

Instructor: Dr. Eric Swedin  
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Office Hours: 4:30-5:30 on Wednesdays in Ogden; 1:30-5:30 on Thursdays at Davis. Other office hours are available by appointment.

**Texts:** Stuart McClure, *Hacking Exposed 7 Network Security Secrets & Solutions Seventh Edition: Network Security Secrets and Solutions* (McGraw-Hill Osborne, 2012) ISBN-13: 978-0071780285.

Kevin D. Mitnick and William L. Simon, *The Art of Intrusion: The Real Stories Behind the Exploits of Hackers, Intruders & Deceivers* (Wiley, 2005) ISBN-10: 0471782661 ISBN-13: 978-0764569593

Bruce Schneier, *Beyond Fear: Thinking Sensibly About Security in an Uncertain World* (2006) ISBN-10: 0387026207

**Class Description:** This course covers the basic principles and concepts in information security and information assurance. It examines the technical, operational, and organizational issues of securing information systems. Topics include operating system issues, viruses, security awareness at the executive, technical and user levels, physical security, personnel security issues, policies, procedures, and the need for an enterprise security organization. Case studies and exercises in the computer lab will be used to provide examples of the need for organizations to develop security procedures and policies. Prerequisites: IST 3620 and IST 4600.

Class participation and discussion are expected. While some lecture might be presented, for the most part, the class will focus on the discussion of the assigned topics and reading.

**Students with Disabilities:** Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in Room 181 of the Student Service Center on the main campus. SSD can also arrange to provide materials (including this syllabus) in alternative formats if necessary.

**Campus Closure:** In the event of an extended campus closure, please look at your Weber State email in order for instructions on how we will continue the class via email and the online course system.

**Quizzes:** There will a quiz every day at the beginning of class. Each quiz will be based on the readings that you were given for that day, though a couple of questions may refer to content covered on the previous class day.

**Grading Policies:** Grades will be determined on the following basis:

Quizzes	40%
Encrypted Email Project	20%
Individual Research Project	30%
Class participation	10%

Grades: A: 90 - 100% B: 80 - 89% C: 70 - 79% D: 60 - 69% E: 0 - 59%  
(Grades at the high or low ends of these ranges will earn plus and minus grades.)

**Cheating Policy:** Cheating and deceit are not accepted at Weber State University. *Cheating on an quiz or assignment, or turning in someone else's work as your own, will result in an E for the class.* You may work together on your assignments and papers, but you must turn in your own work. If you quote from a book, article, or web site, you must properly quote and cite your work. **Avoid even the appearance of cheating or plagiarism.**

**Encrypted Email Project:** Set up two email servers on two different machines, send encrypted email from an account on one server to an account on the other server and successfully decrypt the email text. Students may do this project as individuals or as two-person groups. Each project will have to be demonstrated to the instructor and each student (even if you are part of a team) will submit a separate four-page report describing what you did (i.e., what products you used, why you used those products, what problems you encountered, what security problem was solved by this project, and what security problem(s) that particular product solves). You must hand in the four-page report(s) at the same time that you demonstrate the project to me.

**Individual Research Project:** Students may do this project as individuals or as two-person groups. The project consists of selecting a topic and a research plan (both of which must be approved by the instructor). The purpose of this project is to demonstrate good problem solving methodology, and to engage not just in just passive learning, but active learning: proving, testing, finding out for yourself.

Each student or group will present the results of their project to the rest of the class. This presentation will not be over a half-hour long and will be graded on the effectiveness of the presentation, the difficulty of the research question, and how effectively you analyze the question.

Each student will write a four-page report(s) that must be handed in at the same time as the project is presented. The report should describe the research questions, how you determined to prove or disprove your assertions, any complications that you had to overcome, and your conclusions.

Examples of projects:

- Prove that the private browsing function in web browsers really works in terms of not leaving forensic traces of browsing activity.
- Compare and contrast various ARP poisoning methods, such as how are they different and how long does the ARP poisoning last.
- Demonstrate that disk wiping products really work.

**Schedule:**

Date	Thursday
January 10	Introduction to class.
January 17	Read McClure, chapter 11
January 24	Read McClure, chapter 12
January 31	Read Mitnick, <i>The Art of Intrusion</i> , chapters 1-3.
February 7	Read Mitnick, <i>The Art of Intrusion</i> , chapters 4-6.
February 14	NO CLASS; you may come and work on individual projects.
February 21	Read Mitnick, <i>The Art of Intrusion</i> , chapters 7-8.
February 28	Read Mitnick, <i>The Art of Intrusion</i> , chapters 9-11.
March 7	Spring Break
March 14	Read Schneier, chapters 1-3 Students 1-2 presentations. <b>Your Encrypted Email project should be graded by now (I will dock 10% for each week that you are not done).</b>
March 21	Read Schneier, chapters 4-6 Students 3-4 presentations.
March 28	Read Schneier, chapters 7-9 Students 5-6 presentations.
April 4	Read Schneier, chapters 10-12 Students 7-8 presentations.
April 11	Read Schneier, chapters 13-15 Students 9-10 presentations.
April 18	Read Schneier, chapters 16-17 Students 11-12 presentations.
	<b>NO Final Exam</b>