

# Syllabus

CYBR 535 Advanced Network Security, Winter(2025)

**Class:** Monday-Wednesday 1-1:50. **Lab:** Friday 1-2:50

## Description

This course delves into advanced network security topics including real world applications and current research in the field. The course builds on the basic network security curriculum. Students study, in detail, current topics in network security focusing on: censorship, surveillance, man in the middle attacks, side channels, VPN issues, and more. **NOTE: You must be enrolled in CYBR 535L the co-requisite lab course.**

## Instructor information

**Instructor:** Antonio Espinoza (he/him)

**Office:** CAT 338

**Office hours:** Tuesday 2:00-3:00, Friday 12:00-1:00 and by appointment.

**Email:** [aespinoza17@ewu.edu](mailto:aespinoza17@ewu.edu)

## Tentative topic schedule

Week	Topics/Labs
1	Introduction & Security conference review Lab - Group A Work on presentation Lab - Group B Related work
2	Student presentations on past security topics Lab - Group B Work on presentation Lab - Group A Related work
3	Student presentations on past security topics Lab - Reproduce results part 1
4	Reproducibility in research Lab - Reproduce results part 2
5	Cryptography Lab - Cryptography
6	Censorship/Surveillance Lab - Get Censored
7	De-anonymization Lab - De-anonymize data
8	Privacy Enhancing Technology (PETs) Lab - Redemption
9	Student presentations on current security topics pt2 Lab - Final Project
10	Student presentations on current security topics pt2 Lab - Final Project
Final Project Presentation	<u>March 18, 1:00 - 3:00</u>

Week	Topics/Labs
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## Grading

There is a single grade for the lecture and lab portion of this course (i.e., you will get one combined grade taking into account both the lab and lecture).

## Grade Distribution

Type	Percent of Final Grade
Labs/Homework	35
Presentations	35
Final Project	30

## Letter Grade Conversion

Percent	Grade
92 - 100	A
89 - 91	A-
85 - 88	B+
82 - 84	B-
75 - 77	C+
71 - 74	C
68 - 70	C-
65 - 67	D+
62 - 64	D
59 - 61	D-
< 59	F

## General Policies

### Lectures

If you choose not to come to class then please do not use office hours as a substitute for not attending lectures. Those that attend regularly and participate in class discussion will be rewarded accordingly when final grades are calculated! Classroom activities will complement, not necessarily duplicate, the text. Furthermore, you are accountable for material covered in class, so you miss class at your own risk!

### Exams

No makeup exams are given without prior arrangements or in the case of a **documented** emergency after the fact. Exam dates are provided at least a week before they occur, and review sessions may occur preceding each exam.

### Homework/Labs:

Homework, labs, and assignments will be in the form of; programming projects in class labs, written assignments, *etc.*

- All written assignments must be in PDF format.
- You have 2 free late days, use them wisely!

- Assignments are due by the required time ***on the due date***. Late assignments **WILL NOT** be accepted (unless using late days). Do not email me the code, do not post it in Canvas as a comment, just turn your stuff in on time or earlier. You can submit multiple times and we will grade the last submission. In the case of a documented emergency, the instructor reserves the right to accept late work. A doctor's note may not be considered a documented emergency.
- You must submit all files such that your code can be compiled. If your code does not compile because you did not provide the correct/complete files, then you will receive a maximum of 5 points.
- Incomplete submissions/non-compiling code/unreadable PDF files/etc... will not be accepted. Ensure everything is correct before you submit, and all required files are included. You will receive a score of a 0 for incomplete submissions/non-compiling code/unreadable PDF files/etc.
- If the grader/the instructor make a mistake you must discuss the mistake with the instructor immediately.

## Final Grade

Your final grade will be calculated based on the percentages described above.

## Preparation

You are expected to read material from the assigned coursework that is being discussed in class ***ahead*** of time. Examples given in class and by the authors should be confirmed by the student, to guarantee complete understanding of the subject.

## Academic Integrity Policy

Students are expected to uphold a code of ethics and professional behavior that promotes the highest standards of integrity, honesty, trustworthiness, and professionalism when exploring cybersecurity-related topics and exercises. Students are required to sign the NCAE-C Student Code of Ethics and Professional Conduct during the first week of class to proceed in the course. Copies are available by emailing [kriddle2@ewu.edu](mailto:kriddle2@ewu.edu).

Academic Integrity is the cornerstone of the university. Any student who attempts to gain an unfair advantage over other students by violating the Academic Integrity policy may be reported to the university and may receive a sanction up to and including XF for the course, suspension, or expulsion from the university. This policy is on the EWU web site. <https://inside.ewu.edu/policies/knowledge-base/wac-172-90-student-academic-integrity-3/>

Examples of academic dishonesty include misrepresenting others' work as your own, failure to provide proper citations in written text, stealing or destroying material intended for the use of other students, using notes or cell phones during exams, taking photographs of exams, assisting others during exams, copying someone else's work, letting his or her work be copied, and sharing course content without permission.

## Cheating Policy

You are allowed to discuss your thoughts with and help other classmates; however, you must do your own work, meaning ALL work should be your own. Plagiarism and cheating **WILL NOT BE TOLERATED**. Plagiarism includes using someone else's programs or parts of programs as your own; copying another person's work; handing in another person's work for your own. If you work with someone else to understand the content, it is important that each person does the assignment separately. Should any of your work be duplicated from another person or any other source, you will be asked to leave the class and not return. Your final grade will be 0.0. Any infractions will be handled in accordance with the academic integrity policy of Eastern Washington University.

## Americans with Disabilities Act

Eastern Washington University is committed to providing support for students with disabilities. If you are a student with physical, learning, emotional, or psychological disabilities needing an accommodation, you are encouraged to stop by Student Accommodation and Support Services (SASS), HAR 019 or call 509-359-6871.

## Religious Accommodations

If you would like to request an accommodation for reasons of faith or conscience, please refer to EWU's policy on Holidays and Religious Accommodations available at <https://inside.ewu.edu/policies/>. Accommodations must be

requested within the first two weeks of this course using the Holidays and Religious Accommodations Request form available at <https://inside.ewu.edu/student-life/resources/holidays-and-religious-accommodations-request/>.

## **Equal Opportunity**

Eastern Washington University does not discriminate in its programs and activities on the basis of race, color, creed, religion, national origin, sex, pregnancy, sexual orientation, gender identity/expression, genetic information, age, marital status, families with children, protected veteran or military status, HIV or hepatitis C, status as a mother breastfeeding her child, or the presence of any sensory, mental, or physical disability or the use of a trained guide dog or service animal by a person with a disability, as provided for and to the extent required by state and federal laws.

## **EWU Title IX Policy**

Eastern Washington University recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct will NOT be tolerated at EWU. If you have been subjected to sexual misconduct, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct I must report the matter to the Title IX Coordinator. Should you want to report to a confidential source you may contact the following:

- Sexual Assault Family Trauma (SAFeT) – 509-624-7273 – 24 hours
- YWCA Domestic Violence Crisis Line – 509-326-2255 – 24 hours
- Suicide and Mental Health – 509-838-4428 – 24 hours
- Employee Assistance Program (EAP) – 360-407-9490 (employees)
- Counseling and Psychological Services (CAPS) – 509-359-2366 (students)