CprE 531: Information System Security
Department of Electrical and Computer Engineering
Iowa State University

Coordinates:
Fall 2013
ISU: 2:10–3:00 Central Time, Monday, Wednesday, Friday

Instructor:
Thomas Daniels, Department of Electrical and Computer Engineering
206 Nuclear Engineering Laboratory, Iowa State University, Ames, Iowa 50011
Phone: 515–294–8375
daniels@iastate.edu

Office Hours
Dr. Daniels: Tuesday, Wednesday, Thursday 10–11 in NucE 206, Other times by email appointment.

Distance Education: Distance Education students should contact Engineering Online Learning at eoltech@iastate.edu for help with Blackboard issues, problems with streaming video, etc. Distance education students must get an ISU netid for their login.

Prerequisites: Course work in computer operating systems and networks. ISU: ComS 586 or CprE 489 or CprE 530 or MIS 535

Textbook: No Textbook. Selected readings will be assigned on a weekly basis on blackboard. In some cases, students will be expected to find novel papers of interest to themselves on the topic at hand and turn in summaries.

Website: http://bb.its.iastate.edu/

Objectives:
Understand information security concepts, threats, vulnerabilities, and countermeasures.

Understand and apply risk assessment techniques to information systems and their use.

Be able to apply various host and network-based security techniques to enhance the security of computing systems.

Be able to analyze policy models to determine their access control implications.

Grading:
Your grade for the course is based on two or three tests, homework exercises, and a project. Tests amount to half of the grade. Homework will count for the remaining 50% of the grade. The letter grades will be assigned based on the ranges: 100–96=A, 96–92=A-, 80–92=B, 70–80=C, 60–70=D, 0–59=F. The ranges may be lowered to your benefit, but will not be increased. Plus and minus grades will be assigned in the given range. These ranges may be more stringent than what you are used to, but account for the fact that we do usually curve exams. Plus and minus grades will be assigned and the ranges will be spread evenly through the given ranges.

Homework:
ISU: Homework is due on the date stated when assigned. Homework received one day late is worth 80% of the original value. Homework received greater than one day late will not be accepted.

Distance Education: The due date for homework is one week later for Distance Education students because of the delay involved in communication. We do not worry about it being hourly exact.

Homework must be either typewritten or very neatly handwritten. I do not have time to deduce your intentions so make them clear. Illegible homework will not be graded. Be certain to justify your answers and feel free to ask questions of the TA if the questions are ambiguous.

Doing your own homework is important. Discussion of homework is fine and studying together with other students is a good practice. All homeworks must be your own work! Photocopies or very similar turn-ins will result in dramatic loss of points or reviewed as potential academic dishonesty.

Off campus: Homework will be turned in using blackboard. PDF files or text are required at turnin. No microsoft office documents (doc, xls, etc.) will be accepted.
Distance Ed Testing  Distance Education Students are required to have a proctor to supervise your exams. Please read over the Proctored Testing for Students (http://www.eol.iastate.edu/proctored-testing-guidelines-for-students/). You must have your potential proctor fill out the following form to be approved: http://www.eol.iastate.edu/proctored-testing-guidelines-for-proctors/

Topic list:

- Fundamental Information Assurance Concepts, Policy: Explicit and Implicit
- Risk Assessment and Management, Information Assurance
- Communications Security: Historical and Modern Cryptography, Various Communication Security Issues
- Malicious Mobile Code: Viruses, Worms, Trojan Horses
- Basic Legal Issues and Ethics

Academic Conduct:  The class will follow Iowa State University’s policy on academic dishonesty. Anyone suspected of academic dishonesty will be reported to the Dean of Students Office. http://www.dso.iastate.edu/ja/academic/misconduct.html

Special Needs  This material can be provided to you in alternative format. Anyone who anticipates difficulties with the content or format of the course due to a physical or learning disability should see me immediately in order to work out a plan. You may also want to contact the Disability Resources (DR) office, located on the main floor of the Student Services Building, Room 1076 or call them at 515-294-7220.

Dead Week  For academic programs, the last week of classes is considered to be a normal week in the semester except that in developing their syllabi faculty shall consider the following guidelines:

- Mandatory final examinations in any course may not be given during Dead Week except for laboratory courses and for those classes meeting once a week only and for which there is no contact during the normal final exam week. Take home final exams and small quizzes are generally acceptable. (For example, quizzes worth no more than 10 percent of the final grade and/or that cover no more than one-fourth of assigned reading material in the course could be given).
- Major course assignments should be assigned prior to Dead Week (major assignments include major research papers, projects, etc.). Any modifications to assignments should be made in a timely fashion to give students adequate time to complete the assignments.
- Major course assignments should be due no later than the Friday prior to Dead Week. Exceptions include class presentations by students, semester–long projects such as a design project in lieu of a final, and extensions of the deadline requested by students.

Harassment and Discrimination  Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U.S. veteran. Any student who has concerns about such behavior should contact his/her instructor, Student Assistance at 515-294-1020, or the Office of Equal Opportunity and Compliance at 515-294-7612.

Religious Accommodation  If an academic or work requirement conflicts with your religious practices and/or observances, you may request reasonable accommodations. Your request must be in writing, and your instructor or supervisor will review the request. You or your instructor may also seek assistance from the Dean of Students Office or the Office of Equal Opportunity and Compliance.

Contact Information  If you feel that any of your rights as a student have been violated email academicissues@iastate.edu.

August 26, 2013