DEPARTMENT OFCOMPUTER SCIENCE & ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

COURSE PLAN – PART I			
Course Title	Operating Systems		
Course Code	CSLR24	**No. of Credits**	3
Course Code of Pre-requisite subject(s)	CSPC26		
Session	Jan – May 2018	**Section**	A
Name of Faculty	Dr. S. Jaya Nirmala	**Department**	CSE
Email	sjaya@nitt.edu		
Course Type	Core course		

COURSE OBJECTIVES
- To understand the concept of Operating System
- To experience the practical side of the functioning of various blocks in OS

COURSE OUTCOMES (CO)
- Ability to make use of tools for solving synchronization problems
- Ability to compare and contrast various CPU scheduling algorithms
- Ability to understand the differences between segmented and paged memories

Course Outcome (CO)	Aligned Programme Outcome							
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8
Ability to make use of tools for solving synchronization problems	S	M	S	S	S	S	B	M
Ability to compare and contrast various CPU scheduling algorithms	S	S	S	S	S	M	B	M
Ability to understand the differences between segmented and paged memories	M	M	S	M	S	M	B	M

COURSE PLAN – PART II

COURSE OVERVIEW

The goal of this course is to have students understand and appreciate the principles in the design and implementation of operating systems software.

COURSE TEACHING AND LEARNING ACTIVITIES

S.No.	Week	Topic	Type		Mode of Delivery			
			L	T	C&T	PPT	VL/VC	DEMO
1	1	Hands on Unix Commands						√
2	2	Shell programming						√
3	3	Shell Script programming using the commands grep, awk, and sed						√
4	4	Implementation of CPU scheduling algorithms						√
5	5	PThread Programming						√

6	6	Implementation of Synchronization problems using Semaphores							√
7	7	Implementation of Synchronization problems using Message Queues and Shared Memory							√
8	8	Implementation of Banker's Algorithm							√
9	9	Implementation of Memory Management-paging and segmentation							√
10	10	Implementation of Memory Management-Page Placement and Replacement							√
11	11	Disk Scheduling Algorithms							√

ESSENTIAL READINGS

Text Book

1. Silberschatz, Galvin, Gagne, "Operating System Concepts", John Wiley and Sons, 8/E, 2013
2. William Stallings, "Operating Systems – Internals and Design Principles", 8/E, Pearson Publications, 2014
3. Andrew S. Tanenbaum, "Modern Operating Systems", 4/E, Pearson Publications, 2014
4. Remzi H. Arpaci-Dusseau and Andrea C. Arpaci-Dusseau, "Operating Systems: Three Easy Pieces", Version 0.91, freely downloadable from http://pages.cs.wisc.edu/~remzi/OSTEP/

COURSE ASSESSMENT METHODS

S.No.	Mode of Assessment	Week	Duration	% Weightage
1	Continuous Assessment	Every Lab session	3 Hours	40
2	Record	Every Lab session	–	10
3	End Semester Exam	13th week	2 Hours	50
			Total	100

COURSE EXIT SURVEY

1. Students' feedback through class committee meetings
2. Feedback questionnaire collected from students through MIS before end semester examination

COURSE POLICY

1. All the students are expected to attend all the contact hours. Anyhow students who fall short of 75% attendance to the contact hours are not eligible to appear for the final written examination
2. If a student is found using mobile phones or any other gadgets during the tests/ exams, the answer sheet of the student will not be evaluated and he/ she will be awarded ZERO marks for that test/ exam.
3. The Course Coordinator is available for consultation during the time intimated to the students then and there.

FOR APPROVAL

Course Faculty

(Dr. S. JAYA NIRMALA)

Class Committee Chairperson

HoD/ CSE

(Dr. R. LEELA VELUSAMY)