



# Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India  
(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
TEITL502	Operating Systems Lab	--	--	2	--	--	1	1
		<b>Examination Scheme</b>						
		<b>ISE</b>			<b>ESE</b>			<b>Total</b>
					<b>Practical</b>		<b>Oral</b>	
<b>40</b>			<b>-</b>		<b>20</b>	<b>60</b>		

<b>Pre-requisite Course Codes</b>	ITL-36 (Open Source Operating System Lab) TEITC502 (Operating Systems)	
After successful completion of the course, student will be able to:		
<b>Course Outcomes</b>	CO1	Compare performance of various CPU scheduling algorithm.
	CO2	Demonstrate deadlock detection and avoidance algorithm.
	CO3	Create processes and implement IPC
	CO4	Demonstrate file and memory allocation strategies.
	CO5	Demonstrate process synchronization.

Exp. No.	Experiment Details	Ref.	Marks
1	Implement CPU scheduling algorithm.	1,2	5
2	Implement file allocation strategies-Sequential, Indexed and Linked.	1,2	5
3	Implement Producer consumer problem using Semaphore.	1,2,3	5
4	Implement bankers algorithm for deadlock avoidance.	1,2	5
5	Implement threading and synchronization application.	1,2,3	5
6	Implement system calls for mv,cp.	4,5	5
7	Implement disk scheduling algorithm	1,2	5
8	BIOS CMOS and BOOT process : Study BIOS setting security	4,5	5
<b>Total Marks</b>			<b>40</b>

## References:

1. Silberschatz A., Galvin P., Gagne G. "Operating Systems Principles", Willey Eight edition.
2. William Stallings, "Operating System-Internal & Design Principles", Pearson.
3. Andrew S. Tanenbaum, "Modern Operating System", Prentice Hall.
4. Maurice J. Bach, "The Design of Unix Operating System", Prentice Hall.
5. B. M. Harwani, "Unix and Shell Programming", Oxford.