CENTRAL UNIVERSITY OF KERALA
DEPARTMENT OF COMPUTER SCIENCE
M.Sc. COMPUTER SCIENCE

VALUE ADDED COURSE					
COURSE CODE	COURSE TITLE	CONTACT HRS/WEEK			CREDITS
		LEC	LAB	TUT	
CSC5051	Operating System	2	2	1	Nil

Lec = Lecture, Tut = Tutorial, Lab = Practical

This is an audited/value added **skill development course** and the credits will not be added to marklist.

Course Objective:
The main objective of this course is to impart knowledge on the basic principles of operating system design issues.

By completing this course, students will obtain the following course/learning outcomes:
1. Knowledge gained:
   (i) Management of operating system functionalities (CPU, Memory, File management)
2. Skill gained:
   (ii) Modelling software based on memory requirements
3. Competency gained:
   (iii) Optimal utilization of Operating System.

Prerequisites: Nil

Grading:

Lab implementation	– 25%
Participatory based group Project	– 25%
Assignment/Quiz/presentation	– 25%
Individual project	- 25%

CSC5051 – Operating System

Module 1
Introduction to Operating System (OS): History of OS, functionalities of OS, different types of OS.

Module 2
File Management, Memory Management, virtual memory, CPU Management

Module 3
Interprocess communications, Synchronization, Working with Windows, Linux, Mac OS

Text Books/References:

1. Operating Systems: Principles and Practice, 2nd Edition (2014), by Anderson and Dahlin, Recursive Books, ISBN 978-0985673529
2. Operating System Concepts, 8th Edition (2008), by Silberschatz, Galvin and Gagne, Wiley, ISBN 978-0470128725
3. Understanding the Linux Kernel, 3rd Edition (2008), by Bovet, O'Reilly, ISBN 978-0596005658, (good for projects)
4. Modern Operating Systems, 4th Edition (2014), by Tanenbaum and Bos, Pearson, ISBN 978-0133591620