



Syllabus



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CIT-272: Hardware and Software Troubleshooting

Course Description

- This course covers hardware and software installation, configuration, and troubleshooting. Hardware repair and diagnosis will be addressed, and software patch/fix will also be discussed.

Credit Hours: 3

Prerequisite Courses: None

Prerequisite Skills and Knowledge:

- Basic understanding of computers.
- Ability to utilize the internet to conduct research.

Course Outcomes

Upon completion of this course you should be able to:

1. Get to know the history of the PC and Microsoft® Windows operating systems.
2. Be aware of functions of basic and advanced hardware components in a PC, such as the microprocessor, RAM, BIOS, motherboard PC components such as, USB flash drive, storage devices, and other removable media.
3. Learn to install, configure, maintain, and upgrade PC hardware components.
4. Troubleshoot problems in PC hardware components.
5. Install and maintain PC operating systems, such as Microsoft® Windows, and have a good understanding of basic features of Microsoft® Windows 7 and Microsoft® Windows 10.
6. Understand basic features of a PC CPU.
7. Know to choose proper types of RAM and upgrade RAM for a PC.
8. Learn functions of the motherboard and how to install a motherboard.
9. Understand concepts of file organization and how to upgrade, configure, format, and install a hard drive.
10. Identify types of printers and how to configure and install a printer drive in Windows.
11. Know how to install and upgrade different releases of Microsoft® Windows operating systems.
12. Understand PC networking, enhance network security and identify network threats.
13. Learn basic techniques to maintain, optimize, and troubleshoot Microsoft® Windows

10. Learn basic techniques to maintain, optimize, and troubleshoot Microsoft® Windows operating systems.

Course Textbook

Andrews, J., Dark, J., & West, J. (2020). *CompTIA A+ guide to IT technical support* (10th ed.). Boston, MA: Cengage.

Note: the etextbook will be accessed from MindTap.

Course Technology

No additional technology required for this course.

Grading Scale

Grade	Quality Points Per Credit	Percentage	Score
A	4.0	95% - 100%	950 - 1000
A-	3.7	92% - 94.9%	920 - 949
B+	3.3	89% - 91.9%	890 - 919
B	3.0	85% - 88.9%	850 - 889
B-	2.7	82% - 84.9%	820 - 849
C+	2.3	79% - 81.9%	790 - 819
C	2.0	75% - 78.9%	750 - 789
C-	1.7	72% - 74.9%	720 - 749
D+	1.3	69% - 71.9%	690 - 719
D	1.0	65% - 68.9%	650 - 689

F	.0	0% - 64.9%	0 - 649
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Grading Policies

Your grading policy for your course is dependent on your school and program. Your grading policies can be found in the [IWU Catalog](#).

Letter Grade Equivalencies

Grade	Description of Work
A	Clearly stands out as excellent performance. Has unusually sharp insights into material and initiates thoughtful questions. Sees many sides of an issue. Articulates well and writes logically and clearly. Integrates ideas previously learned from this and other disciplines. Anticipates next steps in progression of ideas. Example "A" work should be of such nature that it could be put on reserve for all cohort members to review and emulate. The "A" cohort member is, in fact, an example for others to follow.
B	Demonstrates a solid comprehension of the subject matter and always accomplishes all course requirements. Serves as an active participant and listener. Communicates orally and in writing at an acceptable level for the degree program. Work shows intuition and creativity. Example "B" work indicates good quality of performance and is given in recognition for solid work; a "B" should be considered a good grade and awarded to those who submit assignments of quality less than the exemplary work described above.
C	Quality and quantity of work in and out of class is average. Has marginal comprehension, communication skills, or initiative. Requirements of the assignments are addressed at least minimally.
D	Quality and quantity of work is below average. Has minimal comprehension, communication skills, or initiative. Requirements of the assignments are addressed at below acceptable levels.
F	Quality and quantity of work is unacceptable and does not qualify the student to progress to a more advanced level of work.

Course Summary

Workshop	Discussion	Assignment	Quiz/Test	Total Points per Workshop
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Workshop One	2/60	2/95	1/40	195
Workshop Two	1/30	2/90	1/30	150
Workshop Three	1/30	1/90	1/30	150
Workshop Four	1/30	1/90	1/30	150
Workshop Five	1/30	2/195	2/130	355
End of Course Survey	--	--	--	10 extra credit
TOTAL	6/180	8/560	6/260	1000

*Number of Activities/Sum Point Totals

Course Assignments

Workshop One

Title	Due Dates	Time	Points
1.1 Quiz: Chapter Readings	Due by the end of the workshop	9.5 hours	40
1.2 Discussion: Experience	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	1.5 hours	30
1.3 Discussion: Intel versus AMD	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	1.5 hours	30
1.4 Assignment: Lab Analysis	Due by the end of the workshop	3 hours	50
1.5 Assignment: Microprocessor	Due by the end of the workshop	1.5 hours	15

and RAM	Due by the end of the workshop	1.5 hours	45
1.6 Exercise: Final Project	Due by the end of Workshop Five	30 minutes	0
Totals		17.5 hours*	195

*These timings are based on estimations of average times to complete each assignment. Actual assignment completion times will vary.

Workshop Two

Title	Due Dates	Time	Points
2.1 Quiz: Chapter Readings	Due by the end of the workshop	9.5 hours	30
2.2 Discussion: First Computer	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	1.5 hours	30
2.3 Assignment: Lab Analysis	Due by the end of the workshop	3 hours	60
2.4 Assignment: Motherboards and Power Supplies	Due by the end of the workshop	1.5 hours	30
Totals		15.5 hours*	150

*These timings are based on estimations of average times to complete each assignment. Actual assignment completion times will vary.

Workshop Three

Title	Due Dates	Time	Points
3.1 Quiz: Chapter Readings	Due by the end of the workshop	10.5 hours	30
3.2 Discussion: Windows Troubleshooting	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	1.5 hours	30
3.3 Assignment: Lab Analysis	Due by the end of the workshop	3 hours	90

		Totals	15 hours*
			150

*These timings are based on estimations of average times to complete each assignment. Actual assignment completion times will vary.

Workshop Four

Title	Due Dates	Time	Points
4.1 Quiz: Chapter Readings	Due by the end of the workshop	10.5 hours	30
4.2 Discussion: Windows Troubleshooting Tools	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	1.5 hours	30
4.3 Assignment: Lab Analysis	Due by the end of the workshop	3 hours	90
	Totals	15 hours*	150

*These timings are based on estimations of average times to complete each assignment. Actual assignment completion times will vary.

Workshop Five

Title	Due Dates	Time	Points
5.1 Quiz: Chapter Readings	Due by the end of the workshop	4.5 hours	30
5.2 Discussion: PC Tech	Post your initial response by the end of the fourth day of the workshop and your two responses by the end of the workshop	1.5 hours	30
5.3 Assignment: Lab Analysis	Due by the end of the workshop	2 hours	60
5.4 Assignment: Final Project	Due by the end of the workshop	4 hours	135
5.5 Quiz: Final Test	Due by the end of the workshop	2 hours	100

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Activity Details

Completion Summary

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Task: View this topic