

# Syllabus

**Course Title:** Operating Systems

**Course Code:** CSC-410

**Credit Hours:** 3-0-0-3

## **Text books:**

*Operating Systems: Internals and Design Principles*, William Stallings, Prentice-Hall, 2005, 5/e, ISBN: 0-13-147954-7

## **References :**

*Guide to Operating Systems*, Michael Palmer, Michael Walters, Tom Badgett, Niels Jonker, Course Technology, ©2002, Second Edition, ISBN 0-619-12077-0

*Operating Systems Concepts*, Silberschatz, Galvin, Gagne, John Wiley, ©2003 Sixth Edition, ISBN 0-471-25060-0

**Pre-Requisites:** CEN-312

## **Course Description:**

This introductory course in operating systems provides a description of the concepts that underlie modern operating systems. The fundamental concepts covered in this course are based on those found in existing commercial operating systems in particular UNIX/Linux, and Microsoft Windows.

## **Learning Objectives:**

Upon successful completion, students will be able to :

- Understand the concepts, internal structures and functionality of a modern desktop operating system
- Differentiate between the various Operating Systems (Unix/Linux, Windows 2000/XP) with respect to internal structures and their functionality
- Research and write a professional-quality technical report evaluating comparative features of various operating systems
- Evaluate system resource utilization based on OS design parameters

## **Method of Teaching**

15 weeks (2 hrs per week) of lectures

15 weeks (2 hrs per week) of lab

### **Assessment / Evaluation:**

Lab Assignments	20%
Class Assignments	20%
Midterm Test	30%
Final Exam	30%
Total	100%

### **Course Outline**

<i>Week</i>	<i>Topics/Contents</i>
1	Computer System Overview
2	Operating System Overview
3, 4	File Systems
5-7	Characteristics of Modern Operating Systems
8,9	Memory Management
10,11	Scheduling (Processor Management)
12,13	Input/output Management & Disk Scheduling
14	Distributed Systems, Networking
15	Revision