ITSC 1305
Introduction to PC Operating Systems
Summer 2015

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Office Number: (806) 716-2242
Course Name: ITSC 1305.151

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.

Internet Format
This course will be conducted as an internet course. All instruction will be online via Blackboard and TestOut LabSim. Pay close attention to Blackboard for announcements, homework assignments, emails, and other course correspondence. Be sure to follow the course schedule closely as this course will move very fast.

Textbook and Hardware Requirements
We will be using TestOut LabSim 4.0.215 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. This particular LabSim course will also prepare you for the TestOut Windows Client Pro Certification, Windows 7, Configuring 70-680 and Configuring Windows 8.1 70-687.

LabSim:
Promo Code: 14-232TA
Course Product: TestOut Windows Client Pro
School Name: South Plains College
Instructor Name: Michael Slaughter
Course Name: FA2015-ITSC 1305.001
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 "Getting Started - Student Accounts Not Activated by Teachers" PDF)

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 (IE)
- TestOut Account

Assumed Knowledge
It is assumed that you possess basic computer skills relating to using the internet, applications and other basic computing tasks. Further, it is assumed that you have a basic understanding of networking and domain environments, possibly having taken ITNW1325 Fundamentals of Networking and ITSC1325 PC Hardware. 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 via SPC email. All email communication should be sent via the SPC email system. If you need to talk to me face-to-face, let me know in class and we will schedule a time.

Attendance Policy
Attendance will be based on the mount of logins, homework completion, and overall participation. If you miss several homework assignments you risk being dropped for non-participation.

Reading Assignments
Mandatory, assigned reading is a requirement for this course. The majority of the reading will be from within LabSim, however some reading will be assigned outside of LabSim and available on Blackboard.

Assignments and Lab Projects
Procrastination will not server you will 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 class. **NO LATE WORK IS ACCEPTED!**

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/Lab Projects	30%
Midterm	30%
Final Exam	40%

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.

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.

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.

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

ITSC1305: Introduction to PC Operating Systems

WECM Course Catalog

Description: Introduction to personal computer operating systems including installation, configuration, file management, memory and storage management, control of peripheral devices, and use of utilities.

Outcomes: Install, configure, and maintain the operating system; perform basic file management operations; organize and allocate primary and secondary storage; access and control peripheral devices; and run utilities.

Course Competencies:

1. Operating System (OS) Client Overview
   - OS as a client
   - OS interface
2. Student will learn and demonstrate understanding in OS hardware management including:
   - Devices and drivers
   - Display management
   - Disk partitions, volumes, storage spaces, and optimization
   - Removable storage
   - Cloud storage
3. Student will learn and demonstrate understanding in OS network configuration including:
   - IPv4 and IPv6
   - IP address configuration
   - Wireless networking overview and configuration
   - Internet Connection Sharing (ICS) and Windows Firewall
4. Student will learn and demonstrate understanding in OS application management including:
   - Desktop applications and compatibility
   - User Account Control (UAC)
   - Application virtualization
5. Student will learn and demonstrate understanding in system access including:
   - Authentication and authorization
   - Authentication management
   - NTFS permission and resource sharing
   - Printer sharing and management
   - Auditing and encryption

6. Student will learn and demonstrate understanding in OS installation and configuration including:
   - OS versions, installations and upgrades
   - User profile and data migration
   - Virtual hard disk (VHD) overview and installation
   - Client-side virtualization
7. Student will learn and demonstrate understanding in OS system images including:
   - System image overview
   - Image preparation, capture and deployment
   - Domain image deployment
8. Student will learn and demonstrate understanding in mobile computing including:
   - Mobile Networking
   - Network Access Protection (NAP)
   - Virtual Private Network (VPN)
   - DirectAccess and Bitlocker
   - Mobile device security
   - Power management and mobility options
9. Student will learn and demonstrate understanding in system monitoring and maintenance including:
   - Troubleshooting tools overview
   - System Events
   - Performance and resource monitoring
   - Optimization
   - Remote management and assistance
10. Student will learn and demonstrate understanding in OS system protection including:
    - System updates, deployment and management
    - System backup and data recovery
    - System recovery
11. Student will learn and demonstrate understanding in OS security including:
    - Application restriction
    - Secure boot
    - IE security and options
12. Students will undergo a rigorous lab based exam sponsored by TestOut LabSim. This exam is comprehensive and tests students on all learning outcomes listed, as well as the testing standards listed by Microsoft for the MCSA 70-680 and MCSA 70-687 exams.

Course Schedule

WARNING! This is a summer course and is greatly accelerated. The average amount per time per week in the regular semester is around 8 hours per week of homework. IN THE SUMMER THIS IS TRIPLED TO 24 HOURS PER WEEK!

Week	Date	Assignments Due **All lab simulations and section assignments are taken as homework** *(All due by Sunday of week listed by 11:59 PM)*
1	Jun 6-12	• TestOut 1.0 • TestOut 2.0 • TestOut 3.0
2	Jun 13-19	• TestOut 4.0 • TestOut 5.0 • MIDTERM EXAM (Open on the 17th-19th)
3	Jun 20-26	• TestOut 6.0 • TestOut 7.0 • TestOut 8.0
4	Jun 27- Jul 3	• TestOut 9.0 • TestOut10.0
5	Jul 4-10	• TestOut 11.0 • Windows Client Pro Cert Exam (if standards are met) (potential 30 EC points on final exam) • Final Exam Review
6	Jul 11-12	**FINAL EXAM**

Dates are subject to change. All homework is due each Sunday at 11:59 pm.

Approximate Time for the Course

The total time for the LabSim Windows Client Pro course is approximately 70 hours and 45 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 55 hours, which breaks down to about 4 hours of homework per week. 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	Minute	HR:MM
1.0 Course Introduction				
	1.1 Course Introduction	20		
	1.2 Windows as a Client	50		
	1.3 Windows 7 User Interface	25		
	1.4 Windows 8.x User Interface Overview	40	135	2:15
2.0 Hardware Management				
	2.1 Devices and Drivers	60		
	2.2 Display Management	40		
	2.3 Disk Partitions and Volumes	75		
	2.4 Storage Spaces	40		

2.5 Disk Optimization	35		
2.6 Removable Storage	5		
2.7 OneDrive Storage	25	280	4:40
3.0 Network Configuration			
3.1 IPv4	40		
3.2 IPv6	30		
3.3 IP Address Configuration	70		
3.4 Wireless Networking Overview	20		
3.5 Wireless Networking Configuration	55		
3.6 Internet Connection Sharing (ICS)	15		
3.7 Windows Firewall	90	320	5:20
4.0 Application Management			
4.1 Desktop Applications	40		
4.2 User Account Control (UAC)	35		
4.3 Application Compatibility	45		
4.4 Application Virtualization	15		
4.5 Windows Store Applications	30	165	2:45
5.0 DNS			
5.1 Authentication and Authorization	10		
5.2 Authentication Management	80		
5.3 Alternative Authentication Options	40		
5.4 NTFS Permissions	50		
5.5 Resource Sharing	50		
5.6 Libraries and HomeGroups	40		

5.7 Printer Sharing and Management	45		
5.8 Auditing	20		
5.9 Encryption	45		
5.10 BranchCache	30	410	6:50
6.0 Windows Installation			
6.1 Windows Versions	60		
6.2 Windows 7 Installation	30		
6.3 Windows 8.x Installation	60		
6.4 Windows Upgrade	50		
6.5 User Profile and Data Migration	85		
6.6 VHD Installation	55		
6.7 Client-Side Virtualization	50	390	6:30
7.0 System Images			
7.1 Print Servers	10		
7.2 Image Preparation	30		
7.3 Image Capture	25		
7.4 Manual Image Deployment	10		
7.5 Image Servicing	50		
7.6 Domain Image Deployment	35	160	2:40
8.0 Mobile Computing			
8.1 Mobile Device Management	30		
8.2 Network Access Protection (NAP)	10		
8.3 Virtual Private network (VPN)	40		
8.4 DirectAccess	30		

8.5 BitLocker	45		
8.6 BitLocker To Go	20		
8.7 Mobile Device Security	50		
8.8 Power Management	45		
8.9 Mobility Options	65		
8.10 Mobile Networking	20	355	5:55
9.0 Networking			
9.1 Troubleshooting Tools	50		
9.2 System Events	55		
9.3 Performance Monitoring	55		
9.4 Resource Monitoring	35		
9.5 Reliability and Performance Maintenance	20		
9.6 Optimization	35		
9.7 Remote Management	55		
9.8 Remote Assistance	15	320	5:20
10.System Protection			
10.1 System Updates	40		
10.2 Update Deployment and Management	30		
10.3 System Backup	65		
10.4 Windows 7 Data Recovery	35		
10.5 Windows 8.x Data Recovery	30		
10.6 System Recovery	80	280	4:40

11.Security			
11.1 Application Restriction	55		
11.2 Secure Boot	15		
11.3 Internet Explorer	60		
11.4 Internet Options	50		
11.5 Windows Defender	20	200	3:20
Windows Client Pro Practice Exams			
Obj.1: Windows Operating System Installation (2 simulation questions	10		
Obj.2: Access (7 simulation questions)	35		
Obj.3: Applications (2 simulation questions)	10		
Obj. 4: Hardware (6 simulation questions)	30		
Obj. 5: Storage (9 simulation questions)	45		
Obj. 6: Networking (10 simulation questions)	50		
Obj. 7: Printing (1 simulation question)	5		
Obj. 8: System Protection (7 simulation questions)	35		
Obj. 9: Security (10 simulation questions)	50		
Obj. 10: Monitoring (2 simulation questions)	10		
Windows Client Pro Certification Practice Exam (15 simulation questions)	120	400	6:40
MS 70-680 Practice Exams			
Obj.100: Installing, Upgrading, and Migrating to Windows 7 (38 questions)	38		
Obj.200: Deploying Windows 7 (53 questions)	53		
Obj.300: Configuring Hardware and Applications (53 questions)	53		

Obj. 400: Configuring Network Connectivity (78 questions)	78		
Obj. 500: Configuring Access to Resources (71 questions)	71		
Obj. 600: Configuring Mobile Computing (64 questions)	64		
Obj. 700: Monitoring and Maintaining Systems that Run Windows 7 (84 questions)	84		
Obj. 800: Configuring Backup and Recovery Options (31 questions)	31		
70-680 Certification Practice Exam (50 questions)	50	522	8:42
Microsoft 70-687 Practice Exams			
Obj. 100: Installing and Upgrade to Windows 8.1 (36 questions)	36		
Obj. 200: Configure Hardware and Applications (75 questions)	75		
Obj. 300: Configuring Network Connectivity (69 questions)	69		
Obj. 400: Configuring Access to Resources (79 questions)	79		
Obj. 500: Configuring Remote Access and Mobility (70 questions)	70		
Obj. 600: Monitor and Maintain Windows Clients (79 questions)	79		
Obj. 700: Configure Backup and Recovery Options (21 questions)	21		
70-687 Certification Practice Exam (50 questions)	50	443	7:23
	Total Time	**4245**	**70:45**