NET 3300	Advanced LAN Security Management Fall Semester 2017

Instructor	Matt Paulson WSU Davis Office: 305D SLCC Office: BB 226G Phone: 801-395-3438 (available **TH ONLY**) Email: mattpaulson@weber.edu WSU Davis Office Hours: TH 5:30 – 8:00 PM SLCC Office Hours: MW 4:00 – 5:15 PM
Classroom	SLCC BB 320
Days	MW
Time	5:30 – 6:45 PM
Texts	Selected Readings
Description	This course provides an in depth look into the field of network security. Specific topics to be examined include networking protocols, threats, authentication models, cryptography, layer 2 security, application security, social engineering, access control lists, defense in depth, firewalls, risk management, and OS hardening.
Objectives	• Students will demonstrate knowledge of vulnerabilities, protocols, attacks, and defenses through labs and quizzes. • Students will demonstrate knowledge of current policy, compliance, and risk management through research and writing assignments. • Students will demonstrate their ability to properly defend against common attacks by configuring and securing lab equipment. At the end of this course, the student will: 1. possess an ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline. 2. possess an ability to analyze a problem, and identify and define the computing requirements appropriate to its solution. 3. possess an ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs. 4. possess an understanding of professional, ethical, legal, security and social issues and responsibilities. 5. possess an ability to communicate effectively with a range of audiences. 6. possess an ability to analyze the local and global impact of computing on individuals, organizations, and society.

	7. recognize the need for an ability to engage in continuing professional development. 8. possess an ability to use current techniques, skills, and tools necessary for computing practice.
Class	Class will consist of lectures, discussions, assignments, quizzes and exams. Questions and comments are encouraged. It is expected that students will read the material related to each week's coursework. Attendance and participation will account for 10% of your grade and will be based upon the completion of in-class activities.
Labs and Assignments	You will participate in several in-class labs and exercises. Since these are in-class, attendance is critical for mastering the concepts presented therein. You will also have several reading critiques to complete throughout the semester, dealing with current security topics. The grading breakdown can be found below.
Late Policy	Late work will be accepted with a 20% penalty per day for up to three days to provide for unforeseen circumstances.
Accommodations for Disabilities	Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in room 221 of the Student Services Center at the Davis Campus. SSD can also arrange to provide course materials (including this syllabus) in alternative formats if necessary. You can also call 801-395-3524 or visit http://www.weber.edu/ssd for more details.
Grading	Reading Critiques 20% In-Class 20% Quizzes 20% Exams 40% The final grade will be given based on points accumulated through quizzes, assignments and exams. Standard grading will apply: 94 – 100 A 74 – 76 C 90 – 93 A- 70 – 73 C- 87 – 89 B+ 67 – 69 D+ 84 – 87 B 64 – 67 D 80 – 83 B- 60 – 63 D- 77 – 79 C+ 00 – 59 E
Allocated Time	You should anticipate spending two to three hours of study per week for each credit hour of a university course. Computer and programming classes typically require time in the upper range.
Canvas	This course will have a strong online component via the Canvas course management system. To log on to the course, go to http://canvas.weber.edu, and follow the login instructions. You will

	need your WSU wildcat name and password to log in. You should have already received this information from the admissions department. If you still have problems getting into the course, please email me and I will see if I can resolve the issue. If you are unfamiliar with Canvas, go to https://learn-wsu.uen.org/courses/8878 for a student orientation. Click on the links on the left side of the page. PDF help documents are available at http://departments.weber.edu/ce/distancelearning/CanvasFAQ.aspx
Policies	Exams can only be taken on the days given unless arrangements are made to take them ahead of time.
Course Fees	Course fees are designed to cover the costs of lab equipment maintenance and replacement including desktop and server computer systems and software; consumable materials and supplies; and support for lab aides, student tutors, and online instructional resources.

Academic Honesty	Students are expected to maintain academic ethics and integrity in regards to performing their own work. The WSU Student Code states clarifies cheating.
	1. Cheating, which includes but is not limited to:
	     a. Copying from another student's test paper;
	     b. Using materials during a test not authorized by the person giving the test;
	     c. Collaborating with any other person during a test without authority;
	     d. Knowingly obtaining, using, buying, selling, transporting, or soliciting in whole or in part the contents of any test, without authorization of the appropriate official;
	     e. Bribing any other person to obtain any test;
	     f. Soliciting or receiving unauthorized information about any test;
	     g. Substituting for another student or permitting any other person to substitute for oneself to take a test.
	2. Plagiarism, which is the unacknowledged (uncited) use of any other person or group's ideas or work. This includes purchased or borrowed papers;
	3. Collusion, which is the unauthorized collaboration with another person in preparing work offered for credit;
	4. Falsification, which is the intentional and unauthorized altering or inventing of any information or citation in an academic exercise, activity, or record-keeping process;

	5. Giving, selling or receiving unauthorized course or test information; 6. Using any unauthorized resource or aid in the preparation or completion of any course work, exercise or activity; 7. Infringing on the copyright law of the United States which prohibits the making of reproductions of copyrighted material except under certain specified conditions; NMT Department policy dictates that any verifiable evidence of student academic cheating, as defined and determined by the instructor, will result in: 1) an automatic failing grade for the class and 2) a report to the Dean of Students that will include the student's name and a description of the student's dishonest conduct.
Emergency Closure Policy	Emergency closures will be announced via Code Purple. If WSU campuses are closed for the day, this class will not be held. If for any reason the university is forced to close for an extended period of time, we will conduct our class through Canvas as an online course. Look for announcements through Canvas Announcements and Canvas Conversations.
Contacting Matt	Your best bet to contact me will be through the Canvas portal or email directly. I will do my best to return your message within 1 business day. I consider my office hours to be "drop-in" hours; feel free to stop by at your convenience, or contact me to set an appointment.

TENTATIVE Class Schedule and Course Outline

Week of	Topic	Coursework
28 Aug Week 1	Introduction Introduction of Fundamental Security Concepts Measuring and Weighing Risk	
4 Sept Week 2	LABOR DAY – NO CLASS Measuring and Weighing Risk (cont) Monitoring and Diagnosing Networks	
11 Sept Week 3	Understanding Devices and Infrastructure	
18 Sept Week 4	Access Control, Authentication, and Authorization	
25 Sept Week 5	Access Control, Authentication, and Authorization (cont)	
2 Oct Week 6	Securing the Cloud	
9 Oct Week 7	Host, Data, and Application Security	
16 Oct Week 8	Cryptography	**Midterm Exam 1**
23 Oct Week 9	Cryptography (cont)	
30 Oct Week 10	Malware, Vulnerabilities, and Threats	
6 Nov Week 11	Social Engineering	
13 Nov Week 12	Security Administration	
20 Nov Week 13	Disaster Recovery and Incident Response	
27 Nov Week 14	Ethical Considerations of Security	
4 Dec Week 15	TBA	
11 Dec Week 16	Review Final Exam	Final Exam