

CNS 378/418 - Course Syllabus

Course Information:

CNS-378/418 – Host Based Security – Spring Quarter 2020

Class Time – Mondays 5:45PM - 9:00PM

Meeting Location – The Internet

Undergraduate Section - CNS-378 Class Prerequisites – CSC-374 or TDC 363

Graduate Section - CNS-418 Class Prerequisites – TDC-413

Instruction Type – Live Zoom Meetings & Recordings

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 – The Internet

Office Hours – Mondays 5:00PM to 5:45PM

Mondays for 45 minutes after class

Email – knaught4@depaul.edu

Email Response Policy:

Please 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 general inbox. If you meet these criteria when sending an email, I will respond to you within 24 hours. If you do not meet these criteria I do not guarantee that I will respond to you within this window, as I may not see it right away.

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: 03/28/2020

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.

- 4/3/2020 - 11:59 PM Deadline to add classes to SQ2020 schedule
- 4/13/2020 - Last day to drop SQ2020 classes with no penalty
- 4/14/2020 - Last day to select pass/fail option for SQ2020 classes
- 4/14/2020 - Grades of "W" assigned for SQ2020 classes dropped on/after this day
- 4/25/2020 - Begin SQ2020 optional mid-term exam week
- 5/1/2020 - End SQ2020 optional mid-term exam week
- 5/15/2020 - Last day to withdraw from SQ2020 classes
- 5/25/2020 - Memorial Day – **University Officially Closed**
- 6/5/2020 - End SQ2020 Day & Evening Classes
- 6/6/2020 - Begin SQ2020 Day & Evening Final Exams
- 6/12/2020 - END SPRING QUARTER 2020
- 6/12/2020 - End SQ2020 Day & Evening Final Exams
- 6/19/2020 - GRADES DUE: SPRING QUARTER 2020

More information on the SQ2020 Calendar:

<https://academics.depaul.edu/calendar/Pages/default.aspx>

Textbooks:

There is no assigned textbook for this class.

Books on the topics covered in this class 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. <https://proquestcombo.safaribooksonline.com/>

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 – 3/30	Network & Systems I	
Week 2 – 4/6	Network & Systems II	
Week 3 – 4/13	Linux I	Quiz 1, Homework 1
Week 4 – 4/20	Linux II	
Week 5 – 4/27	Linux III	
Week 6 – 5/4	Windows I	Quiz 2, Homework 2, Lab 1, Midterm
Week 7 – 5/11	Windows II	
Week 8 – 5/18	Windows III	
Week 9 – 5/25	Memorial Day – No Class	Quiz 3, Homework 3, Lab 2
Week 10 – 6/1	Security Concepts	
Week 11 – 6/8	Finals Week – No Class	Quiz 4, Final Exam

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%	10% per homework assignment (3 total)
Labs	30%	15% per lab assignment (2 total)
Quizzes	10%	2.5% per quiz (4 total)
Midterm Exam	15%	
Final Exam	15%	

Extra Credit:

Extra credit assignments will be posted on D2L, and will total 15 points in total. No additional extra credit will be created beyond these 15 points. Extra credit points will be added to your average directly. (Ex. If you have an 82/100 in the class, and complete 8 points of extra credit, your average will be a 90/100, not a 90/108).

Midterm & Final:

The midterm and final will be exams consisting of 40 questions each. Multiple choice and short answer. The exams are open note, open internet, and will be made available on d2l. Each exam will cover content from one half of the class, the final exam will not be cumulative.

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 discussed 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:

This quarter is unique because the entire university has shifted to online learning. While there is technically an “in-class” and an “online” section for this class, there is functionally no difference between the two this quarter. Classes will be held live via Zoom on Monday nights 5:45-9:00. You are welcome to attend the Zoom class regardless of which section you are officially in. Similarly, even if you are in the “in-class” section you are not required to be present in the Zoom class if you would prefer to watch the recordings after the fact.

As we all shift to this new format, figure out what works best for you. You are expected to keep up with the class material, but I will not dictate how you watch the class. There are no points for attendance.

Class Cancellation:

If the University is officially closed for a holiday or other reason, class will not be held. 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. 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:

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.