammates. All resources, including classmates, used outside of the required textbook or provided class materials must be disclosed for each assignment turned in.

Each assignment will be described in a self-sufficient electronic document with detailed instructions for completing the assignment and a grading rubric that explains how the assignment will be evaluated. If at any time you are unclear regarding any aspect of an assignment, including how it will be graded, you are strongly encouraged to visit office hours or contact the instructor or TA for clarification. Unless otherwise specified, **all assignments are due at 11:59 P.M. on the specified date and must be submitted via Canvas**. Requests for re-grading or adjustments must be submitted within 1 week following the posting of grades.

Midterm and Final examinations will be *closed book* examinations, but you will be allowed one 8.5x11 sheet of *hand-written notes* (front and back) that must be turned in with your exam.

## Grading and Academic Honesty

- The instructor or assigned Teaching Assistant (TA) will grade submissions in a timely manner.
- Your instructor has a zero-tolerance policy for academic dishonesty. Unoriginal submissions will not be accepted and will be assigned a zero.
- There will NOT be an opportunity to re-submit work if the original submission was found to be a copy.
- Academic dishonesty concerns will be reported to the department chair and may necessitate a meeting between the instructor, student, and chair. Further consequences will be applied if the student continues to disregard academic integrity.

The use of AI tools, including ChatGPT, is permitted in this course for specific assignments only. When the use of the tool is allowed, it will be explicitly noted in the assignment directions. You are responsible for the information you submit based on an AI query (for instance, that it does not violate intellectual property laws, or contain misinformation or unethical content). Your use of AI tools must be properly documented and cited, using quotation marks or other appropriate indicators of quoted material when appropriate, in order to stay within university policies on academic honesty.

The use of generative AI tools is not permitted in this course for the following activities:

- Impersonating you in classroom contexts, such as by using the tool to compose discussion board replies or content that you put into a Teams or Zoom chat
- Completing group work that your group has assigned to you
- Writing a draft of a writing or programming assignment
- Writing entire sentences, paragraphs, or papers to complete class assignments

## Attendance and Classroom Behavior

Regular attendance is expected. You should attend class on-time and prepared to demonstrate you have understood the concepts covered thus far in the course, and you should stay engaged and alert for the entirety



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of the class. If you do miss class, you should discuss with your classmates about what you missed. ***The instructor will not record in-person class sessions.***

Please store and silence personal electronic devices in the classroom. If you need to utilize your electronic devices, please do so in the hallway. Exceptions are made for taking notes on laptops or tablets.

You are expected to behave professionally. The classroom is a safe place for individuals to learn; behaviors detracting from the learning environment will not be allowed. Acceptable behavior includes allowing someone to finish speaking before the next person speaks, asking questions relevant to course topics, providing examples of professional or relevant experience to the topic, and being respectful of others' thoughts and opinions. Healthy lively discourse often assists in retaining information and is encouraged! If you are not sure if something is appropriate, please ask.

### **Late Submissions and Missed Exams**

In general, assignments, projects, and exams may not be turned in late and will earn a zero.

Exceptions can be made for life events (i.e., getting married, birth, dental and doctor's appointments, etc.). Late submissions or make-up examinations are permitted in case:

1. Permission is obtained from the instructor **at least 24 hours before the submission deadline or examination date** (if it is less than 24 hours or past the exam date, a late penalty will apply, see #2).
2. All other cases are left to the instructor's discretion. The usual late penalty is a loss 10% possible points for each day late. No assignments will be accepted after the scheduled final exam (whether you have completed the final or not).
3. Accommodations for disabilities documented through Disability Services is provided and is coordinated on an individual basis.

### **Extra Credit: Redemption**

Extra credit and *redemption points* may be offered. **If taken, redemption points replace previously earned points—even with a lower score!** If opportunities for extra credit/redemption points are offered they will be available to all students equally.

### UCCS Policies

In addition to the course policies, all UCCS students are expected to know and comply with policies set by the campus and the Regents of the University of Colorado. The most important include:

### **Disability Services (or Accommodations)**

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to register with Disability Services and provide them with documentation of your disability. They will work with you to determine what accommodations are appropriate for your situation. To avoid any delay, you should contact Disability Services as soon as possible. Please note that accommodations are not retroactive and disability accommodations cannot be provided until a Faculty Accommodation Letter has been given to me. [Please contact Disability Services](#) for more information at Main Hall room 105, 719-255-3354 or [dservice@uccs.edu](mailto:dservice@uccs.edu).

### **Military Students Syllabus Statement**

Military students who have the potential to participate in military activities including training and deployment should consult with faculty prior to registration for any course, but no later than the end of the first week of classes.

### **Student Conduct**



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It is your responsibility to read and understand this collection of policies regarding student behavior including the code of conduct, ethics, cheating, plagiarism, unacceptable behavior, and more.

**Withdraw** – It is the student’s responsibility to withdraw from a class. Faculty are not obligated to withdraw students after Census Date.

**Academic Ethics** – <https://dos.uccs.edu/student-conduct>

Note: You may view the full academics ethics policy by clicking the link provided. The following is a summary of the policy.

1. Students shall observe complete honesty in all academic matters to include course requirements, classroom activities, research, and scholarship.
2. Violations of the code are included on the student conduct webpage.

Examples of academic ethical violations:

1. Committing the act of plagiarism.
2. Using unauthorized materials or receiving unauthorized assistance during an examination or in connection with any work done for academic credit.
4. Copying information from another student during an examination.
5. Rendering unauthorized assistance to another student by knowingly permitting him or her to see or copy all or a portion of an examination or any work to be submitted for academic credit.
6. Obtaining prior knowledge of examination materials.
7. Selling or giving to another student unauthorized copies of any portion of an examination.
8. Submitting a commercially prepared paper or research project for academic credit.

**Mandatory Reporting** – Our college is committed to preserving a safe and welcoming educational environment for all students. As part of this effort, the faculty and staff have an obligation to report certain issues relating to the health and safety of campus community members. They must report to the appropriate College officials any allegation of discrimination or harassment. Sexual misconduct, which includes sexual harassment, non-consensual sexual contact, non-consensual sexual intercourse, and sexual exploitation, is considered a form of discrimination.

In addition to reporting all discrimination and harassment claims, the faculty and staff must report all allegations of dating violence or domestic violence, child abuse or neglect, and/or credible threats of harm to yourself or others. Such reports may trigger contact from a college official who will want to talk with you about the incident that you have shared. In almost all cases, it will be your decision whether you wish to speak with that individual.

**Religious Accommodation:** If due to religious obligations you plan to request adjustments with scheduled exams, assignments or required attendance in this class, please contact me as soon as possible. I will work with you and university counsel’s office to ensure a reasonable accommodation is made.