

# ITSC 1325

## Introduction to Personal Computer Hardware

### Spring 2017

Instructor: Michael Slaughter  
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Office Number: (806) 716-2242  
Course Name: ITSC 1325.001  
Course Days: Monday (Hybrid)  
Course Time: 08:30 – 12:20 PM

### Course Description

Current personal computer hardware including assembly, upgrading, setup, configuration, and troubleshooting.

### 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+ 220-901 and 220-902  
School Name: South Plains College  
Instructor Name: Michael Slaughter  
Course Name: SP2017-ITSC1325.001  
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:

- Google Chrome Web Browser
- TestOut account

## **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.

## **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.

## Instructional and Outside Course Time Estimation:

In-Class Instructional/Lab/Quiz Time:  $3.3\text{hrs/wk} \times 16\text{wks} = 52.8\text{ hrs}$

TestOut LabSim Time:  $5.25\text{hrs/wk} \times 16\text{wks} = 84\text{ hrs}$

Midterm Exam Prep:  $4\text{ hrs/wk} \times 2\text{ wks} = 8\text{ hrs}$

Final Exam Prep:  $4\text{hrs/wk} \times 3\text{wks} = 12\text{ hrs}$

PC Pro Cert Exam:  $2\text{hrs} \times 1 = 2\text{ hrs}$

Exam Time:  $2\text{hrs/exam} \times 2 = 4\text{ hrs}$

**Total Course Time = 162.8 hrs**

**Total Time/Week = 10.175 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 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

## **NOTICE**

Texas SB11 (Campus Concealed Carry) does not go into effect for community colleges until August 1st, 2017.

## **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 17 - 22	1.0 Computing Overview
2	Jan 23 - 29	2.0 PC Technician
3	Jan 30 – Feb 5	3.0 System Components (3.1-3.7)
4	Feb 6 - 12	3.0 System Components (3.8-3.14)
5	Feb 13 - 19	4.0 Peripheral Devices
6	Feb 20 – 26	5.0 Storage (5.1-5.6)
7	Feb 27 – Mar 5	5.0 Storage (5.7-5.10) Midterm Review
8	Mar 6 - 12	6.0 Networking (6.1-6.5) MIDTERM EXAM
<b>March 13 - 19 Spring Break</b>		
9	Mar 20 - 27	6.0 Networking (6.6-6.14)
10	Mar 27 – Apr 2	7.0 Printing 8.0 Mobile Devices
11	Apr 3 - 9	9.0 Windows System Management (9.1-9.9)
12	Apr 10 - 16	9.0 Windows System Management (9.10-9.15) 10.0 System Implementation
13	Apr 17 - 23	11.0 File Management
14	Apr 24 - 30	12.0 Security (12.1-12.6) Final Exam Review
15	May 1 - 7	12.0 Security (12.7-12.13) PC Pro Certification Exam (OPEN IF STANDARDS ARE MET) Final Exam Review
16	May 8 - 11	FINALS

## Appendix D: Approximate Time for the Course

The total time for the LabSim for TestOut PC Pro course is approximately **79 hours and 36 minutes**. Time is calculated by adding the approximate time for each section which is calculated using the following elements:

- Video/demo times
- Text Lessons (5 minutes assigned per text lesson)
- Simulations (5 minutes assigned per simulation)
- Questions (1 minute per question)

Additionally, there are approximately another **29 hours and 37 minutes** of Practice Test material at the end of the course.

The breakdown for this course is as follows:

Module	Sections	Time	Videos	Labs	Text	Exams
<b>1.0: Computing Overview</b>						
	1.1: Course Introduction	7	7	0	0	0
	1.2: Using the Simulator	43	33	10	0	0
	1.3: Hardware Basics	54	20	5	15	14
	1.4: Windows Basics	55	35	0	10	10
	1.5: Linux Basics	44	23	10	5	6
	1.6: Mac OS Basics	32	22	0	5	5
	<b>Total</b>	<b>3:55</b>	<b>2:20</b>	<b>0:25</b>	<b>0:35</b>	<b>0:35</b>
<b>2.0: PC Technician</b>						
	2.1: Protection and Safety	45	20	0	15	10
	2.2: Professionalism	22	5	0	5	12
	2.3: PC Tools	22	6	0	5	11
	2.4: PC Maintenance	51	27	5	10	9
	2.5: Troubleshooting Overview	24	7	0	5	12
	<b>Total</b>	<b>2:44</b>	<b>1:05</b>	<b>0:05</b>	<b>0:40</b>	<b>0:54</b>

### 3.0: System Components

3.1: Cases and Form Factors	18	7	0	5	6
3.2: Power Supplies	44	19	5	5	15
3.3: Motherboards and Buses	37	12	5	10	9
3.4: Motherboard Troubleshooting	33	9	10	5	9
3.5: Processors	64	24	10	20	11
3.6: Processor Troubleshooting	33	7	10	5	11
3.7: Memory	46	24	0	10	12
3.8: Memory Installation	65	34	10	10	11
3.9: Memory Troubleshooting	38	12	10	5	11
3.10: BIOS/UEFI	72	43	10	5	14
3.11: Expansion Cards	29	9	5	5	10
3.12: Video	38	12	5	10	11
3.13: Audio	57	26	5	15	11
3.14: Cooling	27	8	0	5	14
<b>Total</b>	<b>10:01</b>	<b>4:06</b>	<b>1:25</b>	<b>1:55</b>	<b>2:35</b>

Module	Sections	Time	Videos	Labs	Text	Exams
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### 4.0: Peripheral Devices

4.1: Peripheral Devices	19	4	5	5	5
4.2: USB	33	8	10	5	10
4.3: IEEE 1394 (FireWire)	22	5	5	5	7
4.4: Display Devices	81	54	5	10	12
4.5: Video Troubleshooting	28	10	5	5	8
4.6: Device Driver Management	67	44	5	10	8
4.7: Device Driver Troubleshooting	41	15	10	5	11

	<b>Total</b>	<b>4:51</b>	<b>2:20</b>	<b>0:45</b>	<b>0:45</b>	<b>1:01</b>
<b>5.0: Storage</b>						
5.1: Storage Devices	26	12	0	5	9	
5.2: SATA	31	14	5	5	7	
5.3: Optical Media	25	15	0	5	5	
5.4: RAID	52	21	10	10	11	
5.5: File Systems	59	34	0	15	10	
5.6: File System Creation	55	34	10	5	6	
5.7: Storage Management	40	22	5	5	8	
5.8: Storage Spaces	36	21	5	5	5	
5.9: Disk Optimization	57	41	5	5	6	
5.10: Storage Troubleshooting	39	14	5	10	10	
	<b>Total</b>	<b>7:00</b>	<b>3:48</b>	<b>0:45</b>	<b>1:10</b>	<b>1:17</b>
<b>6.0: Networking</b>						
6.1: Networking Overview	52	32	0	10	10	
6.2: Network Hardware	43	17	5	10	11	
6.3: Networking Media	45	12	0	20	13	
6.4: Ethernet	23	5	0	10	8	
6.5: IP Networking	40	15	0	10	15	
6.6: IP Configuration	51	25	10	5	11	
6.7: IP version 6	19	6	0	5	8	
6.8: 802.11 Wireless	61	26	10	10	15	
6.9: Infrared, Bluetooth, and NFC	30	16	0	5	9	
6.10: Internet Connectivity	50	17	15	5	13	
6.11: SOHO Configuration	68	37	5	15	11	

6.12: Network Utilities	70	38	20	5	7
6.13: HomeGroup Networking	21	11	0	5	5
6.14: Network Troubleshooting	77	37	10	15	15
<b>Total</b>	<b>10:50</b>	<b>4:54</b>	<b>1:15</b>	<b>2:10</b>	<b>2:31</b>
<b>7.0: Printing</b>					
7.1: Printers	54	19	5	20	10
7.2: Printer Configuration	45	30	5	5	5
7.3: Network Printing	42	27	5	5	5
7.4: Printing Management	43	23	10	5	5
7.5: Printer Maintenance	22	11	0	5	6
7.6: Printer Troubleshooting	40	25	0	5	10
<b>Total</b>	<b>4:06</b>	<b>2:15</b>	<b>0:25</b>	<b>0:45</b>	<b>0:41</b>

Module	Sections	Time	Videos	Labs	Text	Exams
<b>8.0: Mobile Devices</b>						
	8.1: Notebook Computers	32	15	0	10	7
	8.2: Notebook Components	54	34	0	5	15
	8.3: Notebook Power Management	40	14	10	10	6
	8.4: Notebook Troubleshooting	42	12	0	15	15
	8.5: Mobile Devices	35	10	0	15	10
	8.6: Mobile Device Networking	39	19	5	15	0
	8.7: Mobile Device Security	26	16	0	5	5
	8.8: Mobile Device Troubleshooting	25	15	0	5	5
	<b>Total</b>	<b>4:53</b>	<b>2:15</b>	<b>0:15</b>	<b>1:20</b>	<b>1:03</b>
<b>9.0: System Management</b>						
	9.1: Windows System Tools	98	78	0	10	10
	9.2: Preferences and Settings	33	21	0	5	7
	9.3: Performance Monitoring	31	20	0	5	6
	9.4: Users and Groups	75	42	5	15	13
	9.5: Remote Services	69	40	5	15	9
	9.6: Windows Application Management	64	40	5	10	9
	9.7: Linux Application Management	31	16	5	5	5
	9.8: Digital Content Management	27	17	0	5	5
	9.9: Updates	48	31	5	5	7
	9.10: System Backup	69	39	10	5	15
	9.11: System Protection	45	29	5	5	6
	9.12: System Recovery	55	38	5	5	7
	9.13: Virtual Memory	31	15	5	5	6

9.14: Operating System Troubleshooting	56	36	0	10	10
9.15: Windows Boot Errors	84	32	25	15	12
<b>Total</b>	<b>13:36</b>	<b>8:14</b>	<b>1:15</b>	<b>2:00</b>	<b>2:07</b>
<b>10.0: System Implementation</b>					
10.1: Component Selection	21	8	0	5	8
10.2: Windows Pre-installation	48	27	0	10	11
10.3: Windows Installation	50	28	5	5	12
10.4: Post Installation	43	30	0	5	8
10.5: Virtualization	59	38	5	10	6
<b>Total</b>	<b>3:41</b>	<b>2:11</b>	<b>0:10</b>	<b>0:35</b>	<b>0:45</b>
<b>11.0: File Management</b>					
11.1: Windows File Locations	39	19	0	10	10
11.2: Managing Files on Windows	92	53	10	15	14
11.3: NTFS Permissions	46	25	5	5	11
11.4: Shared Folders	67	48	5	5	9
11.5: Linux File Management	60	39	10	5	6
<b>Total</b>	<b>5:04</b>	<b>3:04</b>	<b>0:30</b>	<b>0:40</b>	<b>0:50</b>
<b>12.0: Security</b>					
12.1: Best Practices	38	15	0	10	8
12.2: Incident Response	28	17	0	5	6
12.3: Physical Security	47	28	5	5	9
12.4: Social Engineering	26	12	0	5	9
<b>Module</b>	<b>Sections</b>	<b>Time</b>	<b>Videos</b>	<b>Labs</b>	<b>Text Exams</b>
12.5: BIOS/UEFI Security		34	17	5	5 7
12.6: Malware Protection		64	44	0	10 10

12.7: Authentication	73	40	10	10	13
12.8: File Encryption	52	28	5	10	9
12.9: Network Security	46	22	0	10	14
12.10: Firewalls	45	21	5	10	9
12.11: Proxy Servers	29	11	5	5	8
12.12: VPN	34	16	5	5	8
12.13: Security Troubleshooting	40	16	0	10	14
<b>Total</b>	<b>9:11</b>	<b>4:47</b>	<b>0:40</b>	<b>1:40</b>	<b>2:04</b>

**Total Course Time 79:36**

**Practice Exams**

**A.0: PC Pro Certification Practice Exams**

**Number of Questions Time**

A.2: PC Pro Domain 1: Basic Hardware Components	15	75
A.3: PC Pro Domain 2: Video	4	20
A.4: PC Pro Domain 3: Audio	2	10
A.5: PC Pro Domain 4: External Devices	6	30
A.6: PC Pro Domain 5: Storage	9	45
A.7: PC Pro Domain 6: Networking	14	70
A.8: PC Pro Domain 7: Printing	5	25
A.9: PC Pro Domain 8: Mobile Devices	2	10
A.10: PC Pro Domain 9: System Management	9	45
A.11: PC Pro Domain 10: Security	11	55
A.12: PC Pro Certification Practice Exam	18	90
<b>Total</b>	<b>95</b>	<b>7:55</b>

**B.0: CompTIA 220-901 Practice Exams**

**Number of Questions Time**

B.2: Domain 1: Hardware, All Questions	268	4:28
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B.3: Domain 2: Networking, All Questions	158	2:38
B.4: Domain 3: Mobile Devices, All Questions	27	0:27
B.5: Domain 4: Hardware and Network Troubleshooting, All Questions	159	2:39
B.6: CompTIA 220-901 Certification Practice Exam	90	1:30
<b>Total</b>	<b>702</b>	<b>11:42</b>
<b>C.0: CompTIA 220-902 Practice Exams</b>	<b>Number of Questions</b>	<b>Time</b>
C.2: Domain 1: Windows Operating Systems, All Questions	235	3:55
C.3: Domain 2: Other Operating Systems and Technologies, All Questions	46	0:46
C.4: Domain 3: Security, All Questions	134	2:14
C.5: Domain 4: Software Troubleshooting, All Questions	32	0:32
C.6: Domain 5: Operational Procedures, All Questions	63	1:03
C.7: CompTIA 220-902 Certification Practice Exam	90	1:30
<b>Total</b>	<b>600</b>	<b>10:00</b>
<b>Total Practice Exam Time 29:37</b>		