

SYLLABUS

NET 477

Network Security

Spring 2023

March 30, 2023

Instructor:	Dale Buchholz
Class Time:	Thursday 5:45-9:00 pm
Location:	Loop Campus – Lewis 1216
Office Hours:	Thursday 4:45-5:30 pm or by appointment (Zoom)
Phone:	312-362-6819
Office:	CDM 617
E-mail:	dbuchhol@depaul.edu
Prerequisite:	NET 463 or CSC 435
E-Text:	<i>CCNA SECURITY 210-260: Official Cert Guide</i> , Santos, Omar; Stuppi, John, Cisco Press, 2015, ISBN 0-13-407785-7
Optional Text:	<i>CCNA SECURITY 640-554: Live Lessons</i> , Barker, Keith, Pearson IT Certification, 2012, ISBN 0-13-325900-5

Course Summary:

Network infrastructure security issues, including perimeter security defense, firewalls, Virtual Private Networks, Intrusion Detection Systems, wireless security, network security auditing tools and ethical considerations. Strategies for the deployment of "Defense-In-Depth" mechanisms in an enterprise computing environment.

Class Attendance:

Class attendance (sync or async) is strongly recommended. All class sessions will be recorded for asynchronous viewing.

Coursework and Grades:

Required coursework components and their contribution to the final grade will be:

- a) 4 Homeworks (50 pts each; total 200 pts)
- b) 4 Labs (50 pts each; total 200 pts)
- c) Final Design Project (100 pts)

Further details on each assignment will be distributed in class.

Final grades will be calculated as follows: points earned divided by possible points will yield a total course percentage score between 0% and 100%. Letter grades will be assigned as:

Percent	Grade	Percent	Grade
93-100	A	77-79	C+
90-92	A-	73-76	C
87-89	B+	70-72	C-
83-86	B	60-69	D
80-82	B-	< 60	F

Late Assignments:

Late assignments will be accepted solely at the discretion of the instructor. The student MUST notify the instructor in advance if an assignment will be turned in late.

Any Labs or Homeworks submitted late will be penalized as follows: up to 1 day late is 5% penalty; between 1 day and 2 days late is 10% penalty; between 2 days and 3 days late is 15% penalty; between 3 days and 5 days late is 20% penalty. Labs received more than 5 days late get 30% penalty. Homeworks submitted after the Homework Answers have been posted on D2L receive a score of 15/50. Assignments are due by 11:59 pm on the due date unless otherwise indicated. Homework assignments and labs must be completed individually.

Class Schedule and E-Text:

Class dates, topics, readings, and assignments are shown in the Class Schedule below. Each student is enrolled in 2 online CNA courses: CCNAv7 Intro to Networks (ItN) and CCNAv7 Switching, Routing and Wireless Essentials (SRWE). Note: you are not required to complete any quizzes or Packet Tracer Labs in the CCNA course modules (that is, they are not a part of your NET 477 grade).

Class Schedule

NET 477—Spring 2023

(March 30, 2023)

<i>Week</i>	<i>Topics</i>	<i>Readings</i>	<i>Assignments</i>
Week 1 March 30	Security and Networking Overview	Ch. 1, 2	HW0 due April 2
Week 2 April 6	Firewalls 1: Technologies and Filtering	Ch. 4, 9, 10	
Week 3 April 13	Firewalls 2: NAT		Lab 1 due April 16
Week 4 April 20	Firewalls 3: Firewall Architectures		HW 1 due April 23
Week 5 April 27	Cryptography Fundamentals	Ch. 7, 11	Lab 2 due April 30
Week 6 May 4	Cryptography Systems Authentication and PKI	Ch. 5	HW 2 due May 7
Week 7 May 11	Virtual Private Networks	Ch. 8, 10	Lab 3 due May 14
Week 8 May 18	IPSEC VPN Configuration		HW 3 due May 21
Week 9 May 25	Introduction to Intrusion Detection (IDS) and Prevention (IPS)		Lab 4 due May 28
Week 10 June 1	Next Generation Networking		HW 4 due June 4
Week 11 June 8	Security Design Report Due		Thursday, June 8

Changes to Syllabus: This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be thoroughly addressed during class, posted under Announcements in D2L and sent via email.

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. Please see <https://resources.depaul.edu/teaching-commons/teaching/Pages/online-teaching-evaluations.aspx> for additional information.

Academic Integrity and Plagiarism

This course will be subject to the university's academic integrity policy. More information can be found at <https://resources.depaul.edu/teaching-commons/teaching/academic-integrity/Pages/default.aspx>.

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>

Incomplete Grades

An incomplete grade is a special, temporary grade that may be assigned by an instructor when unforeseeable circumstances prevent a student from completing course requirements by the end of the term and when otherwise the student had a record of satisfactory progress in the course. All incomplete requests must be approved by the instructor of the course and a CDM Associate Dean. Only exceptions cases will receive such approval. Information about the Incomplete Grades policy can be found at:

<http://www.cdm.depaul.edu/Current%20Students/Pages/Grading-Policies.aspx>

Students with Disabilities

Students seeking disability-related accommodations are required to register with DePaul's Center for Students with Disabilities (CSD) enabling them to access accommodations and support services to assist with their success. There are two office locations:

- Loop Campus (312) 362-8002
- Lincoln Park Campus (773) 325-1677
- Email: csd@depaul.edu

Students who register with the Center for Students with Disabilities are also invited to contact Dr. Gregory Moorhead, Director of the Center, privately to discuss how he may assist in facilitating the accommodations to be used in a course. This is best done early in the term. The conversation will remain confidential to the extent possible. Please see <https://offices.depaul.edu/student-affairs/about/departments/Pages/csd.aspx> for Services and Contact Information.