

Introduction to PC Operating Systems (ITSC 1305)



Credit: 3 semester credit hours (3 hours lecture)

Course Description

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

Required Textbook and Materials

1. Wikiversity IT Fundamentals (link will be provided)

Course Objectives

Upon completion of this course, the student will be able to:

1. Install, configure, and maintain the operating system
2. Perform basic file management operations
3. Organize and allocate primary and secondary storage
4. Access and control peripheral devices
5. Run utilities

Course Outline

1. Introduction
 - a. Compare and contrast notational systems
 - b. Illustrate the basics of computing and processing
 - c. Explain the value of data and information
2. Devices
 - a. Compare and contrast common computing devices and their purposes.
 - b. Compare and contrast common units of measure.
3. Components
 - a. Explain the purpose of common internal computing components.
 - b. Compare and contrast storage types
4. Peripherals
 - a. Given a scenario, set up and install common peripheral devices to a laptop/PC.
 - b. Classify common types of input/output device interfaces.
5. Operating Systems
 - a. Explain the purpose of operating systems
 - b. Compare and contrast components of an operating system
6. Applications
 - a. Explain the purpose and proper use of software
 - b. Compare and contrast general application concepts and uses
 - c. Explain methods of application architecture and delivery models
7. Database Concepts
 - a. Explain database concepts and the purpose of a database
 - b. Compare and contrast various database structures
8. Database Use
 - a. Summarize methods used to interface with databases
 1. Relational methods
 2. Database access methods
 3. Export/import
9. Networking
 - a. Explain basic networking concepts.
 - b. Given a scenario, install, configure and secure a basic wireless network.
10. Internet

- a. Compare and contrast common Internet service types
 - b. Given a scenario, configure and use web browsers
 - c. Explain basic networking concepts
11. Security Concepts
- a. Compare and contrast authentication, authorization, accounting and non-repudiation concepts
 - b. Summarize confidentiality, integrity and availability concerns
12. Security Practices
- a. Explain methods to secure devices and best practices.
 - b. Explain password best practices
- c. Explain common uses of encryption
 - d. Summarize behavioral security concepts
13. Software Development
- a. Compare and contrast programming language categories
 - b. Explain the purpose and use of programming concepts
 - c. Compare and contrast fundamental data types and their characteristics
 - d. Given a scenario, use programming organizational techniques and interpret logic
14. Troubleshooting
- a. Explain the troubleshooting methodology.

Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Evaluation

Final grades will be calculated according to the following criteria:

1. Assignments	30%
2. Discussions	20%
3. Quiz	20%
4. Finals	30%

Course Policies

1. You must log onto Blackboard and access this course a minimum of three times per week.
2. Cheating of any kind will not be tolerated.
3. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an 'F' in the course.
4. Internet Usage – Students are expected to use proper net etiquette while participating in course emails, assignment submissions, and online discussions.

Technical Requirements

The latest technical requirements, including hardware, compatible browsers, operating systems, software, Java, etc. can be found online at:

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Course Syllabus

https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support/Browser_Checker

A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of the online technology and resources.

Disabilities Statement

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)839-2018. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](http://SpecialPopulations-LamarInstituteofTechnology(lit.edu)).

Student Code of Conduct Statement

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu or obtained in print upon request at the Student Services Office.

Starfish

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.



Certification Requirement

CIS majors are required to earn certification in one of the following areas prior to graduation.

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Course Syllabus

- CompTIA ITF+ Certification
- CompTIA Security+ Certification
- CompTIA Linux+ Certification
- Oracle Java Foundations Certification
- Certified Associate in Python Programming