

The University of Texas at Tyler
Master of Science in Computer Science

Course Syllabus

Course Number:	COSC 5382
Course Title:	Comprehensive Internet Security
Course Description: This course will introduce the student to the topics of computer security, network security and Web security. It will give detailed coverage of the theory, development and management of highly secure Web applications. Considerable attention will be paid to methods of Web site authentication, authorization, privacy and confidentiality. Students will build a complete ASP.Net 2.0 or ASP.Net 3.0 Web site that will track the progress of a package through multiple shippers.	
Pre-requisites:	COSC 2315 and COSC 2336
Credits:	3 semester hours
Text(s): <i>Professional ASP.Net 2.0</i> , Evjen, et all. Wrox, 2006, ISBN 0-7645-7610-0. <i>Windows Communication Foundation Unleashed (WCF)</i> , McMurtry, Mercuri, Watling, Winkler. Wrox, 2007, ISBN 0-672-32948-4	
Languages Used: (if applicable)	
Topics: Intro to Computer Security Web Application Security Visual Studio and .Net 3.0 ASP.Net Programming ASP Data Management ASP.Net 2.0 Security ASP Operations and Management Web Services Windows Workflow Foundation Authentication and Cardspace .Net 3.0 Security Advanced Web Security for Web Services System Integration and Security	
Additional Materials:	

Evaluation Method: (only items in dark print apply)	
1. Examination/Quiz	2. Homework
3. Paper/Report	4. Computer Program
5. Project	6. Presentation
7. Class Participation	8. Peer Review
9.	10.

Course Objectives¹: By the end of this course students are expected to:
1. Understand the basic concepts of Computer Security. [1,3,4,5].
2. Have detailed understanding of network and Web application security. [1,3,4,5].
3. Have a detailed understanding of how to secure applications in SOA's. [1,3,4,5].
4. Be able to create a reliable and secure Web application. [1,3,4,5].
5. Be able to design a reliable and secure enterprise computing environment. [1,3,4,5].
¹ Numbers in bracket refer to method(s) used to evaluate the course objective.

Relationship to Program Outcomes: (only items in dark print apply)²
This course supports the following computer science graduate program outcomes, which state that our students at the time of graduation are expected to:
1. possess an enhanced breadth of knowledge in computer science, combined with a depth of knowledge in critical core areas of computing; [1,2,3,4,5]
2. possess the skills and knowledge for lifelong learning in computer science; [1,2,3,4,5]
3. possess knowledge of the theoretical foundations of computing and have strong practical application experience; [1,2,3,4,5]
4. posses and demonstrate oral and written communication skills;
5. understand and respect the professional standards of ethics expected of a computer scientist and be knowledgeable concerning the history of computing field;
6. possess a knowledge of computer security and computer security management; [1,2,3,4,5]
7. analyze and compare relative merits of alternative software design, algorithmic approaches, and computer system organization, with respect to a variety of criteria relevant to the task (e. g. efficiency, scalability, security); and [1,2,3,4,5]
8. implement algorithms in multiple programming languages, on multiple hardware platforms, and multiple operating system environments.
² Numbers in brackets refer to course objective(s) that address the Program Outcome.

Prepared By: George Whitson	Date: 11/12/07
Reviewed By:	Date: