Software flaws—either design flaws or implementation flaws—are the root cause of the security problems so widely observed in recent years. One reason is that most development—design, implementation, and testing—has been concerned primarily with features and has not directly addressed security issues.

The purpose of this course is to investigate security issues in software design and implementation. It will explore both high-level and low-level issues that need to be addressed. This means that it will range over a large area of computer science. The more knowledge one brings to such a course, the more valuable it can be. However, a good understanding of software, say, at the Data Structures (CS 3240) level, should be adequate preparation for this course.

Activities in the course will include readings in the two texts and perhaps other sources and will involve programs experimenting with the concepts encountered in the course.

Grading: The course grade will be computed roughly as follows. (The date of the midterm is subject to change. Any change will be announced in class.)

- Written homework and programs (As assigned) ........................................... 15%
- Midterm (Monday, October 24) ................................................................. 35%
- Final exam (Wednesday, December 7, 9:00–11:50 a.m.) .............................. 50%

Late homework and programs will not be accepted. Homework is to be turned in at the beginning of class on the due date unless the assignment states otherwise.

Written work: Any handwritten work submitted for the course, including in-class tests, must be done in ink!

Advice and Consultation: The programming projects are to be individual efforts, not group efforts. This means that there should be no sharing of code; such sharing constitutes academic dishonesty, as described in the CSUH Catalog. “High level” discussion of algorithms (such as takes place in class) is acceptable, but detailed discussion is not. Any essential code included from sample programs must be properly acknowledged in comments. Any work not your own, e.g., results obtained from reference sources or other individuals, should receive appropriate bibliographic citations. Plagiarism will but subject to appropriate penalties, up to and including failure for the course.

Test policy: Students should be prepared to display a current photo id at test times, if asked.

Make-up policy: Make-up tests will be considered only in unusual circumstances, and then only if arrangements have been made in advance.