Date of last update: 12/20/2014

Network security

CIS 56 (CRN: 33372)
Winter 2015

Fisk, Thursdays 3:30-5:20 in ATC 205,
Office hours: Thursday 2:45-3:30 PM, 5:30-6:00 PM in ATC 203b, and Tuesday 5:00-6:00 (and all other times) via e-mail

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: Computer Information Systems 108.

INSTRUCTOR INFORMATION: LEN FISK

Instructor: Leonard (Len) Fisk

Office Hours: from 2:45-3:30 PM, 5:30-6:00 PM every Thursday, in ATC 203, and from 5:00 to 6:00 every Tuesday - and almost all other times during the week - via e-mail (see below for address). I will hold all office hours beginning on 1/8/2015.

Office Location: ATC 203.

E-mail address: **mailto:fisklen@fhda.edu**

(Alternate: mailto:lenwfisk@gmail.com)

Website: I will post up-to-date information regarding this course at Jones & Bartlett's site for this course. In particular, I will post updates and changes to this syllabus at that site which, like the campus "Catalyst" system, is Moodle-based. You will be accessing this site via https://moodle.jblcourses.com/ . Various other links may be added at this class site, and assignments will be uploaded to it as well. It will be the center point for communications about the course. Effectively, the only fee for a "textbook" will also be included in the fee to buy access to this site.

ATTENDANCE POLICY

Students are required to attend all class meetings every **Thursday, 3:30-5:20PM** in **AT 205**. See drop policy below.

DROP POLICY

Drop Policy: By **midnight**, Wednesday of THE SECOND WEEK OF THE COURSE you must have purchased the text and the lab access, and have logged into the Jones and Bartlett site that provides the Moodle "main office" for the class and the critically important virtual laboratory. **By midnight on Thursday of the second week of class, you will also have completed and turned in (to J&B Moodle) the Week 1 Lab assignment posted on the website** (we will ignore the "challenge" assignments). (Note: This due date and time is 24 hours later than I will expect for all remaining Lab assignments, which will be due at midnight on Wednesday of each week.)

Failure to do so may result in a DROP from the class.

Students who wish to drop this class must follow the De Anza College drop procedures. The 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!

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 OUTCOMES FOR THIS COURSE:

Determine methods to protect network against security vulnerabilities.

REQUIRED COURSE MATERIALS

Textbook: Fundamentals of Information Systems Security, Second Edition, with special virtual lab access, by David Kim and Michael Solomon.

Purchasing text and lab materials: You can purchase access to the virtual labs required for the course **either** (1) online, at Jones & Bartlett, or (2) in person, at the De Anza bookstore. If you would prefer a hard-copy version of the textbook, the bookstore will have a number of copies for purchase (and you can order a copy at Jones & Bartlett, but must wait for your copy to be mailed). Please note that access to the virtual lab is unique for each person and cannot be shared: i.e., **the code you purchase will belong to you and to you alone**.

To buy from the De Anza bookstore: The bookstore will sell you a packet with either **e-book**:
Fundamentals Of Information Systems Security 2E EVB/ VLA/ VLE 2.0 – ISBN# **9781284087987** **($128 net)** or
hard copy text:
Fundamentals Of Information Systems Security 2E Print/ IBC/ VLE 2.0 – ISBN# **9781284074451** **($145 net),**

which will provide you with the access code you need for individual access to the Jones & Bartlett virtual lab site (& e-book or hard-copy book depending upon the option you have chosen).

To buy online: go to http://www.shopjblearning.com, where you will plug the same ISBN numbers shown above into the search field, which will allow you to add the materials to your cart. (Again, please note that this will provide you with the access code which you will use to gain personal access to the virtual lab and to obtain your e-book, if that is your chosen option.) When you check out, the lab access code will be sent to you via e-mail within 24 hours.

To redeem your access code for access to the JBL Virtual Security Cloud Lab, do the following:

1. Go to www.jblcourses.com (NOT moodle.jblcourses.com)
2. Click on "**Redeem an Access Code**" on upper right side of screen
3. Enter the 8 digit lab access code you received and the four digit code for ***this specific section*** - **7641**. Then click **Submit**.
4. Once your access code has been validated, click on the blue **New User Sign Up** link underneath the yellow submit button. You must do the new user "sign-up" before you can enter a username and password.
5. In the **New User** Box type in

    a. **Username** - must contain alphabetical letters, numbers, a hyphen, underscore, period, or @ sign. (DON"T FORGET THIS AS IT MUST BE USED TO GET INTO THIS COURSE!)
    b. **Password** – must contain at least 8 characters, and include one digit, one lower case letter, one upper case letter, and one non-alphanumeric symbol such as"#". For instance, "XER#xes8". (DON"T FORGET THIS AS IT MUST BE USED TO GET INTO THIS COURSE!)
    c. **First Name/Last Name** in appropriate box
    d. **Email**
    e. Click **submit**
    f. You have successfully entered a link to your course on the next screen.
    g. Click on the course name to enter the course.

If your code doesn't work or you are unable register please contact our tech support specific for the

virtual labs and lecture presentations at 1-866-601-4525 or at www.jblcourses.com/techsupport.

J&B Moodle and Virtual Lab Site: As noted above, the J&B site will be used for completing all class assignments.

After you redeem your access code(s) to [1] gain full access the lab, and [2 - perhaps also] to download your text if you purchased an e-book, the fastest way to the J&B Moodle site for this course will be the URL https://moodle.jblcourses.com.

GETTING STARTED IN YOUR COURSE

After your have purchased your course materials as described above, follow the getting started instructions at this link: http://windows.deanza.edu/gettingstarted.pdf

REQUIRED COMPUTER COMPONENTS AND AVAILABILITY

Hardware Requirements: A PC computer is required to run the Jones and Bartlett software. If you do not own a PC, you may use lab computers in AT 203.

Software: The only software required for this class is actually run on the the Jones and Bartlett servers, which will require an up-to-date browser (preferably Mozilla Firefox) for you to access.

Computers in CIS Lab:
If you need help with your course, you can use CIS lab computers. For CIS computer lab hours access **http://www.deanza.edu/buscs/lab/hours.html**

SUBMITTING WEEKLY LAB ASSIGNMENTS

This course uses a Moodle website provided by the publisher, Jones and Bartlett (http://moodle.jblcourses.com). All course information except the text, which includes assignments, homework, course deadlines, etc. will be available to you on-line in your Jones and Bartlett course Moodle web site. When you enter the on-line course site at http://moodle.jblcourses.com, you will see a schedule of topics and Labs, arranged by week, that you will access as the course progresses. The due dates for exams and assignments are subject to change, and if changes occur, will be reflected in this document, which has a "date of last update" field in red at the upper right corner.

"SURPRISE" QUIZZES

Closed-book, "surprise" quizzes will be given at the outset of seven different classes. Students will have 20 minutes to complete each 20-question quiz. The final exam will be based, in part, on these same "surprise" quiz questions.

FINAL EXAM

The 110-question, multiple choice closed-book, closed-notes Final Exam will be based on the homework questions.

LAB ASSIGNMENTS

The required lab assignments can be found in Moodle and are counted toward your grade.

MOODLE PORTAL

The Jones and Bartlett Moodle must be used as the portal for completing all assignments.

TESTING/GRADING POLICIES/FINAL GRADES

To pass this course, you must complete ALL labs, homework, quizzes and Final Exam with the minimum scores shown below. Weekly deadlines for each assignment are posted inside the Jones and Bartlett Moodle web site.

Exams Grading Scale:

A 93% - 100%
A- 90%-92%
B+ 87%-89%
B 83%-86%
B- 80%-82%
C+ 77%-79%
C 70%-76%
D+ 67%-69%
D 63%-66%

WAYS TO EARN POINTS TOWARD A GRADE

This course will require weekly, hands-on lab assignments in which you will be completing and submitting. You will take 7 "surprise" quizzes and a final exam. Finally, in addition to these graded activities, you have the opportunity to earn additional "extra credit" points by researching and presenting additional information about security tools, analyses of current security "exploits" and security issues in the press and on the web to the class. The maximum possible points are summarized in the table shown below.

Source	number	points	total
Laboratory assignments	10	10	100
"Surprise" Quizzes	7	10	70
Final	1	100	100
Extra Credit/Security News	5	10	50
Total points possible (/with Extra Credit):			270 (/320)

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

"Surprise"Quizzes	25.9%
Extra Credit possible	*18.5%* (this is in excess of 100%)
Lab Assignments	37.0%
Final Exam	37.0%
	=====
Total=	100% (118.5% with extra credit)

ACADEMIC INTEGRITY:

Students who submit work of others as their own or cheat on exams or other assignments will receive a failing grade in the course and will be reported to college authorities.

DISRUPTIVE CLASSROOM BEHAVIOR

Disruptive classroom behavior may include (but is not limited to) the following: talking when it does not relate to the discussion topic, sleeping, reading other material (e.g. newspapers, magazines, textbooks, from other classes), eating or drinking, monopolizing discussion time, refusing to participate in classroom activities, leaving cell phones and pagers on, riding unicycles on desks, texting, making rude biological noises, and engaging in any other untoward activity not related to the classroom activity. Students who engage in disruptive behavior will be approached by the instructor. If the disruptive behavior continues.

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 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.

SCHEDULE/CALENDAR

Week	Date	Topic	News/Extra Credit Present?	Reading	Test (1)/ Quiz (5)	Due
1	1/8/2015	Intro, syllabus, Introduction to Information Systems Security	No	Chpt 1		
2	1/15/2015	Changing how People & Businesses Communicate	Yes	Chpt 2	Quiz?	Lab 1
3	1/22/2015	Malicious Attacks, Threats & Vulnerabilities	Yes	Chpt 3	Quiz?	Lab 2
4	1/29/2015	Drivers of Info. Security Business & Access Control	Yes	Chpt 4&5	Quiz?	Lab 3
5	2/5/2015	Security Operations and Administration	Yes	Chpt 6	Quiz?	Lab 4
6	2/12/2015	Auditing, Testing and Monitoring	Yes	Chpt 7	Quiz?	Lab 5
7	2/19/2015	Risk, Response & Recovery	Yes	Chpt 8	Quiz?	Lab 6
8	2/26/2015	Cryptography	Yes	Chpt 9	Quiz?	Lab 7
9	3/5/2015	Networks & Telecommunications	Yes	Chpt. 10	Quiz?	Lab 8
10	3/12/2015	Malicious Code & Activity	Yes	Chpt. 11	Quiz?	Lab 9
11	3/19/2015	Visiting Professionals talk about Security Jobs	Yes			Lab 10
12	3/27/2015	FINAL on Friday from 4:00 to 6:00 PM (120 min)	No	All 11 chapters		