

Semester	Subjects
III	Applied Maths III Electronic Devices Digital Electronics Data Structures and Algorithms Automata Theory Lab course: Python programming
IV	Applied Maths IV Microprocessors and Microcontrollers Controls and Instrumentation Database Management Systems Computer Organization and Architecture Lab Course : Competitive Coding
V	Electronic Circuits Communication Engineering Operating Systems Software Engineering Business Communication and Ethics Electives: ASIC Verification Robotics Information Theory and Coding Mini Project I
VI	Embedded Systems Artificial Intelligence Computer Networks Analysis of Algorithms Electives: Machine Learning Industrial Automation Digital Signal Processing Mini Project II
VII	Data Warehousing and Mining Internet of Things Data Science Electives: Deep Learning Image Processing Mobile Communication Institute-Level Elective Project I
VIII	VLSI Design Cloud Computing Electives: Advanced Networking Technologies Information Security Natural language processing Institute-Level Elective Project II

Draft of Syllabus of B.E. (Electronics and Computer Science)

Semester III

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		TH	PR	Tut	TH	TW/Prac	Tut	Total
	Applied Maths III	4+1@	-	-	5	-	-	5
	Electronic Devices	4	-	-	4	-	-	4
	Digital Electronics	4	-	-	4	-	-	4
	Data Structures and Algorithms	4	-	-	4	-	-	4
	Automata Theory	3+1@	-	-	4	-	-	4
	Electronic Devices Lab	-	2	-	-	1	-	1
	Digital Electronics Lab	-	2	-	-	1	-	1
	Data Structures and Algorithms Lab	-	2	-	-	1	-	1
	Lab course: Python programming	-	2+2*	-	-	2	-	2
	Total	21	10	-	-	-	-	26

@ 1 hour to be taken tutorial as class wise.

*2 hours shown as practicals to be taken class wise and other 2 hours to be taken as batch wise

Course Code	Course Name	Examination Scheme								
		Theory					TW	Oral	Oral & Pract	Total
Internal Assessment			End Sem Exam	Exam Duration (in Hrs)						
Test1	Test2	Av								
	Applied Maths III	20	20	20	80	03	-	-	-	100
	Electronic Devices	20	20	20	80	03	-	-	-	100
	Digital Electronics	20	20	20	80	03	-	-	-	100
	Data Structures and Algorithms	20	20	20	80	03	-	-	-	100
	Automata Theory	20	20	20	80	03	-	-	-	100
	Electronic Devices Lab	-	-	-	-	-	25	-	25	50
	Digital Electronics Lab	-	-	-	-	-	25	-	25	50
	Data Structures and Algorithms Lab	-	-	--	-	-	25	-	25	50

	Lab course: Python programming	-	-	-	-	-	50	-	50	100
	Total	100	100	100	400		100		100	750

Semester IV

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		TH	PR	Tut	TH	TW/Prac	Tut	Total
	Applied Maths IV	4+1@	-	-	5	-	-	5
	Microprocessors and Microcontrollers	4	-	-	4	-	-	4
	Controls and Instrumentation	4	-	-	4	-	-	4
	Database Management Systems	4	-	-	4	-	-	4
	Computer Organization and Architecture	4	-	-	4	-	-	4
	Microprocessors and Microcontrollers Lab	-	2	-	-	1	-	1
	Controls and Instrumentation Lab	-	2	-	-	1	-	1
	Database Management Systems Lab	-	2	-	-	1	-	1
	Lab Course : Competitive Coding	-	2+2*	-	-	2	-	2
	Total	21	10	-				26

@ 1 hour to be taken tutorial as class wise.

*2 hours shown as practicals to be taken class wise and other 2 hours to be taken as batch wise

Course Code	Course Name	Examination Scheme								
		Theory					TW	Oral	Oral & Pract	Total
Internal Assessment			End Sem Exam	Exam Duration (in Hrs)						
Test1	Test2	Av								
	Applied Maths IV	20	20	20	80	03	-	-	-	100
	Microprocessors and Microcontrollers	20	20	20	80	03	-	-	-	100
	Controls and Instrumentation	20	20	20	80	03	-	-	-	100
	Database Management Systems	20	20	20	80	03	-	-	-	100

	Computer Organization and Architecture	20	20	20	80	03	-	-	-	100
	Microprocessors and Microcontrollers Lab	-	-	-	-	-	25	-	25	50
	Controls and Instrumentation Lab	-	-	-	--	-	25	-	25	50
	Database Management Systems Lab	-	-	--	-	-	25	-	25	50
	Lab Course : Competitive Coding	-	-	-	-	-	50	-	50	100
	Total	100	100	100	400		100		100	750

Semester V

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		TH	PR	Tut	TH	TW/Prac	Tut	Total
	Electronic Circuits	4	-	-	4	-	-	4
	Communication Engineering	4	-	-	4	-	-	4
	Operating Systems	4	-	-	4	-	-	4
	Software Engineering	4	-	-	4	-	-	4
	Department Level Elective	4	-	-	4	-	-	4
	Electronic Circuits and Communication Lab	-	2	-	-	1	-	1
	Operating Systems Lab	-	2	-	-	1	-	1
	Software Engineering Lab	-	2	-	-	1	-	1
	Department Level Elective Lab	-	2	-	-	1	-	1
	Business Communication and Ethics	-	2+2*	-	-	2	-	2
	Total	20	12	-	-			26

*2 hours shown as practicals to be taken class wise and other 2 hours to be taken as batch wise

Course Code	Course Name	Examination Scheme								
		Theory					TW	Oral	Oral & Pract	Total
		Internal Assessment			End Sem Exam	Exam Duration (in Hrs)				
Test1	Test2	Av								
	Electronic Circuits	20	20	20	80	03	-	-	-	100
	Communication Engineering	20	20	20	80	03	-	-	-	100
	Operating Systems	20	20	20	80	03	-	-	-	100
	Software Engineering	20	20	20	80	03	-	-	-	100
	Department Level Elective	20	20	20	80	03	-	-	-	100
	Electronic Circuits and Communication Lab	-	-	-	-	-	25	-	25	50
	Operating Systems Lab	-	-	-	-	-	25	-	25	50
	Software Engineering Lab	-	-	-	-	-	25	-	25	50
	Department Level Elective Lab	-	-	-	-	-	25	-	25	50
	Business Communication and Ethics	-	-	-	-	-	50	-	-	50
	Total									750

Department Level Electives: ASIC Verification

Robotics

Information Theory and Coding

Department Level Electives: Machine Learning

Industrial Automation

Digital Signal Processing

Semester VII

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		TH	PR	Tut	TH	TW/Prac	Tut	Total
	Data Warehousing and Mining	4	-	-	4	-	-	4
	Internet of Things	4	-	-	4	-	-	4
	Data Science	4	-	-	4	-	-	4
	Department Level Elective	4	-	-	4	-	-	4
	Institute-Level Elective	3	-	-	3	-	-	3
	Data Warehousing and Mining Lab	-	2	-	-	1	-	1
	Internet of Things Lab	-	2	-	-	1	-	1
	Data Science Lab	-	2	-	-	1	-	1
	Department Level Elective lab	-	2	-	-	1	-	1
	Project I	-	6	-	-	3	-	3
	Total	19	14					26

Course Code	Course Name	Examination Scheme								
		Theory					TW	Oral	Oral & Pract	Total
Internal Assessment			End Sem Exam	Exam Duration (in Hrs)						
Test1	Test2	Av								
	Data Warehousing and Mining	20	20	20	80	03	-	-	-	100
	Internet of Things	20	20	20	80	03	-	-	-	100
	Data Science	20	20	20	80	03	-	-	-	100
	Department Level Elective	20	20	20	80	03	-	-	-	100
	Institute-Level Elective	20	20	20	80	03	-	-	-	100
	Data Warehousing and Mining Lab	-	-	-	-	-	25	-	25	50
	Internet of Things Lab	-	-	-	-	-	25	-	25	50
	Data Science Lab	-	-	-	-	-	25	-	25	50

	Department Level Elective lab	-	-	-	-	-	25	-	25	50
	Project I	-	-	-	-	-	25	-	25	50
	Total									750

Department Level Electives: Deep Learning

Image Processing

Mobile Communication

Semester VIII

Course Code	Course Name	Teaching Scheme (Contact Hours)			Credits Assigned			
		TH	PR	Tut	TH	TW/Prac	Tut	Total
	VLSI Design	4	-	-	4	-	-	4
	Cloud Computing	4	-	-	4	-	-	4
	Department Level Elective	4	-	-	4	-	-	4
	Institute-Level Elective	3	-	-	3	-	-	3
	VLSI Design Lab	-	2	-	-	1	-	1
	Cloud Computing Lab	-	2	-	-	1	-	1
	Department Level Elective Lab	-	2	-	-	1	-	1
	Computational Lab	-	2	-	-	2	-	2
	Project II	-	12	-	-	-	-	6
	Total	15	18					26

Course Code	Course Name	Examination Scheme								
		Theory					TW	Oral	Oral & Pract	Total
		Internal Assessment			End Sem Exam	Exam Duration (in Hrs)				
Test1	Test2	Av								
	VLSI Design	20	20	20	80	03	-	-	-	100
	Cloud Computing	20	20	20	80	03	-	-	-	100
	Department Level Elective	20	20	20	80	03	-	-	-	100
	Institute-Level Elective	20	20	20	80	03	-	-	-	100
	VLSI Design Lab	-	-	-	-	-	25	-	25	50
	Cloud Computing Lab	-	-	-	-	-	25	-	25	50
	Department Level Elective Lab	-	-	-	-	-	25	-	25	50
	Computational Laboratory	--	-	-	-	-	50	-	50	100

	Project II	-	-	-	-	-	50	-	50	100
	Total									750

Department Level Electives: Advanced Networking Technologies

Information Security

Natural language processing

Distributed Computing