CS 450/650 Fundamentals of Integrated Computer Security

Ahmet Aksoy

Course Information

- Mondays & Wednesdays, 5:30-6:45pm
- Place: here
- Office hours: Mondays & Wednesdays, 4:00-5:15pm
- Instructor: Ahmet Aksoy
- Email: <u>aksoy@nevada.unr.edu</u>
- Office: SEM 211 (CNL Computer Networking Lab)
- Course homepage: WebCampus

Recommended Textbook

William Stallings, Lawrie Brown, "<u>Computer</u>
 <u>Security: Principles and Practice</u>", Prentice Hall,
 4thedition, 2017.

Supplemental Books

- Charles P. Pfleeger, Shari Lawrence Pfleeger,
 "Security in Computing", Prentice Hall, 5th edition,
 2015.
- Charlie Kaufman, Radia Perlman, Mike Speciner,
 "Network Security: Private Communication in a Public World", Prentice Hall, 2nd edition, 2002.
- Mae Bishop, "Computer Security: Art and Science", Addison Wesleyl.
- Richard E. Smith, "<u>Elementary Information</u> <u>Security</u>", Jones&Bartlet Learning, 2015.

Tentative Topics

- Introduction to computer security
 - Computer Security Concepts
 - Threats, Attacks, and Assets
- Basic crypto knowledge
 - DES, AES, RSA, Hash
- Basic computer security technology
 - Digital signature, key exchange, user authentication

Tentative Topics II

- Attacks
 - DoS, buffer overflow, software security
- Defense schemes
 - Firewall, intrusion prevention system, intrusion detection system
- Network Security
 - Internet Security Protocols and Standards
 - Internet Authentication Applications
 - Wireless Network Security

Cybersecurity Minor

- Program requirements—18 units
- Required courses 6 units
- Core courses 6-12 units
- Foundation courses 0-6 units

- More information
- https://catalog.unr.edu/preview_program.php?cato id=24&poid=17937#_ga=2.263544332.1892601928 .1504024382-120 3341291.1487212320

Grading policy

- CS 450
 - 20% Homework/Lab Assignments (6-7)
 - 35% Mid-term Exam (1)
 - 40% Final Exam (1)
 - 5% Presentation Evaluations
- CS 650
 - 20% Homework/Lab Assignments (6-7)
 - 35% Mid-term Exam (1)
 - 35% Final Exam (1)
 - 8% Paper Presentation
 - 2% Presentation Evaluations

Grading policy

- A: 87-100
- B: 75-86
- C: 63-74
- D: 51-62
- F: 0-50 (or caught cheating)
- Hard deadlines of homework
- Deadlines will be announced in class

Course Policies

- Students are expected to attend, and be on time, for every class. While the course does not have an attendance policy, students who miss class and/or are late for class may experience an impact on their grade by missing classroom activities.
- Students are expected to turn in all assigned materials in a timely manner.

Course Policies – UNR Athletics

• If you are involved with any university-sponsored athletic activities that will have an impact on your attendance, please provide your instructor with a letter from your coach and/or the UNR Athletic Department as soon as possible, but no later than the end of the second week of classes. This should include the official schedule of your activities which will impact your attendance throughout the semester.

Course Policies – Academic Dishonesty

- Cheating, plagiarism or otherwise obtaining grades under false pretenses constitute academic dishonesty according to the code of this university. Academic dishonesty will not be tolerated and penalties can include filing a final grade of "F"; reducing the student's final course grade one or two full grade points; awarding a failing mark on the coursework in question; or requiring the student to retake or resubmit the coursework.
- For more details, see the University of Nevada, Reno General Catalog.

Course Policies — Disability Services

 Any student with a disability needing academic adjustments or accommodations is requested to speak with the Disability Resource Center as soon as possible to arrange for appropriate accommodations.

Course Policies – Academic Success Services

Your student fees cover usage of the University
Math Center (775) 784-4433, University Tutoring
Center (775) 784-6801, and University Writing
Center (775) 784-6030. These centers support your
classroom learning; it is your responsibility to take
advantage of their services. Keep in mind that
seeking help outside of class is the sign of a
responsible and successful student.

Course Policies – Audio/Video Recording

 Surreptitious or covert video-taping of class or unauthorized audio recording of class is prohibited by law and by Board of Regents policy. This class may be videotaped or audio recorded only with the written permission of the instructor. In order to accommodate students with disabilities, some students may be given permission to record class lectures and discussions. Therefore, students should understand that their comments during class may be recorded.