CSCE 4560 / 5560 Secure e-Commerce

Course Syllabus

Instructor: Ryan Garlick
Office: Research Park F201B (inside CSE dept. office)
Email: garlick@unt.edu
Office Hours: Wednesdays 2:00 – 3:00 or by appointment
Web: http://www.cs.unt.edu/~garlick
http://moodle.cse.unt.edu The class materials are available on Moodle

Textbook: Secure Electronic Commerce, 2nd Edition by Ford and Baum ISBN: 0-13-027276-0

Topics

This course covers electronic commerce technology, models and issues, with emphasis on security. Supporting technology such as cryptography, digital signatures, certificates and public key infrastructure (PKI) and security-conscious programming for web-based applications are explored. Exposure is also given to interaction between technical issues and business, legal and ethical issues.

Prerequisites: CSCE 2110 Computer Science Foundations II. This pre-requisite is enforced.

Course Outcomes:

- Knowledge of and experience with secure web development, with exposure to at least three current technologies (such as XML, Perl, PHP, ASP, JSP, JavaScript, etc.)
- Knowledge of how cryptography can be used to support confidentiality and integrity of electronic transmissions and transactions.
- Knowledge of electronic transaction and payment systems.
- Knowledge of Public Key Infrastructure (PKI) settings and trust models, with specific systems such as X.509 certificates and PGP's decentralized web of trust.
- Familiarity with basic network and system security, and the ability to set up a typical electronic commerce setting of networks and hosts.
- Familiarity with business, legal, and ethical issues related to electronic commerce, and the interaction of these issues with technical issues.

Evaluation

Project: You will form a group and create a secure e-commerce site. You must use Google Code for source control.

No late assignments of any kind are accepted unless there is a verifiable emergency situation. No exceptions.

Approximate Course Grading (subject to change)

Midterm Presentation	30%
Participation in Group	30%
Final Project	40%

The final course grade will be based on the following scale:

90 – 100 **A** 80 – 89 **B** 70 – 79 **C** 60 – 69 **D** Below 60 **F**

Tentative Lecture Schedule

Week	Topics
1	**Introduction and Tools**
2	**Platform Selection**
3	**Site Security**
4	**Databases**
5	**Payment / Bitcoin**
6	**Shopping Cart Details**
7	**Development**
8	**Midterm Presentations**
9	**Cryptography**
10	**Vulnerabilities**
11	**Product Feeds / SEO**
12	**Advertising / Business**
13	**Testing / Debugging Forum**
14	**Development**
15	**Final Presentations**

Course Policies

- The Department of Computer Science cheating policy will be followed. Any student caught cheating will receive an automatic F for the course and further disciplinary action may be taken. This will include those who violate the rules, as well as those who permit such actions.
- Students are expected to do their own work on homework/programming assignments. I encourage everyone in the class to discuss the assignments. However, any work/code turned in must be your own.
- All exams including the final will be given only once. If one regular exam is missed WITH AN EXCUSED ABSENCE, the comprehensive final will replace this grade. Only one regular exam grade can be replaced in this way. If more than one regular exam is missed, the second missed exam will be given a grade of 0. The final exam must be taken or a 0 will be given for the final exam.
- Homework assignments must be turned in on time for full credit (on the due date). No assignments may be turned in late.

Americans with Disabilities Act

The Computer Science Department cooperates with the Office of Disability Accommodation to make reasonable accommodations for qualified students (cf. Americans with Disabilities Act and Section 504, Rehabilitation Act) with disabilities. If you have not registered with ODA, we encourage you to do so. If you have a disability for which you require accommodation please discuss your needs with the instructor or submit a written Accommodation Request on or before the fourth class day.