



Syllabus



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CIT-140: Operating Systems Concepts

Course Description

This course introduces the history of operating systems and several typical operating systems. It teaches basic concepts and important components of microcomputer operating systems. Specific attention will be given to the usage of the Microsoft Windows operating systems.

Credit Hours: 3

Prerequisite Courses: None

Course Outcomes

Upon successful completion of this course, students should be able to:

1. Conduct research on the technical creation and execution of a computer operating system.
2. Develop a computer operating system backup plan.
3. Explain the principles behind sharing functions on a network.
4. Recall basic terminology and concepts related to computer operating systems.
5. Identify common disk storage technologies.
6. Explain storage management tools in different computer operating systems.
7. Apply biblical principles to concepts about operating systems.

Course Topics

- Operating system features and capabilities
- Terminology related to computer operating systems
- File systems
- Upgrades
- Input devices
- Output devices
- Disk sharing
- Printer sharing
- Networking
- Operating system maintenance
- Backups

Course Resources

Tomsho, G. (2017). *Guide to operating systems* (5th ed.). Cengage Learning.

IWU Diversity Statement

IWU, in covenant with God's reconciling work and in accordance with the Biblical principles of our historic Wesleyan tradition, commits to build a community that reflects Kingdom diversity.

We will foster an intentional environment for living, teaching, and learning, which exhibits honor, respect, and dignity. Acknowledging visible or invisible differences, our community authentically values each member's earthly and eternal worth. We refute ignorance and isolation and embrace deliberate and courageous engagement that exhibits Christ's commandment to love all humankind. (2016)

Grading Scale

Grade	Quality Points Per Credit	Percentage	Score
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A	4.0	95%–100%	950–1,000
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	0%–64.9%	0–649

Note: In graduate level courses, a grade of C- or below will require the course to be repeated.

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	Quality Points Per Credit
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.

Note: In graduate-level courses, a grade of C- or below will require the course to be repeated.

Workshop Outlines

Workshop One Outcomes

Upon successful completion of this workshop, students will be able to:

- Identify the most important OSs in history.
- Distinguish between the kinds of OSs.
- Identify the basic features and characteristics of popular OSs.
- Explain basic terminology and concepts related to OSs.
- Critically think and apply new knowledge to solve real-world OS issues.
- Select an OS to conduct research on its creation, marketing, and technical workings.

Workshop One Outline

Title	Due Dates	Time	Points
1.1 Discussion: Your OS History	Initial post due by the fourth day of the workshop; two responses due by the end of the workshop.	6.5 hours	20
1.2 Discussion: Compare and Contrast	Initial post due by the fourth day of the workshop; two responses due by the end of the workshop.	6.5 hours	20
1.3 Quiz	Due by the end of the workshop.	2 hours	25
1.4 Assignment: Case Project One	Due by the end of the workshop.	4 hours	90

1.5 Assignment: Paper Part One	Due by the end of the workshop.	1 hour	10
Totals		20 hours*	165

*These times are only estimates. Actual completion times will vary.

Workshop Two Outcomes

Upon successful completion of this workshop, students will be able to:

- Discuss how file systems for different OSs work.
- Explain basic terminology and concepts related to OSs.
- Explain the overall process of installing and upgrading operating systems.
- Determine the factors involved in making the decision to upgrade.
- Critically think and apply new knowledge to solve real-world OS issues.
- Create an outline for a paper on an OS you have chosen.

Workshop Two Outline

Title	Due Dates	Time	Points
2.1 Discussion: File Systems	Initial post due by the fourth day of the workshop; two responses due by the end of the workshop.	5.5 hours	20
2.2 Discussion: Installing an OS	Initial post due by the fourth day of the workshop; two responses due by the end of the workshop.	5.5 hours	20
2.3 Quiz	Due by the end of the workshop.	2 hours	25
2.4 Assignment: Case Project Two	Due by the end of the workshop.	4 hours	90

2.5 Assignment: Paper Part Two	Due by the end of the workshop.	1 hour	10
Totals		18 hours*	165

*These times are only estimates. Actual completion times will vary.

Workshop Three Outcomes

Upon successful completion of this workshop, students will be able to:

- Describe how OSs interface with input and output devices.
- Discuss popular input device technologies.
- Identify common disk storage technologies.
- Explain storage management tools in different OSs.
- Explain basic terminology and concepts related to OSs.
- Critically think and apply new knowledge to solve real-world OS issues.
- Research resources for a paper on an OS you have chosen.

Workshop Three Outline

Title	Due Dates	Time	Points
3.1 Discussion: Input-Output	Initial post due by the fourth day of the workshop; two responses due by the end of the workshop.	5.5 hours	20
3.2 Discussion: Storage Management	Initial post due by the fourth day of the workshop; two responses due by the end of the workshop.	5.5 hours	20
3.3 Quiz	Due by the end of the workshop.	2 hours	25
3.4 Assignment: Case Project Three	Due by the end of the workshop.	4 hours	90

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3.5 Assignment: Paper Part Three	Due by the end of the workshop.	2 hours	10
Totals		19 hours*	165

*These times are only estimates. Actual completion times will vary.

Workshop Four Outcomes

Upon successful completion of this workshop, students will be able to:

- Identify the differences in high-speed networked communication.
- Discuss the differences in configuring networks in different OSs.
- Explain how social media can threaten your technology.
- Explain the principles behind sharing disks, files, and printers on a network.
- Discuss how network and internet servers are used for vast information-sharing networks.
- Explain basic terminology and concepts related to OSs.
- Critically think and apply new knowledge to solve real-world OS issues.
- Write references for the resources for a paper on an OS you have chosen.

Workshop Four Outline

Title	Due Dates	Time	Points
4.1 Discussion: Communication	Initial post due by the fourth day of the workshop; two responses due by the end of the workshop.	5.5 hours	20
4.2 Discussion: Networks	Initial post due by the fourth day of the workshop; two responses due by the end of the workshop.	5.5 hours	20

4.3 Quiz	Due by the end of the workshop.	2 hours	25
4.4 Assignment: Case Project Four	Due by the end of the workshop.	4 hours	90
4.5 Assignment: Paper Part Four	Due by the end of the workshop.	2 hours	20
Totals		19 hours*	175

*These times are only estimates. Actual completion times will vary.

Workshop Five Outcomes

Upon successful completion of this workshop, students will be able to:

- Explain maintenance on different OSs.
- Discuss backup plans and develop a backup plan.
- Explain basic terminology and concepts related to OSs.
- Critically think and apply new knowledge to solve real-world OS issues.
- Critique an OS through academic writing.
- Describe cultural and ethical aspects of using an operating system based on a biblical framework and worldview.

Workshop Five Outline

Title	Due Dates	Time	Points
5.1 Discussion: Maintenance	Initial post due by the fourth day of the workshop; two responses due by the end of the workshop.	5 hours	20
5.2 Discussion: Backup	Initial post due by the fourth day of the workshop; two responses due by the end of the workshop.	2 hours	20

	END OF THE WORKSHOP.		
5.3 Quiz	Due by the end of the workshop.	2 hours	25
5.4 Assignment: Case Project Five	Due by the end of the workshop.	3 hours	90
5.5 Assignment: Final	Due by the end of the	5 hours	175

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Activity Details

Completion Summary

Task: View this topic