
NETWORK SECURITY

CIS 56 (CRN: 33372)

Winter 2020

100% Online Course

COURSE DESCRIPTION

Provides broad-based knowledge and hands-on experience with network security. Security topics include access control, cryptography, policies, physical, network, application, data defenses, auditing and security protocols. Also, course can help prepare students to pass the CompTIA Security+ Certification exam.

PREREQUISITE SKILLS

Advisory: Complete Computer Information Systems 108.

INSTRUCTOR INFORMATION: MARK SHERBY



Office Hours Held: January 6 to March 19
Office hours Physical: Tuesday, Thursday 12:30-1:20 PM *
Office hours Online: Monday, Wednesday 12:30-1:20 PM *
Phone/Voicemail: (408) 864-5471
Office Location: F-51D
E-mail address: Sherbymark@deanza.edu
Website: <https://deanza.instructure.com>

* Online office hours will be available through email, whereas, Physical office hours will be held at De Anza College in room F-51D.

DROP POLICY

1. Students who want to be dropped from the class MUST take the initiative to follow the De Anza College drop procedures. Drop calendar deadlines can be found at <https://www.deanza.edu/calendar>. Do not assume you will be automatically dropped from this course. If you intend to drop the course, you must drop yourself.
2. Drop Deadlines and Drop Policy
 - a. Successfully complete ALL the Week 1 ASSIGNMENTS in Canvas by the end of week 1 (Sunday).
 - b. By **Sunday** OF THE FIRST WEEK OF THE COURSE you log into Canvas and purchase and activate your Jones and Bartlett license as shown in this syllabus below. In a week 1 video, you will explore how to navigate the Jones and Bartlett site, so you'll need to have purchased your materials in the bookstore or directly from Jones and Bartlett publisher **before** Sunday of first week of the quarter.
 - c. Students who do not complete the weekly Jones and Bartlett lab assignments each week will be dropped from the class.

OBJECTIVES

Upon completion of this course, you will be able to use a personal computer and understand the following personal computer objectives.

- A. Explore network security issues
- B. Investigate access control and identity management
- C. Utilize cryptography
- D. Investigate policies, procedures, and awareness
- E. Identify physical security
- F. Explore perimeter defenses
- G. Explore network defenses
- H. Explore host defenses
- I. Identify application defenses
- J. Identify data defenses
- K. Explore security assessments and audits

Student Learning Outcome Statements (SLO)

- **Student Learning Outcome:** Determine methods to protect network against security vulnerabilities.

REQUIRED COURSE MATERIALS

1. There are **three purchase options** for your Jones and Bartlett course materials including virtual labs and textbook bundle. (Purchase using **ONE** these three options below). **Also, Do not purchase these materials below from any other source because they will not include the lab code access and you may have to pay twice.**
 - a. **Online purchase of course virtual labs and physical textbook.**
 - i. Click on this link to purchase your virtual lab access and textbook at the least expensive (discounted rate) directly from the Jones and Bartlett publisher <http://www.jblearning.com/cart/default.aspx?bc=15404-7&Coupon=DZA56>
With this option, a physical textbook will be mailed to you (in postal mail). Please allow at least a week to receive the textbook on this option (order early).
 - b. **Bookstore purchase of eBook & virtual lab option**
 - i. Purchase your Jones and Bartlett access code in the De Anza bookstore - ISBN 978-1-284-15411-5 (Fundamentals of Information Systems Security, Third edition). This more expensive option includes an eBook (rather than physical textbook).
 - c. **Bookstore purchase of Print book & virtual lab option**
 - i. Purchase your Jones and Bartlett lab access code in the De Anza bookstore - ISBN 978-1-284-15404-7 (Fundamentals of Information Systems Security, Third edition). This is the **MOST** expensive option includes a physical textbook instead of eBook.
2. **High speed internet connection** (not dial up) required IF you complete lab assignments at home.

CANVAS INSTRUCTIONS

You will be using the Canvas web portal to view video lectures, complete homework, complete labs, complete online exams. You will not be able to log into your course until the first day of instruction.

Please do NOT turn off Canvas “Announcements”. Students who turn off Announcements are responsible for any information they have missed.

To log on to Canvas go to <https://deanza.instructure.com> and then follow the instructions provided to login.

VIDEO STREAMING INSTRUCTIONS (COURSE LECTURES)

All of the course’s lectures are available for viewing in Canvas. It is highly recommended to view the video lectures multiple times (or rewind) if you are unclear about the material presented. A high-speed Internet connection is needed to view the course’s video streams (Video lectures). If you are connecting from home, this means you will need a fiber, cable or High-speed DSL connection.

COMPUTERS IN THE CIS COMPUTER LAB: (AT203)

Although most students chose to complete their lab assignments on computers at home, all the lab assignments can be completed using our CIS computer lab computers located in AT203. You should submit your homework into Canvas from these computers after completing the assignments.

You may use the lab’s computers any time that the CIS computer lab is open:

For CIS computer lab hours access <http://www.deanza.edu/buscs/lab/hours.html>

ACTIVATE YOUR EBOOK AND VIRTUAL CLOUD LABS

After you have purchased your materials and logged into Canvas, you need to activate your labs and eBook by completing the following steps:

1. **Activate your Virtual labs:** (You will use the course virtual labs to complete the weekly hands-on lab assignments). If you purchased your virtual lab access from the [Jones and Bartlett link](#) provided on page 2 above, you will enter the lab code found on the “Cloudlabs” card you will receive in the mail (Be careful not to accidentally throw it out!). You will enter the “Cloudlabs” code in Canvas after clicking the Lab 2 assignment in Week 3.

If you purchased the virtual lab materials in our [De Anza Bookstore](#), follow the instructions found on the “Cloudlabs” card to activate your Canvas weekly course labs assignments. You will enter the “Cloudlabs” code in Canvas by clicking the Lab 2 assignment in Week 3.

2. **Activate your eBook:** If you purchased the physical textbook option in the bookstore or through the Jones and Bartlett web site, you will use that physical textbook instead of the eBook to complete the weekly reading assignments. If you purchased the bookstore’s ebook option, follow the instructions found in the VitalSource card you purchased in the bookstore which explains how to activate your eBook. Your eBook (or textbook) will be used to complete the required weekly reading assignments.

GROUP DISCUSSIONS

The “Q & A Discussions” in Canvas provides you a way to communicate with others in the class. Using this forum, you will be discussing homework assignments and may post questions that you have about our course. To participate in these discussions, you will first click on the weekly “Q & A Discussions” links in Canvas. You will read the discussion thread, and then click on the “Reply” area to type in your response (see below). When finished typing your response, you will click the “Post Reply” button (shown below) which will post your response to the other class members through email. This is a very simple tool that will allow us to communicate with each other during the quarter!

The screenshot displays the Canvas Q & A Discussion interface. At the top, a light blue banner reads: "Since this is a group discussion, each group has its own conversation for this topic. Here are the ones you have access to:". Below this, a user profile for Mark Sherby is shown with the text: "Participate in Q & A Discussion (Ask Questions or share information with other students) - Optional". A search bar with the placeholder "Search entries or author" and an "Unread" button are visible. A "Reply" button is highlighted with a black arrow. Below the search bar, there are "Previous" and "Next" navigation buttons. Another light blue banner repeats the group discussion information. Below that, the same user profile and search bar are shown. A rich text editor toolbar is visible, including options for bold, italic, underline, text color, background color, bulleted list, numbered list, link, unlink, image, link list, and font size (11pt). The text "When are assignments due?" is entered into the editor. A "Post Reply" button is highlighted with a black arrow, and a "Cancel" button is also visible.

Email me directly at sherbymark@deanza.edu. Reply emails will be returned within 48 hours (not including weekends). However, most emails are returned the same working day!

REQUIRED COMPUTER COMPONENTS AND AVAILABILITY

Hardware Requirements: A Windows PC computer or Macintosh is required to run the Jones and Bartlett software using the latest browsers. However, a Windows PC is optimal for compatibility with the Jones and Bartlett software. If you do not own a PC or Mac, you may use our AT 203 lab computers.

Software: The only software required for this class in the Jones and Bartlett software labs and eBook or textbook.

Computers in CIS Lab:

If you need help with your course, you can use our CIS lab computers. For CIS computer lab hours access <http://www.deanza.edu/buscs/lab/hours.html>

POWERPOINT OVERHEADS

PowerPoint overheads that are presented in the class video lectures are available for download directly within Canvas in the week 1 section. You may view these PowerPoint overheads before or after viewing the video lectures.

TESTING AND GRADING

Scheduled Online Final Exam

The final exam is comprehensive covering the entire course. This multiple choice/True-false final exam will include questions based on course textbook and Interactive Reading Assignments. The multiple-choice final exam must be completed by logging into Canvas and clicking on the "Final Examination" in Week 12. You will be provided with clear instructions on the Canvas final exam page. You will have two hours to complete the open book, open notes final exam. If you have a schedule conflict with the exam dates, please contact me **prior** to the exam to re-schedule. Do not ask for help from others during this exam. To review your final exam in the following quarter, you will need to meet me to review the questions you have missed. The final exam answers will not be provided online. See the Canvas home page for final exam dates and times. Your final course grade will be posted in myportal.deanza.edu.

Exam Grading Scale:

- A+ 100%+
- A 93% - 99.9%
- A- 90%-92%
- B+ 87%-89%
- B 83%-86%
- B- 80%-82%
- C+ 77%-79%
- C 73%-76%
- D+ 67%-72%
- D 63%-66%
- F Below 63%

Final Grade Mix:

The following percentages reflect how the final grade will be determined:

Homework Assignments	5%
Weekly Textbook Chapter Quizzes	10%
Weekly Lab Assignments	40%
Weekly Lab Assessment Quizzes	10%
Final Exam	35%
	=====
	Total = 100%

Extra Credit 3% (can attain A+ grade!)

HOMWORK ASSIGNMENTS

Some weeks will have homework assignments in Canvas. Late homework assignments will only receive ½ credit.

TEXTBOOK/EBOOK CHAPTER QUIZZES

Weekly quizzes will include answering multiple choice and true-false quiz questions. Students will have 60 minutes to complete each quiz. However, quizzes may be **retaken an unlimited number of times** to improve scores through week 11 but must be completed at least once by the Canvas posted Due date (Sunday). Quizzes completed after the 11th week will not be counted towards the final grade. The highest quiz score will be recorded. No feedback will be given on questions missed during this open book, open notes chapter quiz. The final exam will be partially based on these Chapter quiz questions.

LAB ASSESSMENT QUIZZES (BASED ON VIRTUAL CLOUD LABS)

Weekly quizzes will include answering multiple choice and true-false quiz questions. Students will have 60 minutes to complete each quiz. However, quizzes may be **retaken an unlimited number of times** to improve your score through week 11 but must be completed at least once by the Canvas posted Due date (Sunday). Quizzes completed after the 11th week will not be counted towards the final grades. The highest quiz score will be recorded. No feedback will be given on questions missed during this open book, open notes Lab assessment quiz. **The final exam will NOT be based on these Lab Assessment quiz questions.**

LAB ASSIGNMENTS (VIRTUAL CLOUD LABS)

Lab assignments will not be accepted one week beyond their due date found in Canvas. All assignments must be submitted through Canvas. See Canvas for specific lab due dates but most assignments are due the Sunday of the week they are assigned. Late Canvas lab assignments will only receive ½ credit.

ACADEMIC INTEGRITY

If a student is found to have cheated or plagiarized on any particular assignment or examination, the student will receive a failing grade for that assignment or examination, and they will be reported to college authorities.

Students may not install or execute unauthorized software on any De Anza college classroom or lab computers or use unauthorized software to connect to or scan any part of the De Anza College's internal, wi-fi or public network. Such unauthorized actions could lead to expulsion from course, program and/or De Anza College. All course labs and student practice are authorized only within the Jones and Bartlett virtual lab environment. Under no circumstances are students allows to use the De Anza computer network to practice any of the software tools learned in the virtual labs.

EXTRA CREDIT

Extra credit may be found listed within Canvas. The maximum total extra credit awarded for this course is 3%.

DISRUPTIVE ONLINE BEHAVIOR

Disruptive online behavior may include (but is not limited to) the following: discussions that do when not relate to the discussion topic, posting inappropriate comments on discussion forum, monopolizing discussion time, refusing to participate in online activities, and engaging in any other activity not related to the classroom activity. Students who engage in disruptive behavior will be notified by the instructor. If the disruptive behavior continues, students may be asked to stop the disruptive behavior and/or eventually be dropped from the course.

Specific behavior standards for course can be found on the following page:

https://www.deanza.edu/policies/academic_integrity.html

For administrative policies 5510 and 5520 see the following:

<http://fhdafiles.fhda.edu/downloads/aboutfhda/5510ap.pdf>

<http://fhdafiles.fhda.edu/downloads/aboutfhda/5520ap.pdf>

NOTE TO STUDENTS WITH DISABILITIES

If you have a disability-related need for reasonable academic accommodations or services in this course, provide your instructor with a Test Accommodation Verification Form (also known as a TAV form) from Disability Support Services (DSS) or the Educational Diagnostic Center (EDC). Students are expected to give five days notice of the need for accommodations. Students with disabilities can obtain a TAV form from their DSS counselor (864-8753 DSS main number) or EDC advisor (864-8839 EDC main number).

TECHNICAL DIFFICULTIES

If you have technical problems with the Jones and Bartlett lab software on your home computer, please contact Jones and Bartlett Technical Support directly at www.jblcourses.com/techsupport or call 1-866-601-4525 OR complete your course work using our computers in the AT203 CIS lab.