SECURE E-COMMERCE
CSCE 4560.501/5560.501

Course Instructor: Dr. Pradhumna Shrestha
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- Include CSCE 4560.001/5560.001 in subject line
- Always use your official UNT email address

Class Location/Time: FRISCO 112, Mo 6:00 PM - 8:50 PM
Office Hours: TuWeTh 2:00 PM –3:00 PM or by appointment
Instructional Assistant: TBA

COURSE DESCRIPTION
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) are security-conscious programming for web-based applications are explored. Exposure is also given to interaction between technical issues and business, legal and ethical issues.

COURSE OUTCOMES
1. Knowledge of an experience with secure web development, with exposure to at least three current technologies (such as XML, Perl, PHP, ASP, JSP, JavaScript, etc.).
2. Knowledge of how cryptography can be used to support confidentiality and integrity of electronic transmissions and transactions.
3. Knowledge of electronic transaction and payment systems.
4. 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.
5. Familiarity with basic network and system security, and the ability to set up a typical electronic commerce setting of networks and hosts.
6. Familiarity with business, legal, and ethical issues related to electronic commerce, and the interaction of these issues with technical issues.

ABET Program Outcomes
Computer Engineering
1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
4. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
5. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Computer Science
1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.
3. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
4. Apply computer science theory and software development fundamentals to produce computing-based solutions.

Information Technology
1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.
3. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
4. Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation, and administration of computing-based systems.

REFFRENCE TEXTBOOK

PRE-REQUISITES: CSCE 3110.

GRADING
Attendance/Class Participation: 5%
Homework: 15%
Laboratory Exercises: 25%
MidTerm Exam: 15%
Final Project: 25%
Final Exam: 15%
Notes:

ATTENDANCE POLICY

Class attendance is regarded as an obligation as well as a privilege. All students are therefore expected to attend each class meeting. A student who misses class is still responsible to find out what was discussed and to learn the material that was covered and obtain the homework that was assigned on the missed day. The instructor is not responsible for re-teaching material missed by a student who did not attend class. Therefore, each student is accountable for and will be evaluated on all material covered in this course, regardless of attendance.

Attendance/Participation grades will be based on attendance, contribution to in-class discussions, and assessment of any in-class work. Disruptive behavior and unexcused absences deemed excessive will result in a lower attendance/participation grade.

HOMEWORK

Homework will be assigned based on material from the lectures. These assignments are meant for you to become familiar with the course material and this practice will aid you in mastering the concepts on the labs and exams. 25% points will be deducted if you turn in your assignments a day late. You will get only half of the points if you submit your assignment a week late. Assignment turned in after a week without instructor’s approval will receive zero points.

LABORATORY EXERCISES

Students will complete several in-depth hands-on laboratory projects during the semester intended to give a more thorough view of electronic commerce and security. More details about the labs will be made at a later date.

MIDTERM EXAM

There will be a midterm examination given in this course. The tentative date of this exam will be 10/22. The confirmed date and the details of the test will be announced in class at least one week prior to the date of the exam.

FINAL PROJECT

There will be a final project due in this course. Your team will also be required to make a live demonstration of the project, highlighting how each area (such as security) was addressed. More details about this project will be made at a later date.

FINAL EXAM

There will be a comprehensive final exam on December 10 from 6:00 PM to 8:00 PM. All students are expected to take the final exam during the scheduled time period.

GRADING POLICY

Grades will be posted on Canvas throughout the semester to provide an ongoing assessment of student progress, though final assessment will be measured using the weighted average above.

You’ll have to wait 24 hours after a grade has been assigned to dispute the grade.
Also, once a grade is assigned on Canvas, students have two weeks to dispute the grade. The proper channel for grade disputes is to first go to the original grader (such as the TA or IA) in an attempt to resolve the issue. If, however, a resolution cannot be reached between the student and the grader, the student shall then go to the instructor who will have the final say on the grade.

**STUDENT RESPONSIBILITY**

Students are responsible for submitting the correct assignments (i.e., uploading the proper files) for each applicable assignment submission on Canvas. When an incorrect assignment is submitted to Canvas, students wanting to resubmit with the correct file(s) after the due date has passed will have their assignment assessed a 30% reduction penalty. Proof must be given (i.e., timestamp for the file on the CSE machines) that the assignment was completed on time. If you have any questions or concerns about your submission, please work with your instructor or TA/IA for this course to ensure the correct file(s) is/are submitted.

**ADA STATEMENT**

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information, see the Office of Disability Accommodation website at http://disability.unt.edu. You may also contact them by phone at (940) 565-4323.

**ACCEPTABLE STUDENT BEHAVIOR**

Student behavior that interferes with an instructor’s ability to conduct a class or other students’ opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student’s conduct violated the Code of Student Conduct. The university’s expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at http://deanofstudents.unt.edu.

**ACADEMIC DISHONESTY**

This course follows the Department of Computer Science and Engineering Cheating Policy. Specifically, students caught cheating or plagiarizing will receive a “0” for that particular assignment or exam for the first offense. Additionally, the incident may be reported to the Dean of Students, who may impose a further penalty. A second instance of cheating in this class will result in a grade of F in the class, and referral to the Department Chairperson and Dean of Engineering, whereby a dismissal hearing may be initiated by the Dean of Engineering.

Students are responsible for being familiar with the university standard for academic integrity. In the case that the above description or any in-class discussion of appropriate and inappropriate collaboration do not answer all of your questions, please meet with your instructor and look at the university Student Rights and Responsibilities web page.
## TENTATIVE SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Material Covered</th>
</tr>
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<tbody>
<tr>
<td>8/27</td>
<td>Introduction, Infrastructure</td>
</tr>
<tr>
<td>9/3</td>
<td>Labor Day, No Class</td>
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<tr>
<td>9/10</td>
<td>Infrastructure</td>
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<tr>
<td>9/17</td>
<td>Threats &amp; Vulnerabilities</td>
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<tr>
<td>9/24</td>
<td>Threats &amp; Vulnerabilities</td>
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<tr>
<td>10/1</td>
<td>Security Fundamentals</td>
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<td>10/8</td>
<td>Security Fundamentals</td>
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<tr>
<td>10/15</td>
<td>Payment Systems, Review</td>
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<tr>
<td>10/22</td>
<td>Midterm Exam</td>
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<td>10/29</td>
<td>Shopping Cart, Databases</td>
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<tr>
<td>11/5</td>
<td>Design &amp; Deployment</td>
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<td>11/12</td>
<td>Advertising &amp; Business</td>
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<td>11/19</td>
<td>Legal, Ethical, &amp; Tax Issues</td>
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<tr>
<td>11/26</td>
<td>Project Presentations</td>
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<tr>
<td>12/3</td>
<td>Review</td>
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<tr>
<td>12/10</td>
<td>Final Exam</td>
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