CNS 418-801 - Course Syllabus

Course Information:
CNS-418 – Host Based Security – Fall Quarter 2019
Class Time – Mondays 5:45PM - 9:00PM
Meeting Location – CDM 228 (243 S Wabash Ave, Chicago IL, 60604)
Graduate Section - CNS-418 Class Prerequisites – TDC-413
Instruction Type – Lecture with some scheduled lab time (see Course Schedule).

Course Description:
Principles of host based security. Review of security methods used to ensure the confidentiality, integrity, and availability of the information stored on a host. The class will cover network functionality and security basics, OS configuration, access control, anti-malware, public facing application security, host-based intrusion detection/prevention, host-based firewalls and audit & compliance. Course includes lab assignment work with both the Linux and Windows operating systems.

Instructor Information:
Instructor – Kevin Naughton
Office – CDM 342 or Classroom
Office Hours – Mondays 5:00PM to 5:45PM – Other times by appointment.
Mondays for 45 minutes after class
Email – knaught4@depaul.edu

Email Response Policy:
Include your first and last name and the course code in the subject line of emails. I use an email filter to sort the incoming emails I receive from students so that they will not be lost in my inbox. If you do not meet these criteria I do not guarantee that I will respond to you. If you meet these criteria when sending an email, I will respond to you within 24 hours.
Example undergraduate subject line: "CNS-378 – *Your Name* – Question About Lab 2"
Example graduate subject line: "CNS-418 – *Your Name* – Question About Lab 2"

Course Management System:
This course utilizes DePaul's D2L Course management system. Homeworks, quizzes, and labs are expected to be submitted through the appropriate assignment dropbox on D2L. In the event that D2L is inaccessible, an email to me before the deadline will count for full credit. Once D2L is accessible again, the same assignment document will need to be submitted through D2L to ensure that it is subject to plagiarism checking.

Edit date: 01/03/2019

Important Dates:
Relevant Add/Drop/Grading dates are detailed below. A more complete list of dates can be found by viewing the University Academic Calendar, linked in the "University Academic Calendar" section towards the end of this syllabus.

- Fri 1/10/2020 - 11:59 PM Deadline to add classes to WQ2020 schedule
- Fri 1/17/2020 - Last day to drop WQ2020 classes with no penalty
- Fri 1/17/2020 - Last day to select pass/fail option for WQ2020 classes
- Sat 1/18/2020 - Grades of "W" assigned for WQ2020 classes dropped on/after this day
- Mon 1/20/2020 - Martin Luther King Day - **University officially closed – no class**
- Fri 1/24/2020 - Last day to select auditor status for WQ2020 classes
- Sat 2/1/2020 - Begin WQ2020 optional mid-term exam week
- Fri 2/7/2020 - End WQ2020 optional mid-term exam week
- Fri 2/21/2020 - Last day to withdraw from WQ2020 classes
- Fri 2/13/2020 - End WQ2020 Day & Evening Classes
- Sat 2/14/2020 - Begin WQ2020 Day & Evening Final Exams
- Fri 2/20/2020 - END WINTER QUARTER 2020
- Fri 2/20/2020 - End WQ2020 Day & Evening Final Exams
- Fri 2/27/2020 - GRADES DUE: WINTER QUARTER 2020

Textbooks:
There will be no assigned textbook for this class. Books on these topics are available for free at DePaul's Safari Books website. You can find supplemental reading here if you are struggling with a topic and would like a different perspective.

Learning Outcomes:
Upon completion of this course, students will be able to:

- differentiate between and identify common network protocols
- use network diagnostic tools to troubleshoot network and systems problems
- analyze and implement host-based firewall rules on Windows and Linux
- install, configure and manage services on Windows and Linux hosts
- create basic scripts using both PowerShell and bash
- Implement and understand system security best practices

Course Schedule:

Class Date	Topic	Assignments Due (Subject to Change)
Week 1 – 1/6	Network & Systems I	
Week 2 – 1/13	Network & Systems II	
Week 3 – 1/20	**DePaul Closed – No Class**	Quiz 1, Homework 1
Week 4 – 1/27	Linux I / **Lab Session**	
Week 5 – 2/3	Linux II	
Week 6 – 2/10	Midterm	Quiz 2, Homework 2, Lab 1
Week 7 – 2/17	Windows I	
Week 8 – 2/24	Windows II	
Week 9 – 3/2	Security Concepts I	Quiz 3, Homework 3, Lab 2
Week 10 – 3/9	Security Concepts II	
Week 11 – 3/16	Final Presentations	Quiz 4

Edit date: 01/03/2019

Grading Scale:
Grading will be based on the correctness and completeness with which you fulfil the class objectives and assignments. I will grade all assignments on a percentage basis, and will convert that percentage to a letter grade. There is no curve for exams.

Percentage to Letter Grade Conversion:

93.0% - 100%	**A**
90.0% - 92.9%	**A-**
87.0% - 89.9%	**B+**
83.0% - 86.9%	**B**
80.0% - 82.9%	**B-**
77.0% - 79.9%	**C+**
73.0% - 76.9%	**C**
70.0% - 72.9%	**C-**
67.0% - 69.9%	**D+**
63.0% - 66.9%	**D**
60.0% - 62.9%	**D-**
0.0% - 59.9%	**F**

Total Percentage Points per Assignment Type:

Homeworks	30%
Labs	30%
Quizzes	10%
Midterm Exam	15%
Final Presentation	10%
Written Policy	5%

Extra Credit:
Extra credit assignments will be posted on D2L, and will total no more than 10 points in total. Each assignment will be 2-4 points.

Midterm:
The midterm will be an exam consisting of 50 questions. Multiple choice and short answer. Any student who cannot attend the exam in person may take the exam through a proctor. Instructions for organizing a non-DePaul proctor can be found here: https://www.cdm.depaul.edu/onlinelearning/Pages/Exams.aspx

Final Presentation:
There will be a short final presentation in this class on a topic of your choosing. Extra credit will be offered to students who choose to give their presentation early. You are expected to prepare a presentation on a security related topic and present with some visual aid (slide deck or otherwise).

Edit date: 01/03/2019

Assignment Submission Policy:
All assignments are due on their assigned date unless otherwise announced. If there is a change to an assignment due date it will be thoroughly covered in class and posted on D2L. Late assignments will not be accepted. If there is a problem with the submission dropbox on D2L email the assignment to me prior to the deadline and it will count for full credit. If I receive your email after the deadline it will be considered late and count for no credit. If you submit the incorrect assignment via email or the D2L dropbox your submission will not be accepted, and the correct assignment will not be accepted late. Double check your submission to ensure you have submitted the correct file.

Attendance:
There are no points for attendance, but I expect that you will attend all classes. You are responsible for material covered, assignments assigned, and announcements made in class or on D2L. If you miss class, recordings are available on D2L, and it is in your best interest to view the recording prior to attending the next class.

Class Cancellation:
If the University is closed, class will be cancelled. Otherwise, we will have class.

Incompletes:
Students must formally request an incomplete by filling out an incomplete grade request form: cdm.depaul.edu/Student-Resources/Pages/Grading-Policies.aspx

Online Course Evaluations:
Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Students complete the evaluation online in CampusConnect.

Academic Integrity & Plagiarism:
This course is subject to the University's Academic Integrity Policy. I expect that you have read and understand this policy http://academicintegrity.depaul.edu. Consider this policy to be a part of this syllabus. Violations of this policy will be taken extremely seriously.

Academic Policies
All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar.

Edit date: 01/03/2019

Information on enrollment, withdrawal, grading and incompletes can be found at http://www.cdm.depaul.edu/Current%20Students/Pages/PoliciesandProcedures.aspx

University Academic Calendar:
Students are required to manage their schedules each term in accordance with the deadlines defined in the University Academic Calendar https://academics.depaul.edu/calendar.

Students with Disabilities:
Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential. To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at:
Lewis Center 1420, 25 East Jackson Blvd.
Phone number: (312)362-8002
Fax number: (312)362-6544

Emergency Plan:
An emergency can occur at any time, suddenly and without warning. Proper planning is essential to minimize the impact of any emergency on the university community, operations and facilities. The following link provides detailed information on Emergency Evacuation and Fire Alarm safety: https://resources.depaul.edu/emergency-plan/emergency-evacuation/Pages/Evacuation.aspx. The University will use the DPU Alert to announce school closing or other emergencies. In the event of an emergency evacuation, the primary outdoor assembly area for CDM will be Grant Park (Southeast corner of Jackson and Michigan Ave).

Preferred Name & Gender Pronouns:
Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the quarter so that I may make appropriate changes to my records. Please also note that students may choose to identify within the University community with a preferred first name that differs from their legal name and may also update their gender. The preferred first name will appear in University related systems and documents except where the use of the legal name is necessitated or required by University business or legal need. For more information and instructions on how to do so, please see the Student Preferred Name and Gender Policy at http://policies.depaul.edu/policy/policy.aspx?pid=332

Changes to Syllabus:
This syllabus is subject to change as necessary to better meet the needs of the students. Significant changes are unlikely, and will be thoroughly addressed in class. Minor changes, especially to the course agenda, are possible at any time. If a change occurs, it will be thoroughly addressed during class, and posted under Announcements in D2L.

Edit date: 01/03/2019