Department of Computer Applications
National Institute of Technology Tiruchirappalli

1. Course Outline			
Course Title	OS Lab		
Course Code	CA704		
Department	Computer Applications	**No. of Credits**	2
Pre-requisites Course Code	CA714 Operating Systems	**Faculty Name**	Dr.S.DOMNIC
CC Chairman	Dr.B.Janet	**Name of Course Co-ordinator**	Dr.P.J.A.Alphonse
E-mail	domnic@nitt.edu	**Telephone No.**	0431-2503743
Course Type	Laboratory Course		

2. Course Syllabus
Exercises are based on the syllabus of the subject CA714 Operating Systems and are given in section 6

3. Course Objectives
• To learn and work with UNIX commands and shell scripts • To learn the functionality of systems calls • To learn the functionality of operating system kernel

4. Course Outcomes (CO)
• Work with various shell commands in operating systems. • Implement kernel functions of OS • Implement Unix commands using system calls.

5. Course Outcome (CO)	Aligned Programme Outcome (PO)											
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
Work with various commands in operating systems.	H		H		H							
Implement kernel functions of OS	H	L	H		H							
Implement various networking principles.	H	M	H		H							

L-Low   M-Medium   H-High

6. Course Content

Week	Topics covered
1.	**Basic UNIX Shell commands**
2.	**Implementation of unix commands in C using system Calls**
3.	**Writing UNIX shell scripts**
4.	**Simulating Process Scheduling algorithms**
5.	**Simulating Inter process communication using PIPE and Fork.**
	Simulating Inter process communication using Message queue.
6.	**Implementation of Memory management algorithms**
7.	**Simulation of Logical to physical Address translation in various Memory management techniques**

Sl. No.	Mode of Assessment	Week/Date	Weightage (%)
1.	Evaluation-1	3rd week	15
2.	Evaluation-2	6th week	15
3.	Evaluation-3	8th week	10
4.	Evaluation-3	10th week	10
5.	Model Examination	11th week	25
6	End Semester Lab	-	25
		Total	100

8. Essential Readings (Textbooks, Reference books, Websites, Journals, etc.)

Reference Books
1. Silberschatz, Galvin and Gagne, "Operating System Concepts", 9th Edition, John Wiley & Sons Inc,2013
2. Behrouz A. Forouzan, " Data Communications and Networking ", 4 th Edition ,McGraw-Hill, 2004

9. Course Exit Survey (mention the ways by which the feedback about the course is assessed and indicate the attainment level)

- The students through the class representative may give their feedback at any time to the course faculty which will be duly addressed.
- The students may also give their feedback during Class Committee meeting.

10. Course Policy (including plagiarism, academic honesty, attendance, etc.)

- **ACADEMIC DISHONESTY & PLAGIARISM**
  Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.
  Zero mark to be awarded for the offenders. For copying from another student, both students get the same penalty of zero mark.
  The departmental disciplinary committee including the course faculty member, PAC chairperson and the HoD, as members shall verify the facts of the malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.
  The above policy against academic dishonesty shall be applicable for all the programmes.
- **Attendance**
  At least 75% attendance in each course is mandatory.
  A maximum of 10% shall be allowed under On Duty (OD) category.
  Students with less than 65% of attendance shall be prevented from writing the final assessment and shall be awarded 'V' grade.
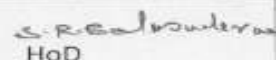- **Compensation Assessment policy**
  One compensation assessment for absentees in assessments (other than final assessment) is mandatory. Only genuine cases of absence shall be considered