ITSY 1342
Information Technology Security
Fall 2016

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Office Number: (806) 716-2242
Course Name: ITSY 1342.152

Course Description
This course provides instruction in security for network hardware, software, and data, including physical security; backup procedures; relevant tools; encryption; and protection from viruses.

Internet
This is an internet format class. All communication and homework will be completed online using Blackboard and TestOut.

Textbook and Hardware Requirements
We will be using TestOut LabSim for this course, as well as Security + SY0-401 by David Prowse. You will need to purchase an activation code from the SPC bookstore or online at the link mentioned below. Once activated, you will need to enroll in the course mentioned below. Also below is a link to a video with instructions on how to enroll in the LabSim course. This software will provide you with a virtual environment that we will use for labs, homework assignments and exams. It will also provide you with a wealth of information, reading materials, and videos to aid in your learning experience.

LabSim:
Promo Code: 14-232TA
Course Product: TestOut Security Pro 5.0   ISBN: 978-1-935080-44-2
School Name: South Plains College
Instructor Name: Michael Slaughter
Course Name: FA2016-ITSY 1342.152
Purchase Link: http://www.testout.com/home/student-resources/student-purchasing
Instructions Link: http://www.testout.com/home/student-resources/how-to-tutorials
  (View the "Getting Started - Student Accounts Not Activated by Teachers" PDF)

Textbook:
Title: CompTIA Security+ SY0-401 3rd Edition by David L. Prowse
ISBN: 978-0-7897-5333-5

Assumed Knowledge
It is assumed that you possess basic computer skills relating to using the internet, applications and other basic computing tasks. It is also assumed that you have taken or possess the needed knowledge equal to ITNW1325 Fundamentals of Networking and ITSC1325 PC Hardware. If you have not taken those courses, or question your knowledge, please contact me ASAP about how to proceed. It is also assumed that if you run into content you do not understand; you will research that content on your own as well as ask the instructor for assistance.

Software Requirements
Because some of the assignments will be done and submitted outside of class, you will need access to the following programs outside of the classroom:
- Internet Connection and Web Browser (Chrome or IE)
- TestOut Account

Communication
Communication for this class will be conducted through SPC email. All students will be required to check their SPC student email accounts regularly for course updates and announcements. Please include your name, course name, and section number in all email communication. Other important announcements may be given during in class meetings, so attendance is key for complete communication.

Attendance Policy
Attendance is measured by how often you access Blackboard and TestOut. You are required to check in weekly and complete all homework assignments within the due dates indicated. If participation drops or you do not check in for two full weeks, you will be dropped from the class.

Reading/Study Assignments
Mandatory, assigned reading is a requirement for this course. Reading assignments includes all material in the LabSim course content that is assigned for a given week, chapters assigned in the Security+ SY0-401 textbook, and articles posted for online discussions. Study assignments include all lectures in LabSim, demonstrations in LabSim, notes taken from your in-class lectures, and other content presented throughout the course. Although reading/study assignments are not taken for a grade, they are required to be successful in this course.

Online Discussions
Discussions will be posted weekly, and may require information from all of these sources. **Discussions will be up on Monday morning and you are expected to have your initial post up by Thursday evening.** In discussions you are required to post one **300-word** response to the article or question given (unless otherwise specified), and reply to at least two other students. Your replies should be in-depth, analyzing what the other person has said, and expanding upon it. You as the student are also responsible for what you type and how you act on the online discussion board. Any discussion that is degrading, off topic, or offensive will not be tolerated and could result in being dropped with an X or F per the instructor's discretion.

Assignments and Lab Projects
Procrastination will not serve you well in this course. Most assignments will be available through the LabSim software. Each chapter will have several small assignments and labs that will count toward your homework grade. For the TestOut LabSim section assigned, all labs and exams are pulled for homework grades.

There will also small homework assignments and projects that will be assigned periodically throughout the semester. These assignments and/or projects will be announced in class and available in Blackboard. **NO LATE WORK IS ACCEPTED!** In-class labs will also be

completed throughout this course. It is expected that you take care of all equipment and check that equipment in/out with the instructor.

Exams
There will be two exams given in this class, a midterm and a final exam. **Make-up exams will not be given.** If the midterm exam is missed, then the final exam grade will count as both the final and midterm grade. Also, if a student does better on the final than the midterm, I will substitute the final grade as the midterm grade.

Grades
Grades will be calculated as follows:

	Possible Points
Assignments (TestOut Quizzes/Labs)	20%
Discussion Board	20%
Midterm	30%
Final Exam	30%

All assignments are mandatory. **I reserve the right to drop or fail you if homework assignments are frequently missed or incomplete.**

Grades will be available through LabSim (Homework/Exam Grades) and Blackboard. Blackboard grades will show a running average of how you are performing throughout the semester. Blackboard grades will be updated regularly throughout the semester.

Instructional and Outside Course Time Estimation:
Instructional/Lab/Quiz Time: 1hrs/wk x 16wks = 16 hrs
TestOut LabSim Time: 4.25hrs/wk x 16wks = 68 hrs
Midterm Exam Prep: 4 hrs/wk x 2 wks = 8hrs
Final Exam Prep: 4hrs/wk x 3wks = 12 hrs
Security Pro Cert Exam: 2hrs x 1 = 2 hrs
Exam Time: 2hrs/exam x 2 = 4 hrs
Total Course Time = 110 hrs
Total Time/Week = 6.875 hrs

In-Class Computer, Cell Phone and iPod Use
Students will **not** be allowed to surf the web, check their personal e-mail or social media accounts, or do work for any other course while class is in session.

Students will not be allowed to use their cell phones during class. If the student is found using social media, surfing the web, or using their cell phone, they will be asked to leave the class and they will be counted absent for that day. If the incident reoccurs, they will be reported to the dean of students. In cases of emergency, the student is asked to leave the classroom to use their cell phone. **If a student has a cell phone or other device out during an exam, they will be asked to leave and will get a zero for that exam.**

Food and Drinks
No food or drinks are allowed in the Technology Center. Do not bring those to class. If you do, you will be asked to leave class and counted as absent. If this happens more than once you may be dropped from the class.

Drop Policy
You may be dropped from this course for the following reasons:

- Attendance
  - You do not check in to Blackboard for two weeks
- Participation, completion of homework, exams, and team project
  - You have missed 2-3 classes and several homework assignments
  - You have missed several homework assignments
  - You have missed two or more exams without rescheduling with the instructor
- Academic Integrity
  - Cheating, plagiarism, or sharing your work with others
  - Offensive, degrading, or off topic discussion posts

Academic Integrity
It is the aim of the faculty at South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences and possible suspension. Please refer to the SPC General Catalog regarding consequences for cheating and plagiarism. **I reserve the right to administratively drop with an "F" any student whom I suspect of academic dishonesty.**

Do not, under any circumstances, turn in another student's file as your own. Do not, under any circumstances, give your file to anyone else to turn in as their own. Both situations are representative of academic dishonesty and will be treated as such. Disclaimer

Because we will use Blackboard to conduct a portion of this class, please note that the materials you may be accessing in chat rooms, bulletin boards or unofficial web pages are not officially sponsored by South Plains College. The United States Constitution rights of free speech apply to all members of our community regardless of the medium used. We disclaim all liability for data, information or opinions expressed in these forums.

Diversity Statement
In this course, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world, and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should be and can be.

Special Services

4.1.1.2 Disabilities Statement
Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office through the Guidance and Counseling Centers at Reese Center (Building 8) 716-4606, or Levelland (Student Services Building) 716-2577.

Counseling

If at any point in the semester you find yourself having trouble with stress or feel depressed please stop in and see a counselor. Counseling services are available at all campuses. The number for the counseling office is 806-716-2366. Below is a link to SPC's personal counseling services.
http://www.southplainscollege.edu/information-for/current-spc-students/counseling-current/personal-counseling.php

Course Schedule

Week	Date	Chapter
1	Aug 29-Sep 4	TestOut 1.0-2.6 Security + Ch. 1 Online Discussion
2	Sep 5-11	TestOut 2.7-2.15 Security + Ch. 10 Online Discussion
3	Sep 12-18	TestOut 3.0-3.6 Security + Ch. 13 & 14 Online Discussion
4	Sep 19-25	TestOut 4.0-4.5 Security + Ch. 16 Online Discussion
5	Sep 26-Oct 2	TestOut 4.6-4.10 Security + Ch. 16 Online Discussion
6	Oct 3-9	TestOut 5.0-5.6 Security + Ch. 9 Online Discussion
7	Oct 10-16	TestOut 6.0-6.7 Security + Ch. 5 & 7 Midterm Review Online Discussion
8	Oct 17-23	TestOut 6.8-6.14 Security + Ch. 8 MIDTERM EXAM
9	Oct 24-30	TestOut 7.0-7.7 Security + Ch. 6 Online Discussion
10	Oct 31- Nov 6	TestOut 8.0-8.7 Security + Ch. 2 & 3 Online Discussion
11	Nov 7-13	TestOut 9.0-9.6 Security + Ch. 4 Online Discussion
12	Nov 14-20	TestOut 10.0-10.5 Security + Ch. 15 Online Discussion
13	Nov 21-27	TestOut 11.0-11.5 Security + Ch. 11 & 12 Online Discussion Final Exam Review
14	Nov 28-Dec 4	TestOut Security Pro Practice Exam Domain 1-4 Security + Ch. 17

		Final Exam Review
15	Dec 5-11	TestOut Security Pro Practice Exam Domain 5- Security Pro Practice Exam (SECURITY PRO CERT EXAM OPEN IF STANDARDS ARE MET) Final Exam Review
16	Dec 12-15	FINALS

- Dates are subject to change. All homework is due Sunday night at 11:59 PM.

Approximate Time for the Course

The total time for the LabSim Security Pro course is approximately 91 hours and 35 minutes. The time is calculated by adding the approximate time for each section which is calculated using the following elements:

- Video/demo times
- Approximate time to read the text lesson (the length of each text lesson is taken into consideration)
- Simulations (5 minutes assigned per simulation)
- Questions (1 minute per question)

The total amount of LabSim content we will be covering comes to about 69 hours, which breaks down to about 4.5 hours of homework per week, plus time to read the content from the Pearson Security+ Cert Guide and do the Blackboard Discussions. The reason for the intensity in this course, is because this is what the industry expects you to know coming out of school. Dedicate the time to LEARNING the content and you will appreciate it when you graduate. –M. Slaughter

The breakdown for this course is as follows:

Module	Sections	Time	Total	HR:MM
1.0 Introduction				
	1.1 Security Overview	70		
	1.2 Using the Simulator	25	95	1:35
2.0 Access Control and Identity Management				
	2.1 Access Control Models	30		
	2.2 Authentication	60		
	2.3 Authorization	30		
	2.4 Access Control Best Practices	30		
	2.5 Active Directory Overview	30		
	2.6 Windows Domain Users and Groups	50		

2.7 Linux Users	70		
2.8 Linux Groups	20		
2.9 Linux User Security	25		
2.10 Group Policy Overview	35		
2.11 Hardening Authentication 1	90		
2.12 Hardening Authentication 2	30		
2.13 Remote Access	35		
2.14 Network Authentication	70		
2.15 Identity Management	20	625	10:25

3.0 Cryptography			
3.1 Cryptography	45		
3.2 Hashing	35		
3.3 Symmetric Encryption	35		
3.4 Asymmetric Encryption	25		
3.5 Public Key Infrastructure (PKI)	70		
3.6 Cryptography Implementations	40	250	4:10

4.0 Policies, Procedures, and Awareness			
4.1 Security Policies	80		
4.2 Manageable Network Plan	35		
4.3 Business Continuity	20		
4.4 Risk Management	30		
4.5 Incident Response	65		
4.6 Social Engineering	55		

4.7 Certification and Accreditation	40		
4.8 Development	35		
4.9 Employee Management	40		
4.10 Third-Party Integration	20	420	7:00

5.0 Physical Security

5.1 Physical Security	50		
5.2 Hardware Security	20		
5.3 Environmental Controls	45		
5.4 Mobile Devices	40		
5.5 Mobile Device Security Enforcement	40		
5.6 Telephony	25	220	3:40

6.0 Networking

6.1 Networking Layer Protocol Review	65
6.2 Transport Layer Protocol Review	35
6.3 Perimeter Attacks 1	50
6.4 Perimeter Attacks 2	50
6.5 Security Appliances	35
6.6 Demilitarized Zones (DMZ)	30
6.7 Firewalls	40
6.8 Network Address Translation (NAT)	30
6.9 Virtual Private Networks (VPN)	40
6.10 Web Threat Protection	25
6.11 Network Access Control (NAC)	45

6.12 Wireless Overview	60		
6.13 Wireless Attacks	50		
6.14 Wireless Defenses	80	635	10:35
7.0 Network Defenses			
7.1 Network Devices	15		
7.2 Network Device Vulnerabilities	20		
7.3 Switch Attacks	10		
7.4 Router Security	15		
7.5 Switch Security	90		
7.6 Intrusion Detection and Prevention	50		
7.7 SAN Security	30	230	3:50
8.0 Host Defenses			
8.1 Malware	75		
8.2 Password Attacks	20		
8.3 Windows System Hardening	105		
8.4 Hardening Enforcement	35		
8.5 File Server Security	50		
8.6 Linux Host Security	20		
8.7 Static Environment Security	10	315	5:15
9.0 Application Defenses			
9.1 Web Application Attacks	75		
9.2 Internet Browsers	105		

9.3 E-mail	45		
9.4 Network Applications	25		
9.5 Virtualization	55		
9.6 Application Development	75	380	6:20
10.0 Data Defenses			
10.1 Redundancy	65		
10.2 Backup and Restore	55		
10.3 File Encryption	75		
10.4 Secure Protocols	75		
10.5 Cloud Computing	30	300	5:00
11.0 Assessments and Audits			
11.1 Vulnerability Assessment	85		
11.2 Penetration Testing	30		
11.3 Protocol Analyzers	20		
11.4 Log Management	50		
11.5 Audits	40	225	3:45
Security Pro Practice Exams			
Domain 1: Access Control and Identity Management (22 sims)	110		
Domain 2: Policies, Procedures, Awareness (1 sim)	5		
Domain 3: Physical Security (2 sims)	10		
Domain 4: Perimeter Defenses (10 sims)	50		

Domain 5: Network Defenses (7 sims)	35		
Domain 6: Host Defenses (7 sims)	35		
Domain 7: Application Defenses (10 sims)	50		
Domain 8: Data Defenses (6 sims)	30		
Domain 9: Audits and Assessments (5 sims)	25		
Security Pro Certification Practice Exam (15 sims)	90	440	7:20
Security+ Practice Exams			
Domain 1: Network Security (172 questions)	172		
Domain 2: Compliance and Operational Security (128 questions)	128		
Domain 3: Threats and Vulnerabilities (178 questions)	178		
Domain 4: Application, Data and Host Security (70 questions)	70		
Domain 5: Access Control and Identity Management (98 questions)	98		
Domain 6: Cryptography (92 questions)	88		
Security+ Certification Practice Exam (100 questions)	100	834	13:54
SSCP Practice Exams			
Domain 1: Access Control (60 questions)	60		
Domain 2: Security Operations & Administration (64 questions)	64		
Domain 3: Monitoring and Analysis (21 questions)	21		
Domain 4: Risk, Response, and Recovery (38 questions)	38		

Domain 5: Cryptography (90 questions)	90		
Domain 6: Networks and Communications (68 questions)	68		
Domain 7: Malicious Code and Attacks (85 questions)	85		
SSCP Certification Practice Exam (125 questions)	125	551	9:11
Total Time		**5495**	**91:35**