

CST155 Introduction to Operating Systems (3 credit hours) Course Syllabus

Course Description

This course provides the student with extensive hands-on exposure to Windows and non-MS Windows environments. Included are such topics as interface design, disk and memory management, system configurations, multitasking, data sharing, and the network environment. Multiplatform operating systems will be introduced.

Course Learning Outcomes

By the end of this course, you will be able to:

- 1. Demonstrate a sound understanding of the minimum course topics as outlined below:
 - Memory Management
 - Virtual Memory Management
 - Processor Management
 - Process Management
 - Concurrent Processes
 - Device Management
 - File Management
 - Network Operations
 - Network Function Management
 - Operating System Security
 - System Management
 - UNIX, LINUX, MS-DOS
 - Windows Operating System.
- 2. Apply the concepts to install, manage, configure, and uninstall operating systems.
- 3. Discuss and explain O.S. interoperability issues and platform differences.

Prerequisites/Corequisites

CST111

Required Textbook(s) and Resources

Guide to Operating Systems, Tomsho, 5th Edition.

Be sure to also review the weekly **Explore** sections for additional library or web resources. For access to databases, research help, and writing tips, visit the <u>Tiffin University Library</u>.

Time Commitment

Effective time management is possibly the single most critical element to your academic success. To do well in this online class you should plan your time wisely to maximize your learning through the completion of readings, discussions, and assignments. Because of our accelerated, seven-week term, TU online courses are designed with the expectation that you dedicate a little over **six (6)** hours per credit hour to course activities and preparation **each week**. For example, for successful completion of a three-credit, seven-week online course you should reserve roughly **twenty (20) hours per week**.

To help you plan your time and keep you on track toward successful completion, this course maintains a distinctive rhythm for assignment due dates:

- 1. All times assume Eastern Time (GMT-4).
- 2. Weeks begin at 12:00 a.m. ET on Monday and end at 11:55 p.m. ET on Sunday.
- 3. Unless otherwise noted, initial assignments or discussion posts are due by **11:55 p.m. ET** on **Wednesdays**.
- Follow-up discussion posts may be due by 11:55 p.m. ET on Saturdays or by 11:55 p.m. on Sundays, so it is important to pay close attention to the "Due by.." date in each forum assignment.
- 5. Weekly TestOut Assignments and Projects are due by **11:55 p.m. ET** on **Sundays** each week, however, I have provided a *Recommended Progress section to help you pace your progress throughout the week in an effort to help you balance the workload throughout the week.

Learning Activities

Through this course you will be working through weekly assignments within TestOut PC Pro's LabSim. These weekly assignments from the TestOut lab will be graded by chapter. Each chapter is worth a combined score of 35 or more points based off of your scores on all labs, exams, and quizzes in the chapter. It is important that you complete all of the material in each chapter to ensure the best possible grade for the assignment. Additionally, you will have a weekly installation or configuration project assigned in most weeks outside of TestOut.

Discussion Forums afford an opportunity for you to share your findings, thoughts, opinions, and questions with your peers in the course. When a forum is included as part of your weekly learning activities, be sure you pay close attention to the due dates and times for your initial response and for any required secondary responses to classmates.

Remember that I have provided a "Help Someone!" Questions and Answers (Q&A) Forum in the Communication Center as well. This is a great way to ask for or offer help as you work through the learning activities each week as needed. You can subscribe to this forum if you want to be notified when others post questions or responses to this Q&A Forum.

Grading

Activity	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Discussion	1.2 (25)	2.1 (25)	n/a	4.1 (25)	n/a	6.1 (25)	0	100
TestOut Chapter Assignments	1.3 (50) 1.4 (50)	2.2 (50) 2.3 (50)	3.1 (50) 3.2 (50) 3.3 (50)	4.2 (50) 4.3 (50)	5.1 (50) 5.2 (50)	6.2 (50) 6.3 (50) 6.4 (50)	7.1 (50) 7.2 (50)	800

The chart below identifies the individual contributions from each type of activity, per module.

TestOut Capstone Project (Ch. 15)	n/a	n/a	n/a	n/a	n/a	n/a	7.3 (100)	100
Total	125	125	150	125	100	175	200	1000

Grading Scale

A: 90-100% | B: 80-89% | C: 70-79% | D: 60-69% | F: <60%

Торіс	Learning Activities (Due by 11:55 p.m. ET on day designated)
Week 0: Start Here	MON: Complete all tasks on the Orientation Activity Checklist.
Week 1: Computer Basics, OSs, and PC Tech	WED: Initial Post: Activity 1.2.: OS Advantages and Disadvantages (Forum)
	SAT: Second Post: Activity 1.2: OS Advantages and Disadvantages (Forum)
	SUN: Activity 1.3: TestOut PC Pro Chapter 1 (Labs and Quizzes)
	SUN: Activity 1.4: TestOut PC Pro Chapter 2 (Labs and Quizzes)
Week 2:	WED: Activity 2.1: Initial Post: Latest Driver Installation (Forum)
Components & Peripherals	SAT: Activity 2.1: Second Post: Latest Driver Installation (Forum)
	SUN: Activity 2.2: TestOut PC Pro Chapter 3 (Labs and Quizzes)
	SUN: Activity 2.3: TestOut PC Pro Chapter 10 (Labs and Quizzes)
Week 3: Storage & Networking	SUN: Activity 3.1: TestOut PC Pro Chapter 5 (Labs and Quizzes)
	SUN: Activity 3.2: TestOut PC Pro Chapter 11 (Labs and Quizzes)
	SUN: Activity 3.3: Configure and Optimize Linux (Project)

Торіс	Learning Activities (Due by 11:55 p.m. ET on day designated)
Week 4:	WED: Activity 4.1: Initial Post: Comparing Operating Systems
Basics of Operating	SUN: Activity 4.2: TestOut PC Pro Chapter 4 (Labs and Quizzes)
Systems	SUN: Activity 4.3: TestOut PC Pro Chapter 13 (Labs and Quizzes)

	SUN: Second Post: Activity 4.1: Comparing Operating Systems
Week 5: Mobile Devices & Systems Implementation	 SUN: Activity 5.1: TestOut PC Pro Chapter 12 (Labs and Quizzes) SUN: Activity 5.2: TestOut PC Pro Chapter 6 (Labs and Quizzes)
Week 6: File & Systems Management	 WED: Initial Post: Activity 6.1: Understanding File Systems (Forum) SUN: Activity 6.2: TestOut PC Pro Chapter 9 (Labs and Quizzes) SUN: Activity 6.3: TestOut PC Pro Chapter 7 & 8 (Labs and Quizzes) SUN: Activity 6.4: Configure and Organize Windows 10 OS (Project) SAT: Second Post: Activity 6.1: Understanding File Systems (Forum)
Week 7: Security	 SUN: Activity 7.1: TestOut PC Pro Chapter 14 (Labs and Quizzes) SUN: Activity 7.2: TestOut PC Pro Chapter 15 Capstone Exercises SUN: Activity 7.3: TestOut Chapter A - PC Pro Certification Practice Ex. SUN: Email your instructor if you would like to access and take the: TestOut PC Pro Certification Exam

Tips for Success

Successful online learning requires a good deal of self-discipline and self-direction. As seekers of the truth, we should be willing to challenge and review one another's academic work in a spirit of respectful comradery and constructiveness. You should accept constructive feedback as a gift. Your course is a place for you to stretch and grow as you benefit from the expertise, knowledge, experience and diverse perspectives of your instructor and peers. Constructive feedback will challenge you to stretch your own thinking,

thereby expanding your knowledge, understanding and application.

To get the most out of your learning experience, you should actively engage (participate) in **ALL** course activities. Course elements in any given week are arranged chronologically. To complete a week, simply work your way "down the page" through all of the course materials and activities.

Need Help? Get Help! See <u>Where and How to Get Technical Support at Tiffin University</u>.