ITSC 1325
Introduction to Personal Computer Hardware
Spring 2016

Instructor: Michael Slaughter
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Office Number: (806) 716-2242
Course Name: ITSC 1325.001
Course Days: Monday
Course Time: 01:00 – 04:20 PM

Course Description
This course is a study of personal computer operating systems. Topics include installation and configuration, file management, memory and storage management, control of peripheral devices, and use of utilities.

Hybrid
This is a hybrid format class. This means we will meet for class once a week, and the remaining part of the course will be online. You must check Blackboard regularly for updates, otherwise you may miss an important announcement. Our in class meeting will be a mix between in class labs and lectures.

Textbook and Hardware Requirements
We will be using TestOut LabSim for this course. 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 PC Pro A+ 220-801 and 220-802
School Name: South Plains College
Instructor Name: Michael Slaughter
Course Name: SP2016-ITSC 1325.001
Purchase Link: http://www.testout.com/home/student-resources/student-purchasing
Video Link: http://www.testout.com/home/student-resources/how-to-tutorials
   (View the "Creating Accounts – Class Enrollment" video)
Instructions Link: http://www.testout.com/home/student-resources/how-to-tutorials/students-not-activated-by-teachers

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:
- A web browser

- Adobe Reader
- Blackboard account
- Microsoft Office

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 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.

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

You will be **dropped** from the course with an "X" or an "F" after **four** absences, or if I feel the objectives cannot be met due to excessive absence. If you are not sure how many absences you have accumulated, please be sure to notify me so that I can provide you with an absentee count.

If you are absent, you are still required to complete the assigned work by the indicated due date. You'll want to be sure to ask a classmate what material you missed on the day you were absent so that you'll be caught up when you return. I will not repeat the information you missed when you return. Frequent tardiness will result in an absence.

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.. 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.

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.

Quizzes

Quizzes will be given throughout the semester. You are required to be in class to take a quiz. No make-up quizzes will be given.

Exams

There will be two exams given in this class, a midterm and a final exam. **<u>Make-up exams will not be given.</u>** 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/Lab Projects	20%
Quizzes	10%
Midterm	30%
Final Exam	40%

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

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:

In-Class Instructional/Lab/Quiz Time: 3.3hrs/wk x 16wks = 52.8 hrs
TestOut LabSim Time: 5.25hrs/wk x 16wks = 84 hrs
Midterm Exam Prep: 4 hrs/wk x 2 wks = 8 hrs
Final Exam Prep: 4hrs/wk x 3wks = 12 hrs
PC Pro Cert Exam: 2hrs x 1 = 2 hrs
Exam Time: 2hrs/exam x 2 = 4 hrs
Total Course Time = 162.8 hrs
Total Time/Week = 10.175 hrs

In-Class Computer, Cell Phone and iPod Use

Students will **<u>not</u>** 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.

<u>Students will not be allowed to use their cell phones during class</u>. 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 have four or more absences
- 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

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	Chapters Covered (All assignments due on the following Sundays by 11:59 PM)
1	Jan 19-24	1.0 Computing Overview
2	Jan 25-31	2.0 PC Technician
3	Feb 1-7	3.0 System Components (3.1-3.5)
4	Feb 8-14	3.0 System Components (3.6-3.10)
5	Feb 15-21	4.0 Peripheral Devices
6	Feb 22-28	5.0 Storage (5.1-5.6) Midterm Review
7	Feb 29 – Mar 6	5.0 Storage (5.7-5.10) Midterm Review
8	Mar 7-13	6.0 Networking MIDTERM EXAM
9	Mar 14-20	SPRING BREAK
10	Mar 21-27	7.0 Printing 8.0 Mobile Devices
11	Mar 28 – Apr 3	9.0 Windows System Management
12	Apr 4-10	10.0 System Implementation
13	Apr 11-17	11.0 File Management
14	Apr 18-24	12.0 Security Final Exam Review
15	Apr 25 – May 1	13.0 Troubleshooting (13.1-13.6) Final Exam Review
16	May 2-8	13.0 Troubleshooting (13.7-13.11) 14.0 Capstone Exercises PC Pro Certification Exam (OPEN IF STANDARDS ARE MET) Final Exam Review
17	May 9-12	FINALS

Approximate Time for the Course

The total time for the LabSim PC Pro course is approximately 111 hours and 6 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. This is the amount of time it would take for a knowledgeable student to complete the lab activity. Plan that the new students will take much longer than this depending upon their knowledge level and computer experience.)
- Questions (1 minute per question)

The breakdown for this course is as follows:

Module	Sections	Time	Minute	HR:MM
1.0 Computing Overview				
	1.1 Course Introduction	10		
	1.2 Using the Simulator	55		
	1.3 Hardware Basics	45		
	1.4 Operating System Basics	45	155	2:35
2.0 PC Technician				
	2.1 Protection and Safety	50		
	2.2 Professionalism	55		
	2.3 PC Tools	20		
	2.4 PC Maintenance	60		
	2.5 Troubleshooting Overview	25	210	3:30
3.0 System Components				
	3.1 Cases, Form Factors, and Power	20		
	3.2 Power Supplies	55		
	3.3 Motherboards and Buses	45		
	3.4 Processors	60		
	3.5 Memory	125		
	3.6 BIOS	90		
	3.7 Expansion Cards	25		
	3.8 Video	30		
	3.9 Audio	55		
	3.10 Cooling	20	525	8:45

4.0 Peripheral Devices			
4.1 Peripheral Devices	25		
4.2 Serial, Parallel, and PS/2	25		
4.3 USB	40		
4.4 IEEE 1394 (Firewire)	15		
4.5 Display Devices	130		
4.6 Device Installation	55	290	4:50
5.0 Storage			
5.1 Storage Devices	55		
5.2 Floppy Drives	25		
5.3 Parallel ATA (IDE)	40		
5.4 Serial ATA	30		
5.5 SCSI	50		
5.6 Optical Media	55		
5.7 File System	115		
5.8 RAID	55		
5.9 Adding Storage	35		
5.10 Disk Optimization	45	505	8:25
6.0 Networking			
6.1 Networking Overview	60		
6.2 Network Hardware	65		
6.3 Networking Media	45		
6.4 Ethernet	15		
6.5 Network Addressing	35		
6.6 IP Configuration	65		
6.7 IP version 6	15		
6.8 Protocols	20		
6.9 802.11 Wireless	65		
6.10 Infrared and Bluetooth	25		
6.11 Internet Connectivity	75		
6.12 SOHO Configuration	65		
6.13 Network Utilites	60		
6.14 HomeGroup	15	625	10:25
7.0 Printing			
7.1 Printers	70		
7.2 Printer Configuration	45		
7.3 Network Printing	40		
7.4 Printing Management	45		
7.5 Printer Maintenance	25	225	3:45

8.0 Mobile Devices			
8.1 Notebook Computers	60		
8.2 Notebook Components	60		
8.3 Notebook Power Management	40		
8.4 Mobile Devices	70	230	3:50
9.0 Windows System Management			
9.1 Windows System Tools	115		
9.2 Preferences and Settings	30		
9.3 Performance Monitoring	30		
9.4 Users and Groups	50		
9.5 Remote Services	50		
9.6 Applications	40		
9.7 Updates	50		
9.8 System Protection	75		
9.9 Virtual Memory	30	470	7:50
10.0 System Implementation			
10.1 Component Selection	30		
10.2 Windows Pre-installation	50		
10.3 Windows Installation	45		
10.4 Post Installation	20		
10.5 Virtualization	70	215	3:35
11.0 File Management			
11.1 File Locations	35		
11.2 Managing Files	110		
11.3 NTFS Permissions	45		
11.4 Shared Folders	70		
11.5 Offline Files	20	280	4:40

12.0 Security

12.1 Best Practices	25		
12.2 Physical Security	60		
12.3 Social Engineering	20		
12.4 BIOS Security	30		
12.5 Malware Protection	70		
12.6 Authentication	90		
12.7 Encryption	30		
12.8 Network Security	45		
12.9 Firewalls	55		
12.10 Proxy Servers	20	445	7:25

13.0 Troubleshooting

13.1 Motherboard, RAM, and CPU Troubleshooting	105		
13.2 Storage Troubleshooting	55		
13.3 Video Troubleshooting	55		
13.4 Network Troubleshooting	115		
13.5 Operating System Troubleshooting	115		
13.6 Windows Recovery	60		
13.7 System Errors	105		
13.8 Security Troubleshooting	25		
13.9 Notebook Troubleshooting	70		
13.10 Printer Troubleshooting	70		
13.11 Device Troubleshooting	40	815	13:35

14.0 Capstone Exercise

14.1 Build a Computer From Scratch	20		
14.2 Troubleshoot a Malfunctioning Computer	20	40	:40

PC Pro Certification Practice Exams

PC Pro Domain 1: Audio (1 sim)	5		
PC Pro Domain 2: CPU (4 sims)	20		
PC Pro Domain 3: Expansion Slots (1 sim)	5		
PC Pro Domain 4: External Devices (5 sims)	25		
PC Pro Domain 5: Memory (4 sims)	20		
PC Pro Domain 6: Motherboard (1 sim)	5		
PC Pro Domain 7: Networking (14 sims)	70		
PC Pro Domain 8: Power Supply (3 sims)	15		
PC Pro Domain 9: Printing (5 sims)	25		
PC Pro Domain 10: Security (8 sims)	40		
PC Pro Domain 11: Storage (13 sims)	65		
PC Pro Domain 12: System Management (9 sims)	45		
PC Pro Domain 13: Video (7 sims)	35		
PC Pro Certification Practice Exam (15 sims)	75	450	7:30

220-801 Practice Exams

Domain 1: PC Hardware (268 questions)	268		
Domain 2: Networking (132 questions)	132		
Domain 3: Laptops (35 questions)	35		
Domain 4: Printers (39 questions)	39		
Domain 5: Operational Procedures (50 questions)	50		
220-801 Certification Practice Exam (90 questions)	90	614	10:14
220-802 Practice Exams			
Domain 1: Operating Systems (213 questions)	213		
Domain 2: Security (78 questions)	78		
Domain 3: Mobile Devices (7 questions)	7		
Domain 4: Troubleshooting (180 questions)	184		
220-802 Certification Practice Exam (90 questions)	90	572	9:32
Total Time	**6666**	**111:06**	