

SESHADRI RAO GUDLAVALLERU ENGINEERING COLLEGE



(An Autonomous Institute with Permanent Affiliation to JNTUK, Kakinada)

Seshadri Rao Knowledge Village, GUDLAVALLERU-521 356, Krishna District, A.P., India

(Approved by AICTE, New Delhi and Permitted by A.P. State Government)

Accredited by NAAC

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M.S., M.Tech., Ph.D.,

MISTE, MIETE, MIE, MCSI, MISRS, MIAPR, MCRSI

Principal

1.1.3: List of courses having focus on employability/entrepreneurship/ skill development offered by the institution during the academic year 2018 - 2019.

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
1.	Computer Aided Drafting lab	CE2502	B. Tech-CE	Skill Development
2.	Linear Algebra and Differential Equations	MA2501	B. Tech-CE	Employability
3.	Integral Transforms and Multiple integrals	MA2503	B. Tech-CE	Employability
4.	Engineering Physics	PH2501	B. Tech-CE	Employability
5.	Engineering Physics Lab	PH2503	B. Tech-CE	Skill Development
6.	Engineering Chemistry	CH2501	B. Tech-CE	Employability
7.	Engineering Chemistry Lab	CH2502	B. Tech-CE	Skill Development
8.	Engineer and Society	EN2502	B. Tech-CE	Employability
9.	Problem Solving using C	CT2501	B. Tech-CE	Employability
10.	Engineering Drawing	ME2501	B. Tech-CE	Skill Development
11.	Engineering Mechanics	CE2501	B. Tech-CE	Employability
12.	Applied Mechanics lab and building trade practices	CE2503	B. Tech-CE	Skill Development
13.	Mechanics of Solids	CE2504	B. Tech-CE	Employability
14.	Mechanics of Fluids	CE2505	B. Tech-CE	Employability
15.	Mechanics of Solids Lab	CE2509	B. Tech-CE	Skill Development
16.	Structural Analysis	CE2511	B. Tech-CE	Employability
17.	Engineering Geology and Geomatics	CE2514	B. Tech-CE	Employability
18.	Interior Design	CE2519	B. Tech-CE	Employability
19.	Building Bye Laws and Scientific Planning	CE2520	B. Tech-CE	Employability
20.	Numerical and Statistical Methods	MA2509	B. Tech-CE	Employability

(Sponsored by A.A.N.M. & V.V.R.S.R. Educational Society, Gudlavalluru)

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
21.	Building Material and construction	CE2506	B. Tech-CE	Employability
22.	Surveying	CE2507	B. Tech-CE	Employability
23.	Building Planning and Drawing	CE2508	B. Tech-CE	Employability
24.	Survey Filed Work	CE2510	B. Tech-CE	Skill Development
25.	Concrete Technology	CE2513	B. Tech-CE	Employability
26.	Concrete Technology Lab	CE2518	B. Tech-CE	Skill Development
27.	Hydraulics and Hydraulics Mechanics	CE2512	B. Tech-CE	Employability
28.	Fluid Mechanics and hydraulics Machines Lab	CE2517	B. Tech-CE	Skill Development
29.	Elements of Electrical Circuits	EE2507	B. Tech-EEE	Employability
30.	Elements of Mechanical Engineering	ME2503	B. Tech-EEE	Employability
31.	Linear Algebra and Differential Equations	MA2501	B. Tech-EEE	Employability
32.	Integral transforms and Vector Calculus	MA2504	B. Tech-EEE	Employability
33.	Solid State Physics	PH2504	B. Tech-EEE	Employability
34.	Solid State Physics Lab	PH2505	B. Tech-EEE	Skill Development
35.	Applied Chemistry	CH2503	B. Tech-EEE	Employability
36.	Engineer and Society	EN2502	B. Tech-EEE	Employability
37.	Problem Solving using C	CT2501	B. Tech-EEE	Employability
38.	DC Machines and Transformers	EE2508	B. Tech-EEE	Employability
39.	Electric Circuit Analysis	EE2509	B. Tech-EEE	Employability
40.	Analog Electronics	EC2503	B. Tech-EEE	Employability
41.	Mechanical Engineering Lab	ME2504	B. Tech-EEE	Skill Development
42.	Electric Circuits Lab	EE2511	B. Tech-EEE	Skill Development
43.	Analog Electronics Lab	EC2504	B. Tech-EEE	Skill Development
44.	Digital Circuit Design	EC2505	B. Tech-EEE	Employability
45.	Engineering Economics and Project Management	BA2501	B. Tech-EEE	Entrepreneurship
46.	Induction and Synchronous Machines	EE2513	B. Tech-EEE	Employability
47.	Digital Circuit Design Lab	EC2506	B. Tech-EEE	Skill Development
48.	Biomedical Engineering	EC2507	B. Tech-EEE	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
49.	Computer Organisation and Architecture	CT2512	B. Tech-EEE	Employability
50.	Introduction to Quantum Mechanics for Engineers	EE2518	B. Tech-EEE	Employability
51.	Power Systems – I	EE2510	B. Tech-EEE	Employability
52.	Optional Elective-II MOOCS	EE2519	B. Tech-EEE	Employability
53.	Engineering Graphics	ME2505	B. Tech-ME	Employability
54.	Industrial Chemistry Lab and Engineering Mechanics Lab	ME2508	B. Tech-ME	Skill Development
55.	Linear Algebra and Differential Equations	MA2501	B. Tech-ME	Employability
56.	Integral Transforms and Multiple integrals	MA2503	B. Tech-ME	Employability
57.	Engineering Physics Lab	PH2503	B. Tech-ME	Skill Development
58.	Physics for Engineers	PH2502	B. Tech-ME	Employability
59.	Industrial Chemistry	CH2505	B. Tech-ME	Employability
60.	Engineer and Society	EN2502	B. Tech-ME	Entrepreneurship
61.	Elements of Electrical and Electronics Engineering	EE2501	B. Tech-ME	Employability
62.	Solid Mechanics	ME2512	B. Tech-ME	Employability
63.	Engineering Metallurgy	ME2513	B. Tech-ME	Employability
64.	Electrical and Electronics Engineering Lab	EE2502	B. Tech-ME	Skill Development
65.	Solid Mechanics and Metallurgy Lab	ME2514	B. Tech-ME	Skill Development
66.	Computer Aided Modelling Lab	ME2515	B. Tech-ME	Skill Development
67.	Applied Thermodynamics	ME2517	B. Tech-ME	Employability
68.	Thermal Engineering Lab	ME2522	B. Tech-ME	Skill Development
69.	Machine Dynamics Lab	ME2524	B. Tech-ME	Skill Development
70.	Control Systems	EE2512	B. Tech-ME	Employability
71.	Nano Technology	ME2525	B. Tech-ME	Employability
72.	Digital Logic Design	CT2506	B. Tech-ME	Employability
73.	Problem Solving Through Computer Programming	CT2502	B. Tech-ECE	Employability
74.	Computer Programming Lab	CT2503	B. Tech-ECE	Skill Development
75.	Linear Electrical Networks	EE2504	B. Tech-ECE	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
76.	Linear Algebra and Differential Equations	MA2501	B. Tech-ECE	Employability
77.	Integral transforms and Vector Calculus	MA2504	B. Tech-ECE	Employability
78.	Numerical Methods & Complex Analysis	MA2505	B. Tech-ECE	Employability
79.	Solid State Physics	PH2504	B. Tech-ECE	Employability
80.	Solid State Physics Lab	PH2505	B. Tech-ECE	Skill Development
81.	Applied Chemistry	CH2503	B. Tech-ECE	Employability
82.	Engineer and Society	EN2502	B. Tech-ECE	Entrepreneurship
83.	Probability Theory and Stochastic Process	EC2524	B. Tech-ECE	Employability
84.	Electronic Devices	EC2525	B. Tech-ECE	Employability
85.	Engineering Economics And Project Management	BA2501	B. Tech-ECE	Entrepreneurship
86.	Elements of Electrical Engineering	EE2505	B. Tech-ECE	Employability
87.	Electronic Devices Lab	EC2527	B. Tech-ECE	Skill Development
88.	Analog Circuits	EC2529	B. Tech-ECE	Employability
89.	Analog Communications	EC2530	B. Tech-ECE	Employability
90.	Fundamentals of Data Structures	CS2501	B. Tech-ECE	Employability
91.	Analog Circuits Lab	EC2533	B. Tech-ECE	Skill Development
92.	Digital Circuit Design Lab	EC2506	B. Tech-ECE	Skill Development
93.	Electronic Switching Systems	EC2534	B. Tech-ECE	Employability
94.	Introduction to Python Programming	CS2502	B. Tech-ECE	Employability
95.	Database Management Systems	CT2513	B. Tech-ECE	Employability
96.	Network Electrical Technology Lab	EE2507	B. Tech-ECE	Skill Development
97.	Problem Solving through Computer Programming	CT2502	B. Tech-CSE	Employability
98.	Computer Programming Lab	CT2503	B. Tech-CSE	Skill Development
99.	Python Programming	CT2504	B. Tech-CSE	Employability
100.	Linear Algebra and Integral Transforms	MA2502	B. Tech-CSE	Employability
101.	Numerical Methods and Differential Equations	MA2506	B. Tech-CSE	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
102.	Applied Physics	PH2506	B. Tech-CSE	Employability
103.	Applied Physics Lab	PH2507	B. Tech-CSE	Skill Development
104.	Engineer and Society	EN2502	B. Tech-CSE	Entrepreneurship
105.	Data Structures	CT2505	B. Tech-CSE	Employability
106.	UNIX Programming Lab	CS2503	B. Tech-CSE	Skill Development
107.	Computer Organization and Architecture	CT2512	B. Tech-CSE	Employability
108.	Database Management Systems Lab	CT2516	B. Tech-CSE	Skill Development
109.	Operating Systems Lab	CS2504	B. Tech-CSE	Skill Development
110.	Computer Graphics	CT2514	B. Tech-CSE	Employability
111.	Managerial Economics Financial Analysis	BA2502	B. Tech-CSE	Entrepreneurship
112.	Digital Logic Design	CT2506	B. Tech-CSE	Employability
113.	Objective oriented through JAVA	CT2507	B. Tech-CSE	Employability
114.	Data Structure Lab	CT2508	B. Tech-CSE	Skill Development
115.	Objective oriented Programming Lab	CT2509	B. Tech-CSE	Skill Development
116.	Operating Systems	CT 2510	B. Tech-CSE	Employability
117.	Problem Solving through Computer Programming	CT2502	B. Tech-IT	Employability
118.	Computer Programming Lab	CT2503	B. Tech-IT	Skill Development
119.	Elements of Electronics Engineering	EC2501	B. Tech-IT	Employability
120.	Python Programming	CT2504	B. Tech-IT	Employability
121.	Elements of Electronics Engineering Lab	EC2502	B. Tech-IT	Skill Development
122.	Linear Algebra and Integral Transforms	MA2502	B. Tech-IT	Employability
123.	Numerical Methods and Differential Equations	MA2506	B. Tech-IT	Employability
124.	Applied Physics	PH2506	B. Tech-IT	Employability
125.	Applied Physics Lab	PH2507	B. Tech-IT	Skill Development
126.	Chemistry	CH2506	B. Tech-IT	Employability
127.	Engineer and Society	EN2502	B. Tech-IT	Entrepreneurship
128.	Data Structures	CT2505	B. Tech-IT	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
129.	UNIX and Shell Programming	IT2501	B. Tech-IT	Employability
130.	Object Oriented Programming Lab	CT2509	B. Tech-IT	Skill Development
131.	Computer Organization and Architecture	CT2512	B. Tech-IT	Employability
132.	Database Management Systems Lab	CT2516	B. Tech-IT	Skill Development
133.	Information and Communication Technology	IT2503	B. Tech-IT	Employability
134.	Signals and Systems	EC2508	B. Tech-IT	Employability
135.	Basic electrical Engineering	EE2506	B. Tech-IT	Employability
136.	Digital Logic Design	CT2506	B. Tech-IT	Employability
137.	Objective Oriented through JAVA	CT2507	B. Tech-IT	Employability
138.	Data Structures Lab	CT2508	B. Tech-IT	Skill Development
139.	Water Resources Engineering -II	CE1520	B. Tech-CE	Employability
140.	Concrete Technology Lab	CE1524	B. Tech-CE	Employability
141.	Fluid Mechanics and Hydraulic Machines Lab	CE1526	B. Tech-CE	Skill Development
142.	Environmental engineering lab	CE1536	B. Tech-CE	Skill Development
143.	Mini Project/ Survey Camp	CE1538	B. Tech-CE	Skill Development
144.	Managerial Economics and Financial Analysis	BA1502	B. Tech-CE	Entrepreneurship
145.	Structural Engineering lab	CE1549	B. Tech-CE	Skill Development
146.	Transportation Engineering Lab	CE1550	B. Tech-CE	Skill Development
147.	Computer Applications in Civil Engineering Lab	CE1551	B. Tech-CE	Skill Development
148.	Advanced Concrete structures	CE1552	B. Tech-CE	Employability
149.	Docks and Harbour Engineering	CE1555	B. Tech-CE	Employability
150.	Industrial Waste Management	CE1557	B. Tech-CE	Employability
151.	Industrial/Practical Training	CE1562	B. Tech-CE	Skill Development
152.	Remote Sensing and GIS Techniques	CE1522	B. Tech-CE	Employability
153.	Elements of civil Engineering	CE1523	B. Tech-CE	Employability
154.	Modelling and Simulation of Engineering Systems	EE1522	B. Tech-CE	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
155.	Renewable Energy Sources	ME1525	B. Tech-CE	Employability
156.	Elements of Mechanical Engineering	ME1526	B. Tech-CE	Employability
157.	Computer Networks	CS1507	B. Tech-CE	Employability
158.	Object Oriented Programming	CT1506	B. Tech-CE	Employability
159.	Cyber Laws	CS1508	B. Tech-CE	Employability
160.	Open Source Software	IT1505	B. Tech-CE	Employability
161.	Fundamentals of Data Base Management Systems	IT1506	B. Tech-CE	Employability
162.	Fuzzy Mathematics	MA1507	B. Tech-CE	Employability
163.	Disaster Management	CE1534	B. Tech-CE	Employability
164.	Solid Waste Management	CE1535	B. Tech-CE	Employability
165.	Material Science	ME1535	B. Tech-CE	Employability
166.	Automotive Electronics	EC1540	B. Tech-CE	Employability
167.	Introduction to MPMC	EC1541	B. Tech-CE	Employability
168.	Cloud Computing	CT1525	B. Tech-CE	Employability
169.	Web Technologies	CS1511	B. Tech-CE	Employability
170.	Virtual Reality	CS1513	B. Tech-CE	Employability
171.	Scripting Languages	IT1510	B. Tech-CE	Employability
172.	Big Data	IT1511	B. Tech-CE	Employability
173.	Multi-variant analysis and Special Functions	MA1509	B. Tech-CE	Employability
174.	Statistical Methods using R Software	MA1510	B. Tech-CE	Employability
175.	Building services	CE1548	B. Tech-CE	Employability
176.	Pre-stressed Concrete	CE1530	B. Tech-CE	Employability
177.	Structural Dynamics	CE1531	B. Tech-CE	Employability
178.	Project Management	CE1532	B. Tech-CE	Employability
179.	Ground Improvement Techniques	CE1533	B. Tech-CE	Employability
180.	Finite Element Method	CE1540	B. Tech-CE	Employability
181.	Advanced Structural Analysis	CE1541	B. Tech-CE	Employability
182.	Advanced Environmental Engineering	CE1542	B. Tech-CE	Employability
183.	Design And Drawing of Irrigation Structures	CE1543	B. Tech-CE	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
184.	Design of Industrial Structures	CE1544	B. Tech-CE	Employability
185.	Air Pollution and its Control	CE1545	B. Tech-CE	Employability
186.	Architecture and Town planning	CE1547	B. Tech-CE	Employability
187.	Global Positioning Systems	CE1560	B. Tech-CE	Employability
188.	Signals and Systems	EC1516	B. Tech-EEE	Employability
189.	Pulse and Integrated Circuits	EC1506	B. Tech-EEE	Employability
190.	Electrical Measurements & Instrumentation Lab	EE1523	B. Tech-EEE	Skill Development
191.	Mini Project	EE1525	B. Tech-EEE	Skill Development
192.	Data Structures using C	CS1501	B. Tech-EEE	Employability
193.	Integrated Circuits and PDC Lab	EC1501	B. Tech-EEE	Skill Development
194.	Power Electronics and Drives Lab	EE1532	B. Tech-EEE	Skill Development
195.	HVDC Transmission Systems	EE1537	B. Tech-EEE	Employability
196.	Electrical Machine Design	EE1539	B. Tech-EEE	Employability
197.	Programmable Logic Controller	EE1540	B. Tech-EEE	Employability
198.	Computer Organization & Architecture	CS1505	B. Tech-EEE	Employability
199.	Electrical Costing & Estimation	EE1546	B. Tech-EEE	Employability
200.	Modelling and Analysis of Electrical Machines	EE1547	B. Tech-EEE	Employability
201.	High Voltage Engineering	EE1548	B. Tech-EEE	Employability
202.	EHV AC/ DC Transmission Systems	EE1551	B. Tech-EEE	Employability
203.	Power Plant Instrumentation	EE1552	B. Tech-EEE	Employability
204.	Industrial/ Practical Training	EE1554	B. Tech-EEE	Skill Development
205.	Remote Sensing and GIS Techniques	CE1522	B. Tech-EEE	Employability
206.	Elements of civil Engineering	CE1523	B. Tech-EEE	Employability
207.	Modelling and Simulation of Engineering Systems	EE1522	B. Tech-EEE	Employability
208.	Renewable Energy Sources	ME1525	B. Tech-EEE	Employability
209.	Elements of Mechanical Engineering	ME1526	B. Tech-EEE	Employability
210.	Computer Networks	CS1507	B. Tech-EEE	Employability
211.	Object Oriented Programming	CT1506	B. Tech-EEE	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
212.	Cyber Laws	CS1508	B. Tech-EEE	Employability
213.	Open Source Software	IT1505	B. Tech-EEE	Employability
214.	Fundamentals of Data Base Management Systems	IT1506	B. Tech-EEE	Employability
215.	Fuzzy Mathematics	MA1507	B. Tech-EEE	Employability
216.	Disaster Management	CE1534	B. Tech-EEE	Employability
217.	Solid Waste Management	CE1535	B. Tech-EEE	Employability
218.	Material Science	ME1535	B. Tech-EEE	Employability
219.	Automotive Electronics	EC1540	B. Tech-EEE	Employability
220.	Introduction to MPMC	EC1541	B. Tech-EEE	Employability
221.	Cloud Computing	CT1525	B. Tech-EEE	Employability
222.	Web Technologies	CS1511	B. Tech-EEE	Employability
223.	Virtual Reality	CS1513	B. Tech-EEE	Employability
224.	Scripting Languages	IT1510	B. Tech-EEE	Employability
225.	Big Data	IT1511	B. Tech-EEE	Employability
226.	Multi-variant analysis and Special Functions	MA1509	B. Tech-EEE	Employability
227.	Statistical Methods using R Software	MA1510	B. Tech-EEE	Employability
228.	Electrical Safety Management	EE1553	B. Tech-EEE	Employability
229.	Hydraulic Machines and Systems	ME1521	B. Tech-ME	Employability
230.	Principles of Machine Design	ME1522	B. Tech-ME	Employability
231.	Thermal Engineering Lab	ME1528	B. Tech-ME	Skill Development
232.	Fluid Mechanics and Hydraulic Machines Lab	ME1537	B. Tech-ME	Skill Development
233.	Design of Mechanical Components	ME1530	B. Tech-ME	Employability
234.	Metrology and Instrumentation	ME1531	B. Tech-ME	Employability
235.	Computer Aided Modelling Lab	ME1538	B. Tech-ME	Skill Development
236.	Mini Project	ME1538	B. Tech-ME	Skill Development
237.	Automobile Engineering	ME1532	B. Tech-ME	Employability
238.	Finite Element Methods	ME1533	B. Tech-ME	Employability
239.	Unconventional Machining Processes	ME1534	B. Tech-ME	Employability
240.	Control Systems	EE1503	B. Tech-ME	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
241.	Heat Transfer	ME1540	B. Tech-ME	Employability
242.	CAD / CAM Lab	ME1549	B. Tech-ME	Skill Development
243.	Heat Transfer Lab	ME1550	B. Tech-ME	Skill Development
244.	Computational Methods for Engineers Lab	ME1551	B. Tech-ME	Skill Development
245.	Computational Fluid Dynamics	ME1541	B. Tech-ME	Employability
246.	Interactive Computer Graphics	ME1543	B. Tech-ME	Employability
247.	Mechanical Vibrations	ME1544	B. Tech-ME	Employability
248.	Production Planning and Control	ME1545	B. Tech-ME	Employability
249.	Tribology	ME1546	B. Tech-ME	Employability
250.	Refrigeration & Air Conditioning	ME1547	B. Tech-ME	Employability
251.	Fracture Mechanics	ME1548	B. Tech-ME	Employability
252.	Condition Monitoring	ME1553	B. Tech-ME	Employability
253.	Rapid Prototyping	ME1554	B. Tech-ME	Employability
254.	Design for Manufacturing & Assembly	ME1555	B. Tech-ME	Employability
255.	Supply Chain Management	ME1559	B. Tech-ME	Employability
256.	Disaster Management	CE1534	B. Tech-ME	Employability
257.	Solid Waste Management	CE1535	B. Tech-ME	Employability
258.	Energy Audit, Conservation and Management	EE1531	B. Tech-ME	Employability
259.	Material Science	ME1535	B. Tech-ME	Employability
260.	Automotive Electronics	EC1540	B. Tech-ME	Employability
261.	Introduction to MP&MC	EC1541	B. Tech-ME	Employability
262.	Cloud Computing	CT1525	B. Tech-ME	Employability
263.	Web Technologies	CS1511	B. Tech-ME	Employability
264.	Virtual Reality	CS1513	B. Tech-ME	Employability
265.	Scripting Languages	IT1510	B. Tech-ME	Employability
266.	Big Data	IT1511	B. Tech-ME	Employability
267.	Multi-variant analysis and Special Functions	CS1502	B. Tech-ME	Employability
268.	Remote Sensing and GIS Techniques	CE1522	B. Tech-ME	Employability
269.	Elements of Civil Engineering	CE1523	B. Tech-ME	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
270.	Modelling and Simulation of Engineering Systems	EE1522	B. Tech-ME	Employability
271.	Renewable Energy Sources	ME1525	B. Tech-ME	Employability
272.	Elements of Mechanical Engineering	ME1526	B. Tech-ME	Employability
273.	Computer Networks	CS1507	B. Tech-ME	Employability
274.	Object Oriented Programming	CT1506	B. Tech-ME	Employability
275.	Data Structures Using C	CS1501	B. Tech-ME	Employability
276.	Cyber Laws	CS1508	B. Tech-ME	Employability
277.	Open Source Software	IT1505	B. Tech-ME	Employability
278.	Fundamentals of Data Base Management Systems	IT1506	B. Tech-ME	Employability
279.	Fuzzy Mathematics	MA1507	B. Tech-ME	Employability
280.	Statistical Methods using R Software	MA1510	B. Tech-ME	Employability
281.	Internet of Things	EC1567	B. Tech-ME	Employability
282.	Consumer Electronics	EC1568	B. Tech-ME	Employability
283.	Linear and Digital ICs	EC1527	B. Tech-ECE	Employability
284.	Computer Organization and Microprocessors	EC1528	B. Tech-ECE	Employability
285.	Pulse and Digital Circuits Lab	EC1531	B. Tech-ECE	Skill Development
286.	Microprocessors and Interfacing Lab	EC1508	B. Tech-ECE	Skill Development
287.	Digital Signal Processing	EC1533	B. Tech-ECE	Employability
288.	VLSI Design	EC1534	B. Tech-ECE	Employability
289.	Microwave and Optical Communications	EC1535	B. Tech-ECE	Employability
290.	Digital Switching and Multiplexing	EC1536	B. Tech-ECE	Employability
291.	Artificial Neural Networks	EC1538	B. Tech-ECE	Employability
292.	Electronic System Design	EC1539	B. Tech-ECE	Employability
293.	IC Applications Lab	EC1542	B. Tech-ECE	Skill Development
294.	ECAD Lab	EC1543	B. Tech-ECE	Skill Development
295.	Mini Project	EC1544	B. Tech-ECE	Skill Development
296.	Electronic Measurements and Instrumentation	EC1545	B. Tech-ECE	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
297.	Microcontrollers and Embedded Systems	EC1546	B. Tech-ECE	Employability
298.	Sensors and Instrumentation	EC1548	B. Tech-ECE	Employability
299.	Advanced Computer Architecture	CS1524	B. Tech-ECE	Employability
300.	DSP Architecture and Applications	EC1549	B. Tech-ECE	Employability
301.	FPGA Design	EC1550	B. Tech-ECE	Employability
302.	Digital TV Engineering	EC1551	B. Tech-ECE	Employability
303.	Digital Image Processing	EC1552	B. Tech-ECE	Employability
304.	Embedded Real Time Operating Systems	EC1553	B. Tech-ECE	Employability
305.	Microwave and Optical Communications Lab	EC1557	B. Tech-ECE	Skill Development
306.	VLSI and Embedded Systems Lab	EC1558	B. Tech-ECE	Skill Development
307.	Testing and Verification of VLSI Circuits	EC1559	B. Tech-ECE	Employability
308.	Low Power VLSI Design	EC1563	B. Tech-ECE	Employability
309.	Software Engineering	EC1565	B. Tech-ECE	Employability
310.	Bio-Medical Instrumentation	EC1566	B. Tech-ECE	Employability
311.	Industrial/Practical Training	EC1569	B. Tech-ECE	Skill Development
312.	Remote Sensing and GIS Techniques	CE1522	B. Tech-ECE	Employability
313.	Elements of civil Engineering	CE1523	B. Tech-ECE	Employability
314.	Modelling and Simulation of Engineering Systems	EE1522	B. Tech-ECE	Employability
315.	Renewable Energy Sources	ME1525	B. Tech-ECE	Employability
316.	Elements of Mechanical Engineering	ME1526	B. Tech-ECE	Employability
317.	Computer Networks	CS1507	B. Tech-ECE	Employability
318.	Object Oriented Programming	CT1506	B. Tech-ECE	Employability
319.	Cyber Laws	CS1508	B. Tech-ECE	Employability
320.	Open Source Software	IT1505	B. Tech-ECE	Employability
321.	Fundamentals of Data Base Management Systems	IT1506	B. Tech-ECE	Employability
322.	Fuzzy Mathematics	MA1507	B. Tech-ECE	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
323.	Disaster Management	CE1534	B. Tech-ECE	Employability
324.	Solid Waste Management	CE1535	B. Tech-ECE	Employability
325.	Material Science	ME1535	B. Tech-ECE	Employability
326.	Automotive Electronics	EC1540	B. Tech-ECE	Employability
327.	Introduction to MPMC	EC1541	B. Tech-ECE	Employability
328.	Cloud Computing	CT1525	B. Tech-ECE	Employability
329.	Web Technologies	CS1511	B. Tech-ECE	Employability
330.	Virtual Reality	CS1513	B. Tech-ECE	Employability
331.	Scripting Languages	IT1510	B. Tech-ECE	Employability
332.	Big Data	IT1511	B. Tech-ECE	Employability
333.	Multi-variant analysis and Special Functions	MA1509	B. Tech-ECE	Employability
334.	Assistive Technologies	EC1554	B. Tech-ECE	Employability
335.	Introduction to Embedded Systems	EC1555	B. Tech-ECE	Employability
336.	Statistical Methods using R Software	MA1510	B. Tech-ECE	Employability
337.	Internet of Things	EC1567	B. Tech-ECE	Employability
338.	Consumer Electronics	EC1568	B. Tech-ECE	Employability
339.	Database Management System	CT1512	B. Tech-CSE	Employability
340.	Object Oriented Analysis and design	CT1514	B. Tech-CSE	Employability
341.	Computer Network - 1	CS1510	B. Tech-CSE	Employability
342.	Computer Network - 2	CS1514	B. Tech-CSE	Employability
343.	Computer Network Lab	CS1512	B. Tech-CSE	Skill Development
344.	Web Technologies	CS1511	B. Tech-CSE	Employability
345.	Database Management Systems Lab	CT1513	B. Tech-CSE	Skill Development
346.	Web Technologies Lab	CS1512	B. Tech-CSE	Skill Development
347.	Software Engineering	CT1516	B. Tech-CSE	Employability
348.	Data Warehousing and Data Mining	CT1517	B. Tech-CSE	Employability
349.	Human Computer Interface	EC1511	B. Tech-CSE	Employability
350.	Case Tools Lab	CS1509	B. Tech-CSE	Skill Development
351.	Information Security	CS1522	B. Tech-CSE	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
352.	Mini Project	CS1518	B. Tech-CSE	Skill Development
353.	Embedded Systems	CS1525	B. Tech-CSE	Employability
354.	Bio-Informatics	CS1526	B. Tech-CSE	Employability
355.	Distributed Systems	CS1527	B. Tech-CSE	Employability
356.	Digital Image Processing	CT1521	B. Tech-CSE	Employability
357.	Parallel Computing	CS1528	B. Tech-CSE	Employability
358.	Software Testing Methodologies	CT1522	B. Tech-CSE	Employability
359.	Web Services	CS1529	B. Tech-CSE	Employability
360.	Information Security Lab	CS1523	B. Tech-CSE	Skill Development
361.	Multi Media Application Development lab	CT1523	B. Tech-CSE	Skill Development
362.	Distributed Data Bases	CT1524	B. Tech-CSE	Employability
363.	Software Project Management	CT1525	B. Tech-CSE	Employability
364.	Semantic Web	CS1533	B. Tech-CSE	Employability
365.	Machine Learning	CS1534	B. Tech-CSE	Employability
366.	Cloud Computing	CT1520	B. Tech-CSE	Employability
367.	Wireless Networks	CS1535	B. Tech-CSE	Employability
368.	Big Data	CT1519	B. Tech-CSE	Employability
369.	Industrial/ Practical Training	CS1536	B. Tech-CSE	Skill Development
370.	e- Waste Management	CS1531	B. Tech-CSE	Employability
371.	Management Information Systems	CS1532	B. Tech-CSE	Employability
372.	Advanced Computer Architecture	CS1524	B. Tech-CSE	Employability
373.	Remote Sensing and GIS Techniques	CE1522	B. Tech-CSE	Employability
374.	Elements of civil Engineering	CE1523	B. Tech-CSE	Employability
375.	Modelling and Simulation of Engineering Systems	EE1522	B. Tech-CSE	Employability
376.	Renewable Energy Sources	ME1525	B. Tech-CSE	Employability
377.	Elements of Mechanical Engineering	ME1526	B. Tech-CSE	Employability
378.	Computer Networks	CS1507	B. Tech-CSE	Employability
379.	Object Oriented Programming	CT1506	B. Tech-CSE	Employability
380.	Cyber Laws	CS1508	B. Tech-CSE	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
381.	Open-Source Software	IT1505	B. Tech-CSE	Employability
382.	Fundamentals of Data Base Management Systems	IT1506	B. Tech-CSE	Employability
383.	Fuzzy Mathematics	MA1507	B. Tech-CSE	Employability
384.	Disaster Management	CE1534	B. Tech-CSE	Employability
385.	Solid Waste Management	CE1535	B. Tech-CSE	Employability
386.	Material Science	ME1535	B. Tech-CSE	Employability
387.	Automotive Electronics	EC1540	B. Tech-CSE	Employability
388.	Introduction to MPMC	EC1541	B. Tech-CSE	Employability
389.	Cloud Computing	CT1525	B. Tech-CSE	Employability
390.	Web Technologies	CS1511	B. Tech-CSE	Employability
391.	Virtual Reality	CS1513	B. Tech-CSE	Employability
392.	Scripting Languages	IT1510	B. Tech-CSE	Employability
393.	Big Data	IT1511	B. Tech-CSE	Employability
394.	Multi-variant analysis and Special Functions	MA1509	B. Tech-CSE	Employability
395.	Mobile Application Development	CS1520	B. Tech-CSE	Employability
396.	Real Time Systems	CS1521	B. Tech-CSE	Employability
397.	Social Networks	CS1519	B. Tech-CSE	Employability
398.	Statistical Methods using R Software	MA1510	B. Tech-CSE	Employability
399.	Micro Processors and Interfacing	EC1507	B. Tech-IT	Employability
400.	Object Oriented Analysis & Design	CT1514	B. Tech-IT	Employability
401.	Operating Systems	CT1511	B. Tech-IT	Employability
402.	Micro Processors and Interfacing Lab	EC1508	B. Tech-IT	Skill Development
403.	Computer Networks and Case Tools Lab	IT1508	B. Tech-IT	Skill Development
404.	Operating Systems Lab	IT1509	B. Tech-IT	Skill Development
405.	Compiler Design	CT1509	B. Tech-IT	Employability
406.	.Net Technologies	IT1512	B. Tech-IT	Employability
407.	Advanced Java and Web Technologies	IT1513	B. Tech-IT	Employability
408.	Computer Graphics	CT1510	B. Tech-IT	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
409.	Computer Architecture	IT1516	B. Tech-IT	Employability
410.	.Net Technologies Lab	IT1517	B. Tech-IT	Skill Development
411.	Advanced Java and Web Technologies Lab	IT1518	B. Tech-IT	Skill Development
412.	Mini Project	IT1519	B. Tech-IT	Skill Development
413.	Data Warehousing and Data Mining	CT1517	B. Tech-IT	Employability
414.	Multimedia Application Development	IT1522	B. Tech-IT	Employability
415.	Distributed Databases	CT1524	B. Tech-IT	Employability
416.	Human Computer Interaction	CT1518	B. Tech-IT	Employability
417.	Bio-Metrics	IT1523	B. Tech-IT	Employability
418.	Software Testing Methodologies	CT1522	B. Tech-IT	Employability
419.	Information Retrieval Systems	IT1524	B. Tech-IT	Employability
420.	Digital Image Processing	CT1521	B. Tech-IT	Employability
421.	Mobile Computing	IT1525	B. Tech-IT	Employability
422.	Software Project Management	CT1525	B. Tech-IT	Employability
423.	Mobile Application Lab	IT1527	B. Tech-IT	Skill Development
424.	Multimedia Application Development Lab	CT1523	B. Tech-IT	Skill Development
425.	Free and Open-Source Software Lab	IT1526	B. Tech-IT	Skill Development
426.	E-Commerce	IT1529	B. Tech-IT	Employability
427.	Cloud Computing	CT1520	B. Tech-IT	Employability
428.	Business Intelligence	IT1530	B. Tech-IT	Employability
429.	Big Data	CT1519	B. Tech-IT	Employability
430.	Soft Computing	IT1531	B. Tech-IT	Employability
431.	Computer Forensics	IT1532	B. Tech-IT	Employability
432.	Software Quality Assurance	IT1533	B. Tech-IT	Employability
433.	Industrial / Practical Training	IT1534	B. Tech-IT	Skill Development
434.	Remote Sensing and GIS Techniques	CE1522	B. Tech-IT	Employability
435.	Elements of civil Engineering	CE1523	B. Tech-IT	Employability
436.	Modelling and Simulation of Engineering Systems	EE1522	B. Tech-IT	Employability
437.	Renewable Energy Sources	ME1525	B. Tech-IT	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
438.	Elements of Mechanical Engineering	ME1526	B. Tech-IT	Employability
439.	Computer Networks	CS1507	B. Tech-IT	Employability
440.	Object Oriented Programming	CT1506	B. Tech-IT	Employability
441.	Cyber Laws	CS1508	B. Tech-IT	Employability
442.	Open-Source Software	IT1505	B. Tech-IT	Employability
443.	Fundamentals of Data Base Management Systems	IT1506	B. Tech-IT	Employability
444.	Fuzzy Mathematics	MA1507	B. Tech-IT	Employability
445.	Disaster Management	CE1534	B. Tech-IT	Employability
446.	Solid Waste Management	CE1535	B. Tech-IT	Employability
447.	Material Science	ME1535	B. Tech-IT	Employability
448.	Automotive Electronics	EC1540	B. Tech-IT	Employability
449.	Introduction to MPMC	EC1541	B. Tech-IT	Employability
450.	Cloud Computing	CT1525	B. Tech-IT	Employability
451.	Web Technologies	CS1511	B. Tech-IT	Employability
452.	Virtual Reality	CS1513	B. Tech-IT	Employability
453.	Scripting Languages	IT1510	B. Tech-IT	Employability
454.	Big Data	IT1511	B. Tech-IT	Employability
455.	Multi-variant analysis and Special Functions	MA1509	B. Tech-IT	Employability
456.	Network Management Systems	IT1519	B. Tech-IT	Employability
457.	Fundamentals of E-Commerce	IT1520	B. Tech-IT	Employability
458.	Statistical Methods using R Software	MA1510	B. Tech-IT	Employability
459.	Ground Improvement Techniques	CE2906	M. Tech-SE	Employability
460.	Advanced Concrete Technology and Structural Engineering lab	CE2908	M. Tech-SE	Skill Development
461.	Research Methodologies	BA2901	M. Tech-SE	Employability
462.	Advanced Design of Steel Structures	CE2912	M. Tech-SE	Employability
463.	Fracture Mechanics of Concrete	CE2914	M. Tech-SE	Employability
464.	Design of Sub-structures	CE2915	M. Tech-SE	Employability
465.	High Rise Buildings	CE2917	M. Tech-SE	Employability
466.	Theory of Elasticity	CE2901	M. Tech-SE	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
467.	Structural Dynamics	CE2902	M. Tech-SE	Employability
468.	Advanced Design of Concrete Structures	CE2903	M. Tech-SE	Employability
469.	Stability of Structures	CE2904	M. Tech-SE	Employability
470.	Earthquake Resistant Desing	CE290	M. Tech-SE	Employability
471.	Finite Element Analysis	CE2910	M. Tech-SE	Employability
472.	Theory of Plates and Shells	CE2911	M. Tech-SE	Employability
473.	Computer Applications in Structural Engineering Lab	CE2918	M. Tech-SE	Skill Development
474.	Linear and Non-Linear Optimization technique	MA2902	M. Tech-PEED	Employability
475.	Advanced Electric Drives	EE2912	M. Tech-PEED	Employability
476.	Research Methodology	EE2910	M. Tech-PEED	Employability
477.	Application of Power Electronics to Power Systems	EE2915	M. Tech-PEED	Employability
478.	Advanced Digital Control Systems	EE3915	M. Tech-PEED	Employability
479.	ARM Architecture and Programming	Ec2901	M. Tech-PEED	Employability
480.	Analysis of Power electronic converters	EE902	M. Tech-PEED	Employability
481.	Electrical machine modelling and analysis	EE2903	M. Tech-PEED	Employability
482.	Moder control theory	EE2904	M. Tech-PEED	Employability
483.	Power Electronic System Simulation Lab	EE2908	M. Tech-PEED	Skill Development
484.	Switched Mode power converters	EE2912	M. Tech-PEED	Employability
485.	Power Electronics and Electric Drives Lab	EE2919	M. Tech-PEED	Skill Development
486.	HVDC Transmission Systems	EE2907	M. Tech-PEED	Employability
487.	AI Techniques	EE2917	M. Tech-PEED	Employability
488.	Computational Methods in Engineering	MA2901	M. Tech-MD	Employability
489.	Advanced Mechanics of Solids	ME2901	M. Tech-MD	Employability
490.	Analysis and Synthesis of Mechanisms	ME2902	M. Tech-MD	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
491.	Mechanical Vibrations	ME2903	M. Tech-MD	Employability
492.	Gear Engineering	ME2904	M. Tech-MD	Employability
493.	Rotor Dynamics	ME2905	M. Tech-MD	Employability
494.	Experimental Stress Analysis	ME2906	M. Tech-MD	Employability
495.	Product Design	ME2907	M. Tech-MD	Employability
496.	Machine Dynamics Lab	ME2908	M. Tech-MD	Skill Development
497.	Research Methodologies	ME2905	M. Tech-MD	Employability
498.	Finite Element Methods	ME2909	M. Tech-MD	Employability
499.	Design with Advanced Materials	ME2910	M. Tech-MD	Employability
500.	Design for Manufacturing and Assembly	ME2911	M. Tech-MD	Employability
501.	Fracture Mechanics	ME2912	M. Tech-MD	Employability
502.	Condition Monitoring	ME2913	M. Tech-MD	Employability
503.	Rapid Tooling and Prototyping	ME2914	M. Tech-MD	Employability
504.	Theory of Elasticity	ME2915	M. Tech-MD	Employability
505.	Geometric Modelling	ME2916	M. Tech-MD	Employability
506.	Tribology	ME2917	M. Tech-MD	Employability
507.	Modelling and Analysis Lab	ME2918	M. Tech-MD	Skill Development
508.	Linear and Non-Linear Optimization Techniques	MA2902	M. Tech-ES	Employability
509.	Research Methodologies	HS2901	M. Tech-ES	Employability
510.	Principles of Digital Design Using FPGA	EC2903	M. Tech-ES	Employability
511.	Advanced Digital Signal Processing	EC2904	M. Tech-ES	Employability
512.	Advanced Microcontrollers	EC2905	M. Tech-ES	Employability
513.	Embedded Networking	EC2907	M. Tech-ES	Employability
514.	Advanced Digital Design Lab	EC2910	M. Tech-ES	Skill Development
515.	Embedded Real Time Operating Systems	EC2915	M. Tech-ES	Employability
516.	Embedded System Design	EC2916	M. Tech-ES	Employability
517.	Advanced Embedded Systems	EC2911	M. Tech-ES	Employability
518.	Principles of CMOS Analog Design	EC2912	M. Tech-ES	Employability
519.	Internet of Things	EC2913	M. Tech-ES	Employability

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
520.	Embedded Systems Lab	EC2920	M. Tech-ES	Skill Development
521.	Low Power CMOS Digital Design	EC2909	M. Tech-ES	Employability
522.	Advanced Computer Networks	EC2917	M. Tech-ES	Employability
523.	Statistics with R Programming	MA2903	M. Tech-CSE	Employability
524.	Advanced Data Structures & Algorithm Analysis	CS2901	M. Tech-CSE	Employability
525.	Object Oriented Software Engineering	CS2903	M. Tech-CSE	Employability
526.	Business Intelligence	CS2904	M. Tech-CSE	Employability
527.	Advanced computer architecture	CS2905	M. Tech-CSE	Employability
528.	Digital Image Processing	CS2906	M. Tech-CSE	Employability
529.	Advanced Data Structures & Algorithm and R Programming Lab	CS2908	M. Tech-CSE	Skill Development
530.	Research Methodology	BA2901	M. Tech-CSE	Employability
531.	Information Security	CS2909	M. Tech-CSE	Employability
532.	Scripting Languages	CS2910	M. Tech-CSE	Employability
533.	Data Analytics	CS2911	M. Tech-CSE	Employability
534.	Advanced Operating Systems	CS2912	M. Tech-CSE	Employability
535.	Machine Learning	CS2913	M. Tech-CSE	Employability
536.	Software Testing Methodologies	CS2914	M. Tech-CSE	Employability
537.	Soft Computing	CS2915	M. Tech-CSE	Employability
538.	Internet of Things	CS2916	M. Tech-CSE	Employability
539.	Information Security & Scripting Languages Lab	CS2917	M. Tech-CSE	Employability
540.	Business Environment and Legislation	BA2904	MBA	Employability
541.	Business Law	BA2905	MBA	Entrepreneurship
542.	E-Business	BA2915	MBA	Entrepreneurship
543.	Training & Development	BA2921	MBA	Entrepreneurship
544.	Industrial Relations and Labour Laws	BA2922	MBA	Entrepreneurship
545.	Sales & Distribution Management	BA2925	MBA	Entrepreneurship
546.	Compensation Management	BA2928	MBA	Entrepreneurship

S. No	Name of the Course	Course Code	Programme Name	Focus on Employability/ Entrepreneurship/ Skill Development
547.	Information Technology Lab for business Management	BA2906	MBA	Skill Development
548.	Business communication	EG2901	MBA	Employability
549.	Managerial Economics and Financial Analysis	BA2902	MBA	Entrepreneurship
550.	Accounting for Managers	BA2903	MBA	Employability
551.	Financial Management	BA2907	MBA	Employability
552.	Marketing Management	BA2908	MBA	Employability
553.	Human Resource Management	BA2909	MBA	Employability
554.	Production and Operation Management	BA2910	MBA	Employability
555.	International Business	BA2911	MBA	Employability
556.	Organizational Behaviour	BA2912	MBA	Employability


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COURSE STRUCTURE

I Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3501	Functional English	3	-	-	3
2	MA3501	Linear Algebra and Calculus	3	1	-	4
3	PH3501	Engineering Physics	3	-	-	3
4	CT3501	Problem Solving Using C *	3	-	2	4
5	ME3503	Engineering Graphics *	2	-	4	4
6	EG3502	Functional English Lab	-	-	2	1
7	PH3503	Engineering Physics Lab	-	-	2	1
Total			14	1	10	20
8	EN3501	Environmental Studies (Mandatory Non-Credit Course)	2	-	-	-

* Integrated Course with Theory and Laboratory

I Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3503	Professional Communication	2	-	-	2
2	MA3505	Integral Transforms and Vector Calculus	3	1	-	4
3	CH3501	Engineering Chemistry	3	-	-	3
4	CE3501	Applied Mechanics	3	1	-	4
5	UH3501	Universal Human Values 2: Understanding Harmony	2	1	-	3
6	EG3504	Professional Communication Lab	-	-	4	2
7	CH3502	Engineering Chemistry Lab	-	-	2	1
8	CE3502	Applied Mechanics Lab & Building Trade Practice	-	-	2	1
Total			13	3	8	20
9	BA3501	Constitution of India (Mandatory Non-Credit Course)	2	-	-	-

L : Lecture T : Tutorial P : Practical




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I Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3501	Functional English	3	-	-	3
2	MA3501	Linear Algebra and Calculus	3	1	-	4
3	CH3503	Applied Chemistry	3	-	-	3
4	CT3501	Problem Solving Using C *	3	-	2	4
5	UH3501	Universal Human Values 2: Understanding Harmony	2	1	-	3
6	CH3504	Applied Chemistry Lab	-	-	2	1
7	EG3502	Functional English Lab	-	-	2	1
Total			14	2	6	19
8	BA3501	Constitution of India (Mandatory Non-Credit Course)	2	-	-	-

* Integrated Course with Theory and Laboratory

I Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3503	Professional Communication	2	-	-	2
2	MA3505	Integral Transforms and Vector Calculus	3	1	-	4
3	PH3504	Solid State Physics	3	-	-	3
4	EE3504	Circuit Theory - I	2	1	-	3
5	MA3506	Discrete Mathematics	2	1	-	3
6	ME3501	Engineering Drawing	1	-	4	3
7	EG3504	Professional Communication Lab	-	-	4	2
8	PH3505	Solid State Physics Lab	-	-	2	1
Total			13	3	10	21
9	EN3501	Environmental Studies (Mandatory Non-Credit Course)	2	-	-	-

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I Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3501	Functional English	3	-	-	3
2	MA3501	Linear Algebra and Calculus	3	1	-	4
3	PH3502	Physics for Engineers	3	-	-	3
4	CT3501	Problem Solving Using C *	3	-	2	4
5	ME3503	Engineering Graphics *	2	-	4	4
6	EG3502	Functional English Lab	-	-	2	1
7	PH3503	Engineering Physics Lab	-	-	2	1
Total			14	1	10	20
8	EN3501	Environmental Studies (Mandatory Non-Credit Course)	2	-	-	-

* Integrated Course with Theory and Laboratory

I Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3503	Professional Communication	2	-	-	2
2	MA3505	Integral Transforms and Vector Calculus	3	1	-	4
3	CH3504	Chemistry for Engineers	3	-	-	3
4	ME3504	Engineering Mechanics	3	1	-	4
5	UH3501	Universal Human Values 2: Understanding Harmony	2	1	-	3
6	EG3504	Professional Communication Lab	-	-	4	2
7	ME3505	Engineering Workshop	-	-	2	1
8	ME3506	Engineering Mechanics Lab and Fuel & Lubricants Lab	-	-	2	1
Total			13	3	8	20
9	BA3501	Constitution of India (Mandatory Non-Credit Course)	2	-	-	-

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I Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3501	Functional English	3	-	-	3
2	MA350	Linear Algebra and Calculus	3	1	-	4
3	CH3503	Applied Chemistry	3	-	-	3
4	CT3501	Problem Solving Using C *	3	-	2	4
5	UH3501	Universal Human Values 2: Understanding Harmony	2	1	-	3
6	EC3503	Electronic Workshop	-	-	4	2
7	EG3502	Functional English Lab	-	-	2	1
8	CH3504	Applied Chemistry Lab	-	-	2	1
Total			14	2	10	21
9	BA3501	Constitution of India (Mandatory Non-Credit Course)	2	-	-	-

* Integrated Course with Theory and Laboratory

I Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3503	Professional Communication	2	-	-	2
2	MA3505	Integral Transforms and Vector Calculus	3	1	-	4
3	EE3502	Linear Electrical Networks	3	-	-	3
4	PH3504	Solid State Physics	3	-	-	3
5	ME3501	Engineering Drawing	1	-	4	3
6	EG3504	Professional Communication Lab	-	-	4	2
7	PH3506	Solid State Physics Lab	-	-	4	2
Total			12	1	12	19
8	EN3501	Environmental Studies (Mandatory Non-Credit Course)	2	-	-	-

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I Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3501	Functional English	3	-	-	3
2	MA350	Linear Algebra and Calculus	3	1	-	4
3	PH3509	Applied Physics	3	-	-	3
4	CT3502	Programming for Problem Solving	3	-	-	3
5	UH3501	Universal Human Values 2: Understanding Harmony	2	1	-	3
6	EG3502	Functional English Lab	-	-	2	1
7	PH3510	Applied Physics Lab	-	-	2	1
8	CT3503	C Programming Lab	-	-	4	2
Total			14	2	8	20
9	BA3501	Constitution of India (Mandatory Non-Credit Course)	2	-	-	-

I Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3503	Professional Communication	2	-	-	2
2	MA3505	Integral Transforms and Vector Calculus	3	1	-	4
3	EC3502	Basic Electronic Devices	2	-	-	2
4	CT3504	Python Programming	3	-	-	3
5	CT3505	Data Structures	3	-	-	3
6	EG3504	Professional Communication Lab	-	-	4	2
7	CT3506	Python Programming Lab	-	-	4	2
8	CT3507	Data Structures Lab	-	-	4	2
Total			13	1	12	20
9	EN3501	Environmental Studies (Mandatory Non-Credit Course)	2	-	-	-

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I Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3501	Functional English	3	-	-	3
2	MA3501	Linear Algebra and Calculus	3	1	-	4
3	CH3506	Applied Chemistry	3	-	-	3
4	EC3501	Elements of Electronics Engineering	3	-	-	3
5	CT3502	Programming for Problem Solving	3	-	-	3
6	EG3502	Functional English Lab	-	-	2	1
7	CH3507	Applied Chemistry Lab	-	-	2	1
8	CT3503	C Programming Lab	-	-	4	2
Total			15	1	8	20
9	EN3501	Environmental Studies (Mandatory Non-Credit Course)	2	-	-	-

I Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EG3503	Professional Communication	2	-	-	2
2	MA3505	Integral Transforms and Vector Calculus	3	1	-	4
3	PH3509	Applied Physics	3	-	-	3
4	CT3505	Data Structures	3	-	-	3
5	UH3501	Universal Human Values 2: Understanding Harmony	2	1	-	3
6	EG3504	Professional Communication Lab	-	-	4	2
7	PH3510	Applied Physics Lab	-	-	2	1
8	CT3507	Data Structures Lab	-	-	4	2
Total			13	2	10	20
9	BA3501	Constitution of India (Mandatory Non-Credit Course)	2	-	-	-

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II Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2504	Mechanics of Solids	3	1	-	3
2	CE2505	Mechanics of Fluids	3	1	-	3
3	CE2506	Building Materials and Construction	2	1	-	2
4	CE2507	Surveying	3	1	-	3
5	ME2502	Elements of Mechanical and Electrical Engineering	4	-	-	3
6	CE2508	Building Planning and Drawing	2	-	3	3
7	CE2509	Mechanics of Solids Lab	-	-	4	2
8	CE2510	Survey Field Work	-	-	4	2
Total			17	4	11	21
9	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-

II Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA2509	Numerical and Statistical Methods	3	1	-	3
2	CE2511	Structural Analysis	2	1	-	2
3	CE2512	Hydraulics and Hydraulic Machines	2	1	-	2
4	CE2513	Concrete Technology	4	-	-	3
5	CE2514	Engineering Geology and Geomatics *	3	-	2	3
6		Open Elective-I (see list of Open Electives)	4	-	-	3
7	CE2517	Fluid Mechanics and Hydraulic Machines Lab	-	-	4	2
8	CE2518	Concrete Technology Lab	-	-	4	2
Total			18	3	10	20
9	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-
10		Optional Elective - I	-	-	-	3
	CE2519	i) Interior Design				
	CE2520	ii) Building Bye Laws and Scientific Planning				
	CT2505	iii) Data Structures				
11	CE2521	Optional Elective - II (MOOCs) Student shall opt from the list of MOOCs given by the Department)	-	-	-	2

* Integrated Course with Theory and Laboratory

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III Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2522	Theory of Structures	3	1	-	3
2	CE2523	Geotechnical Engineering	2	1	-	2
3	CE2524	Hydrology and Water Resources Engineering	4	-	-	3
4	CE2525	Water and Waste Water Engineering	3	1	-	3
5		Professional Elective - I	4	-	-	3
6		Open Elective-II (see list of Open Electives)	4	-	-	3
7	CE2532	Geotechnical Engineering Lab	-	-	4	2
8	CE2533	Water and Waste Water Engineering Lab	-	-	4	2
Total			20	3	8	21
9		Optional Elective - III	-	-	-	3
	CE2534	i) Infrastructure Development				
	ME2509	ii) Basics of Power Plant Engineering				
	CT2507	iii) Object Oriented Programming through JAVA				
10	CE2535	Optional Elective - IV (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

III Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2536	Foundation Engineering	3	-	-	2
2	CE2537	Highway Engineering	4	-	-	3
3	CE2538	Design of RC Structures	3	1	-	3
4		Professional Elective - II	4	-	-	3
5		Open Elective-III (see list of Open Electives)	4	-	-	3
6	CE2545	Structural Engineering Lab	-	-	4	2
7	CE2546	Highway Engineering Lab	-	-	4	2
8	CE2547	Mini Project / Survey Camp	-	-	4	2
Total			18	1	12	20
9		Optional Elective - V	-	-	-	3
	CE2548	i) Smart Buildings and Automation				
	CE2549	ii) Building Information Modeling				
	CT2513	iii) Database Management Systems				
10	CE2550	Optional Elective - VI (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

* Integrated Course with Theory and Laboratory

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IV Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2551	Project Management and Finance	4	-	-	3
2	CE2552	Estimation, Costing and Valuation	3	1	-	3
3	CE2553	Design of Steel Structures	3	1	-	3
4		Professional Elective - III	4	-	-	3
5		Professional Elective - IV	4	-	-	3
6		Open Elective-IV(see list of Open Electives)	4	-	-	3
7	CE2564	Computer Applications in Civil Engineering Lab.	-	-	4	2
8	CE2565	Internship / Industrial Training / Practical Training	-	-	-	2
Total			22	2	4	22
9		Optional Elective - VII	-	-	-	3
	CE2566	i) Project Scheduling and Contracts				
	MA2515	ii) Optimization Techniques				
	BA2504	iii) Entrepreneurship				
10	CE2567	Optional Elective - VIII (MOOCs)	-	-	-	2
Students shall opt from the list of MOOCs given by the Department)						

IV Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	4	-	-	3
2		Professional Elective - VI	4	-	-	3
3	CE2576	Project	-	-	20	10
Total			8	-	20	16

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Open Elective - I

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2515 Elements of Civil Engineering (Other than CE)	CE	4	-	-	3
2	CE2516 Building Services	CE	4	-	-	3
3	EE2515 Electrical Materials	EEE	4	-	-	3
4	EE2516 Control Systems Engineering (Other than EEE & ECE)	EEE	4	-	-	3
5	ME2520 Elements of Manufacturing Processes (Other than ME)	ME	4	-	-	3
6	ME2521 Automotive Engineering (Other than ME)	ME	4	-	-	3
7	EC2531 Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	4	-	-	3
8	EC2532 Fundamentals of Communications (Other than ECE)	ECE	4	-	-	3
9	CT2514 Computer Graphics (Other than IT)	CSE	4	-	-	3
10	CT2507 Object Oriented Programming through Java (other than CSE & IT)	CSE	4	-	-	3
11	CT2515 Systems Software	IT	4	-	-	3
12	IT2502 Web Programming (Other than CSE & IT)	IT	4	-	-	3
13	MA2516 Mathematical Cryptography (Other than CSE)	BS&H	4	-	-	3
14	PH2508 Semiconductor Physics (Other than ECE)	BS&H	4	-	-	3

Open Elective - II

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2530 Geoinformatics (other than CE)	CE	4	-	-	3
2	CE2531 Environmental Sanitation	CE	4	-	-	3
3	EE2523 Modeling & Simulation of Engineering Systems	EEE	4	-	-	3
4	EE2524 Power Systems Engineering (Other than EEE)	EEE	4	-	-	3
5	ME2532 Elements of Mechanical Transmission (Other than ME)	ME	4	-	-	3
6	ME2533 Material Handling Equipment	ME	4	-	-	3
7	EC2543 Automotive Electronics	ECE	4	-	-	3
8	EC2544 Introduction to MEMS (other than ECE)	ECE	4	-	-	3
9	CS2508 Data Science	CSE	4	-	-	3
10	CT2524 Virtual and Augmented Reality (other than IT)	CSE	4	-	-	3
11	IT2505 Open Source Software	IT	4	-	-	3
12	IT2506 Cyber Laws	IT	4	-	-	3
13	MA2517 Quality, Reliability and Operations Research	BS&H	4	-	-	3

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Open Elective - III

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2543 Hydrology (Other than CE)	CE	4	-	-	3
2	CE2544 Planning for Sustainable Development	CE	4	-	-	3
3	EE2531 Electrical and Hybrid Vehicles	EEE	4	-	-	3
4	EE2532 Power Plant Instrumentation	EEE	4	-	-	3
5	ME2541 Material Science (Other than ME)	ME	4	-	-	3
6	ME2542 Renewable Energy Sources (Other than ME)	ME	4	-	-	3
7	EC2523 Assistive Technologies (Other than ECE)	ECE	4	-	-	3
8	EC2507 Bio-Medical Engineering (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2512 Node and Angular JS	CSE	4	-	-	3
10	CS2513 Cyber Security	CSE	4	-	-	3
11	CT2529 Scripting Languages (Other than CSE)	IT	4	-	-	3
12	CT2531 Software Project Management (Other than CSE)	IT	4	-	-	3
13	MA2518 Elements of Stochastic Processes	BS&H	4	-	-	3
14	EG2505 Academic Communication	ENGLISH	4	-	-	3

Open Elective - IV

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2562 Disaster Management (Other than CE)	CE	4	-	-	3
2	CE2563 Repair and Retrofitting Techniques	CE	4	-	-	3
3	EE2542 Modern Optimization Techniques	EEE	4	-	-	3
4	EE2543 Electrical Power Utilization (Other than EEE)	EEE	4	-	-	3
5	ME2553 Green Engineering	ME	4	-	-	3
6	ME2554 Non Destructive Evaluation (Other than ME)	ME	4	-	-	3
7	EC2563 Cyber Physical Systems	ECE	4	-	-	3
8	EC2508 Signals and Systems (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2521 Digital Forensics	CSE	4	-	-	3
10	CS2522 Business Intelligence & Decision Support Systems	CSE	4	-	-	3
11	IT2521 Adhoc and Sensor Networks	IT	4	-	-	3
12	CT2537 Information Retrieval Systems (Other than CSE)	IT	4	-	-	3
13	MA2514 Fuzzy Logic (Other than EEE, ME & CSE)	BS&H	4	-	-	3

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Professional Electives

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			L	T	P	
		Professional Elective - I	4	-	-	3
	CE2526	i) Advanced Strength of Materials				
	CE2527	ii) GIS and GPS				
	CE2528	iii) Green Buildings				
	CE2529	iv) Construction Management				
		Professional Elective - II	4	-	-	3
	CE2539	i) Advanced Structural Analysis				
	CE2540	ii) Environmental Pollution and Its Control				
	CE2541	iii) Ground Water Development and Management				
	CE2542	iv) Ground Improvement Techniques				
		Professional Elective - III	4	-	-	3
	CE2554	i) Pre-stressed Concrete				
	CE2555	ii) Advanced Foundation Engineering				
	CE2556	iii) Traffic Engineering				
	CE2557	iv) Industrial Wastewater Management				
		Professional Elective - IV	4	-	-	3
	CE2558	i) Advanced Design of RC Structures				
	CE2559	ii) Hydraulic Structures				
	CE2560	iii) Geosynthetics				
	CE2561	iv) Disaster Preparedness and Planning				
		Professional Elective - V	4	-	-	3
	CE2568	i) Earthquake Resistant Design of Structures				
	CE2569	ii) Logistics Infrastructure Engineering				
	CE2570	iii) Finite Element Methods				
	CE2571	iv) Design and Drawing of Irrigation Structures				
		Professional Elective - VI	4	-	-	3
	CE2572	i) Pre-Engineered Buildings				
	CE2573	ii) Urban Transportation Planning				
	CE2574	iii) Soil Dynamics and Machine Foundations				
	CE2575	iv) Environmental Impact Assessment				

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II Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE2508	DC Machines and Transformers	3	1	-	3
2	EE2509	Electric Circuit Analysis	3	1	-	3
3	EC2503	Analog Electronics	3	1	-	3
4	EE2510	Power Systems - I	3	1	-	3
5	MA2507	Numerical Methods with Computer Applications *	3	-	2	3
6	ME2504	Mechanical Engineering Lab	-	-	4	2
7	EE2511	Electric Circuits Lab	-	-	4	2
8	EC2504	Analog Electronics Lab	-	-	4	2
Total			15	4	14	21
9	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-

* Integrated Course with Theory and Laboratory

II Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC2505	Digital Circuit Design	3	1	-	3
2	EE2512	Control Systems	3	1	-	3
3	BA2501	Engineering Economics and Project Management	3	-	-	2
4	EE2513	Induction and Synchronous Machines	3	1	-	3
5	EE2514	Electromagnetic Fields	3	1	-	3
6		Open Elective-I (see list of Open Electives)	4	-	-	3
7	EC2506	Digital Circuit Design Lab	-	-	4	2
8	EE2517	Electrical Machines - I Lab	-	-	4	2
Total			19	4	8	21
9	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-
10		Optional Elective - I	-	-	-	3
	EC2507	i) Biomedical Engineering				
	CT2512	ii) Computer Organisation and Architecture				
	EE2518	iii) Introduction to Quantum Mechanics for Engineers				
11	EE2519	Optional Elective - II (MOOCs) Student shall opt from the list of MOOCs given by the Department)	-	-	-	2

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III Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE2520	Electrical Measurements & Instrumentation	4	-	-	3
2	EC2508	Signals and Systems	3	1	-	3
3	EE2521	Power Systems - II	3	1	-	3
4		Professional Elective - I	4	-	-	3
5		Open Elective-II (see list of Open Electives)	4	-	-	3
6	EE2525	Control Systems Lab	-	-	4	2
7	EE2526	Electrical Machines- II Lab	-	-	4	2
8	EE2527	Mini Project	-	-	4	2
Total			18	2	12	21
9		Optional Elective - III	-	-	-	3
	ME2549	i) Mechatronics				
	CT2507	ii) Object Oriented Programming Through Java				
	EE2528	iii) Control System Design				
10	EE2529	Optional Elective - IV (MOOCs)	-	-	-	2
Students shall opt from the list of MOOCs given by the Department)						

III Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE2530	Power Electronics	3	1	-	3
2	MA251	Probability and Fuzzy Mathematics	3	1	-	3
3	EC2510	Microprocessors, Microcontrollers and Its Applications **	3	1	-	3
4		Professional Elective - II	4	-	-	3
5		Open Elective-III(see list of Open Electives)	4	-	-	3
6	EE2533	Electrical Systems Simulation Lab	-	-	4	2
7	EE2534	Electrical Measurements & Instrumentation Lab	-	-	4	2
8	EC2515	Microprocessors, Microcontrollers and Its Applications Lab	-	-	4	2
Total			17	3	12	21
9		Optional Elective - V	-	-	-	3
	CT2513	i) Data Base Management Systems				
	EC2516	ii) Nano Electronics				
	EE2535	iii) Solar and Wind Energy Systems				
10	EE2536	Optional Elective - VI (MOOCs)	-	-	-	2
Students shall opt from the list of MOOCs given by the Department)						

* Project Based Theory Course

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IV Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE2537	Power System Analysis	3	1	-	3
2		Professional Elective - III	3	1	-	3
3		Professional Elective - IV	3	1	-	3
4		Open Elective-IV(see list of Open Electives)	4	-	-	3
5	MA2512	Engineering Optimization	2	1	-	2
6	EE2544	Power Electronics Lab	-	-	4	2
7	EE2545	Power Systems Lab	-	-	4	2
8	EE2546	Internship / Industrial Training / Practical Training	-	-	4	2
Total			15	4	12	20
9		Optional Elective - VII	-	-	-	3
	EC2519	i) Analog and Digital Communication				
	CS2502	ii) Introduction to Python Programming				
	EE2547	iii) Integration of Renewable Energy Sources				
10	EE2548	Optional Elective - VIII (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

IV Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	3	1	-	3
2		Professional Elective - VI	3	1	-	3
3	EE2557	Project	-	-	20	10
Total			6	2	20	16

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Open Elective - I

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2515 Elements of Civil Engineering (Other than CE)	CE	4	-	-	3
2	CE2516 Building Services	CE	4	-	-	3
3	EE2515 Electrical Materials	EEE	4	-	-	3
4	EE2516 Control Systems Engineering (Other than EEE & ECE)	EEE	4	-	-	3
5	ME2520 Elements of Manufacturing Processes (Other than ME)	ME	4	-	-	3
6	ME2521 Automotive Engineering (Other than ME)	ME	4	-	-	3
7	EC2531 Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	4	-	-	3
8	EC2532 Fundamentals of Communications (Other than ECE)	ECE	4	-	-	3
9	CT2514 Computer Graphics (Other than IT)	CSE	4	-	-	3
10	CT2507 Object Oriented Programming through Java (other than CSE & IT)	CSE	4	-	-	3
11	CT2515 Systems Software	IT	4	-	-	3
12	IT2502 Web Programming (Other than CSE & IT)	IT	4	-	-	3
13	MA2516 Mathematical Cryptography (Other than CSE)	BS&H	4	-	-	3
14	PH2508 Semiconductor Physics (Other than ECE)	BS&H	4	-	-	3

Open Elective - II

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2530 Geoinformatics (other than CE)	CE	4	-	-	3
2	CE2531 Environmental Sanitation	CE	4	-	-	3
3	EE2523 Modeling & Simulation of Engineering Systems	EEE	4	-	-	3
4	EE2524 Power Systems Engineering (Other than EEE)	EEE	4	-	-	3
5	ME2532 Elements of Mechanical Transmission (Other than ME)	ME	4	-	-	3
6	ME2533 Material Handling Equipment	ME	4	-	-	3
7	EC2543 Automotive Electronics	ECE	4	-	-	3
8	EC2544 Introduction to MEMS (other than ECE)	ECE	4	-	-	3
9	CS2508 Data Science	CSE	4	-	-	3
10	CT2524 Virtual and Augmented Reality (other than IT)	CSE	4	-	-	3
11	IT2505 Open Source Software	IT	4	-	-	3
12	IT2506 Cyber Laws	IT	4	-	-	3
13	MA2517 Quality, Reliability and Operations Research	BS&H	4	-	-	3

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Open Elective - III

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2543 Hydrology (Other than CE)	CE	4	-	-	3
2	CE2544 Planning for Sustainable Development	CE	4	-	-	3
3	EE2531 Electrical and Hybrid Vehicles	EEE	4	-	-	3
4	EE2532 Power Plant Instrumentation	EEE	4	-	-	3
5	ME2541 Material Science (Other than ME)	ME	4	-	-	3
6	ME2542 Renewable Energy Sources (Other than ME)	ME	4	-	-	3
7	EC2523 Assistive Technologies (Other than ECE)	ECE	4	-	-	3
8	EC2507 Bio-Medical Engineering (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2512 Node and Angular JS	CSE	4	-	-	3
10	CS2513 Cyber Security	CSE	4	-	-	3
11	CT2529 Scripting Languages (Other than CSE)	IT	4	-	-	3
12	CT2531 Software Project Management (Other than CSE)	IT	4	-	-	3
13	MA2518 Elements of Stochastic Processes	BS&H	4	-	-	3
14	EG2505 Academic Communication	ENGLISH	4	-	-	3

Open Elective - IV

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2562 Disaster Management (Other than CE)	CE	4	-	-	3
2	CE2563 Repair and Retrofitting Techniques	CE	4	-	-	3
3	EE2542 Modern Optimization Techniques	EEE	4	-	-	3
4	EE2543 Electrical Power Utilization (Other than EEE)	EEE	4	-	-	3
5	ME2553 Green Engineering	ME	4	-	-	3
6	ME2554 Non Destructive Evaluation (Other than ME)	ME	4	-	-	3
7	EC2563 Cyber Physical Systems	ECE	4	-	-	3
8	EC2508 Signals and Systems (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2521 Digital Forensics	CSE	4	-	-	3
10	CS2522 Business Intelligence & Decision Support Systems	CSE	4	-	-	3
11	IT2521 Adhoc and Sensor Networks	IT	4	-	-	3
12	CT2537 Information Retrieval Systems (Other than CSE)	IT	4	-	-	3
13	MA2514 Fuzzy Logic (Other than EEE, ME & CSE)	BS&H	4	-	-	3

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Professional Electives

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			L	T	P	
		Professional Elective - I	4	-	-	3
	EE2522	i) Switch Gear and Protection				
	CT2519	ii) Computer Networks				
	EC2509	iii) Pulse and Integrated Circuits				
	CT2505	iv) Data Structures				
		Professional Elective - II	4	-	-	3
	EC2511	i) Digital Signal Processing				
	EC2512	ii) Embedded System Design				
	EC2513	iii) Principles of VLSI Design				
	EC2514	iv) DSP Processors and Architecture				
		Professional Elective - III	3	1	-	3
	CT2534	i) Big Data Analytics				
	EC2517	ii) CMOS Digital IC Design				
	EE2538	iii) Power Semiconductor Drives				
	EE2539	iv) Flexible AC Transmission Systems				
		Professional Elective - IV	3	1	-	3
	CS2513	i) Cyber Security				
	EC2518	ii) Digital Image Processing				
	EE2540	iii) Power System Operation & Control				
	EE2541	iv) High Voltage Engineering				
		Professional Elective - V	-	-	-	3
	EE2549	i) Electrical Distribution System	3	1	-	
	EE2550	ii) Artificial Intelligence Techniques	4	-	-	
	EE2551	iii) Advanced Control Systems	3	1	-	
	EE2552	iv) Energy Audit, Conservation and Management	3	1	--	
		Professional Elective - VI	3	1	-	3
	EE2553	i) Special Electrical Machines				
	EE2554	ii) Digital Control Systems				
	EE2555	iii) Utilization of Electrical Energy				
	EE2556	iv) HVDC Transmission Systems				

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II Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE2501	Elements of Electrical and Electronics Engineering	3	1	-	3
2	ME2510	Engineering Thermodynamics	3	1	-	3
3	ME2511	Kinematics of Machines	3	1	-	3
4	ME2512	Solid Mechanics	3	1	-	3
5	ME2513	Engineering Metallurgy	4	-	-	3
6	EE2502	Electrical and Electronics Engineering Lab	-	-	2	1
7	ME2514	Solid Mechanics and Metallurgy Lab	-	-	4	2
8	ME2515	Computer Aided Modeling Lab	-	-	2	1
Total			16	4	8	19
9	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-

II Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	ME2516	Manufacturing Processes	4	-	-	3
2	ME2517	Applied Thermodynamics	3	1	-	3
3	ME2518	Dynamics of Machines	3	1	-	3
4	ME2519	Fluid Mechanics	3	1	-	3
5		Open Elective-I (see list of Open Electives)	4	-	-	3
6	ME2522	Thermal Engineering Lab	-	-	4	2
7	ME2523	Manufacturing Processes Lab	-	-	4	2
8	ME2524	Machine Dynamics Lab	-	-	2	1
Total			17	3	10	20
9	NS2501	NSS /Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-
10		Optional Elective - I i) Control Systems ME2525 ii) Nano Technology CT2506 iii) Digital Logic Design	-	-	-	3
11	ME2526	Optional Elective - II (MOOCs) Student shall opt from the list of MOOCs given by the Department)	-	-	-	2

III Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA2509	Numerical and Statistical Methods	3	1	-	3
2	ME2527	Metal Cutting and Machine Tools	4	-	-	3
3	ME2528	Turbo Machinery	3	1	-	3
4		Professional Elective - I	4	-	-	3
5		Open Elective-II (see list of Open Electives)	4	-	-	3
6	ME2534	Fluid Mechanics and Turbo Machinery Lab	-	-	4	2
7	ME2535	Machine Tools Lab	-	-	4	2
8	ME2536	Computer Aided Machine Drawing Lab	-	-	4	2
Total			18	2	12	21
9		Optional Elective - III	-	-	-	3
	CT2514	i) Computer Graphics				
	EE2503	ii) Fuzzy Logic Systems				
	EC2520	iii) Micro Processors and Interfacing				
10	ME2537	Optional Elective - IV (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

III Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	BA2503	Engineering Economics and Accountancy	4	-	-	3
2	ME2538	Metrology and Instrumentation	3	1	-	3
3	ME2539	Design of Machine Members	3	1	-	3
4	ME2540	Heat Transfer	3	1	-	3
5		Professional Elective - II	4	-	-	3
6		Open Elective-III (see list of Open Electives)	4	-	-	3
7	ME2546	Heat Transfer Lab	-	-	4	2
8	ME2547	Metrology and Instrumentation Lab	-	-	4	2
9	ME2548	Computer Aided Engineering Analysis Lab	-	-	2	1
Total			21	3	10	23
10		Optional Elective - V	-	-	-	3
	CT2507	i) Object Oriented Programming through Java				
	ME2549	ii) Mechatronics				
	EC2512iii)	Embedded System Design				
11	ME2550	Optional Elective - VI (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

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IV Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	ME2551	Industrial Engineering and Management	3	1	-	3
2	ME2552	CAD / CAM	3	1	-	3
3		Professional Elective - III	4	-	-	3
4		Professional Elective - IV	4	-	-	3
5		Open Elective-IV(see list of Open Electives)	4	-	-	3
6	ME2562	Simulation Lab	-	-	4	2
7	ME2563	Mini Project	-	-	4	2
8	ME2564	Internship / Industrial Training / Practical Training	-	-	-	2
Total			18	2	8	21
9		Optional Elective - VII	-	-	-	3
	CT2534	i) Big Data Analytics				
	CT2512	ii) Computer Organization and Architecture				
	ME2565	iii) Cryogenics				
10	ME2566	Optional Elective - VIII (MOOCs)	-	-	-	2
Students shall opt from the list of MOOCs given by the Department)						

IV Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	4	-	-	3
2		Professional Elective - VI	4	-	-	3
3	ME2575	Project	-	-	20	10
Total			8	-	20	16

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Open Elective - I

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2515 Elements of Civil Engineering (Other than CE)	CE	4	-	-	3
2	CE2516 Building Services	CE	4	-	-	3
3	EE2515 Electrical Materials	EEE	4	-	-	3
4	EE2516 Control Systems Engineering (Other than EEE & ECE)	EEE	4	-	-	3
5	ME2520 Elements of Manufacturing Processes (Other than ME)	ME	4	-	-	3
6	ME2521 Automotive Engineering (Other than ME)	ME	4	-	-	3
7	EC2531 Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	4	-	-	3
8	EC2532 Fundamentals of Communications (Other than ECE)	ECE	4	-	-	3
9	CT2514 Computer Graphics (Other than IT)	CSE	4	-	-	3
10	CT2507 Object Oriented Programming through Java (other than CSE & IT)	CSE	4	-	-	3
11	CT2515 Systems Software	IT	4	-	-	3
12	IT2502 Web Programming (Other than CSE & IT)	IT	4	-	-	3
13	MA2516 Mathematical Cryptography (Other than CSE)	BS&H	4	-	-	3
14	PH2508 Semiconductor Physics (Other than ECE)	BS&H	4	-	-	3

Open Elective - II

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2530 Geoinformatics (other than CE)	CE	4	-	-	3
2	CE2531 Environmental Sanitation	CE	4	-	-	3
3	EE2523 Modeling & Simulation of Engineering Systems	EEE	4	-	-	3
4	EE2524 Power Systems Engineering (Other than EEE)	EEE	4	-	-	3
5	ME2532 Elements of Mechanical Transmission (Other than ME)	ME	4	-	-	3
6	ME2533 Material Handling Equipment	ME	4	-	-	3
7	EC2543 Automotive Electronics	ECE	4	-	-	3
8	EC2544 Introduction to MEMS (other than ECE)	ECE	4	-	-	3
9	CS2508 Data Science	CSE	4	-	-	3
10	CT2524 Virtual and Augmented Reality (other than IT)	CSE	4	-	-	3
11	IT2505 Open Source Software	IT	4	-	-	3
12	IT2506 Cyber Laws	IT	4	-	-	3
13	MA2517 Quality, Reliability and Operations Research	BS&H	4	-	-	3

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Mechanical Engineering

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Open Elective - III

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2543 Hydrology (Other than CE)	CE	4	-	-	3
2	CE2544 Planning for Sustainable Development	CE	4	-	-	3
3	EE2531 Electrical and Hybrid Vehicles	EEE	4	-	-	3
4	EE2532 Power Plant Instrumentation	EEE	4	-	-	3
5	ME2541 Material Science (Other than ME)	ME	4	-	-	3
6	ME2542 Renewable Energy Sources (Other than ME)	ME	4	-	-	3
7	EC2523 Assistive Technologies (Other than ECE)	ECE	4	-	-	3
8	EC2507 Bio-Medical Engineering (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2512 Node and Angular JS	CSE	4	-	-	3
10	CS2513 Cyber Security	CSE	4	-	-	3
11	CT2529 Scripting Languages (Other than CSE)	IT	4	-	-	3
12	CT2531 Software Project Management (Other than CSE)	IT	4	-	-	3
13	MA2518 Elements of Stochastic Processes	BS&H	4	-	-	3
14	EG2505 Academic Communication	ENGLISH	4	-	-	3

Open Elective - IV

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2562 Disaster Management (Other than CE)	CE	4	-	-	3
2	CE2563 Repair and Retrofitting Techniques	CE	4	-	-	3
3	EE2542 Modern Optimization Techniques	EEE	4	-	-	3
4	EE2543 Electrical Power Utilization (Other than EEE)	EEE	4	-	-	3
5	ME2553 Green Engineering	ME	4	-	-	3
6	ME2554 Non Destructive Evaluation (Other than ME)	ME	4	-	-	3
7	EC2563 Cyber Physical Systems	ECE	4	-	-	3
8	EC2508 Signals and Systems (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2521 Digital Forensics	CSE	4	-	-	3
10	CS2522 Business Intelligence & Decision Support Systems	CSE	4	-	-	3
11	IT2521 Adhoc and Sensor Networks	IT	4	-	-	3
12	CT2537 Information Retrieval Systems (Other than CSE)	IT	4	-	-	3
13	MA2514 Fuzzy Logic (Other than EEE, ME & CSE)	BS&H	4	-	-	3

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Professional Electives

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			per week			
			L	T	P	
		Professional Elective - I	4	-	-	3
	ME2529	i) Non Conventional Sources of Energy				
	ME2530	ii) Mechanical Vibrations				
	ME2531	iii) Mechanics of Composite Materials				
	CT2505	iv) Data Structures				
		Professional Elective - II	4	-	-	3
	ME2543	i) Principles of Finite Element Method				
	ME2544	ii) Robotics				
	ME2545	iii) Automobile Engineering				
	CT2513	iv) Database Management Systems				
		Professional Elective - III	4	-	-	3
	MA2515	i) Optimization Techniques				
	ME2555	ii) Refrigeration and Air Conditioning				
	ME2556	iii) Unconventional Machining Process				
	ME2557	iv) Tribology				
		Professional Elective - IV	4	-	-	3
	ME2558	i) Total Quality Management				
	ME2559	ii) Computational Fluid Dynamics				
	ME2560	iii) Condition Monitoring				
	ME2561	iv) Design of Transmission Elements				
		Professional Elective - V	4	-	-	3
	ME2567	i) Design for Manufacturing and Assembly				
	ME2568	ii) Production Planning and Control				
	ME2569	iii) Power Plant Engineering				
	ME2570	iv) Theory of Elasticity				
		Professional Elective - VI	4	-	-	3
	ME2571	i) Rapid Prototyping				
	ME2572	ii) Gas Dynamics and Jet Propulsion				
	ME2573	iii) Automation in Manufacturing				
	ME2574	iv) Non Destructive Techniques				

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Mechanical Engineering

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II Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC2524	Probability Theory and Stochastic Process	3	1	-	3
2	EC2525	Electronic Devices	4	-	-	3
3	EC2508	Signals and Systems	3	1	-	3
4	BA2501	Engineering Economics and Project Management	3	-	-	2
5	EC2526	Electromagnetic Field Theory	4	-	-	3
6	EE2505	Elements of Electrical Engineering	3	-	-	2
7	EC2527	Electronic Devices Lab	-	-	4	2
8	EE2507	Networks and Electrical Technology Lab	-	-	2	1
Total			20	2	6	19
9	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-

II Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC2528	Transmission Lines and Waveguides	4	-	-	3
2	EC2529	Analog Circuits	4	-	-	3
3	EC2530	Analog Communications	3	-	-	2
4	EC2505	Digital Circuit Design	3	1	-	3
5	CS2501	Fundamentals of Data Structures	3	-	-	2
6		Open Elective-I (see list of Open Electives)	4	-	-	3
7	EC2533	Analog Circuits Lab	-	-	4	2
8	EC2506	Digital Circuit Design Lab	-	-	4	2
Total			21	1	8	20
9	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-
10		Optional Elective - I	-	-	-	3
	CS2502	i) Introduction to Python Programming				
	CT2513	ii) Database Management Systems				
	EC2534	iii) Electronic Switching Systems				
11	EC2535	Optional Elective - II (MOOCs)	-	-	-	2
Student shall opt from the list of MOOCs given by the Department)						

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III Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC2536	Linear Integrated Circuits Applications	3	1	-	3
2	EC2537	Digital Communications	3	-	-	2
3	EC2538	Antennas and Wave Propagation	4	-	-	3
4	EC2539	Principles of VLSI Design	3	-	-	2
5		Professional Elective - I	4	-	-	3
6		Open Elective-II (see list of Open Electives)	4	-	-	3
7	EC2545	Linear Integrated Circuits Applications Lab	-	-	4	2
8	EC2546	Analog and Digital Communications Lab	-	-	4	2
Total			21	1	8	20
9		Optional Elective - III	-	-	-	3
	CT2528	i) Data Warehousing and Data Mining				
	ME2549	ii) Mechatronics				
	EC2544	iii) Introduction to MEMS				
10	EC2547	Optional Elective - IV (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

III Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC2511	Digital Signal Processing	4	-	-	3
2	EE2512	Control Systems	3	1	-	3
3	EC2510	Microprocessors, Microcontrollers and Applications**	3	-	1	3
4	EC2548	Microwave and Optical Communications	3	-	-	2
5		Professional Elective - II	4	-	-	3
6		Open Elective-III (see list of Open Electives)	4	-	-	3
7	EC2515	Microprocessor and Microcontroller Interfacing Lab	-	-	4	2
8	EC2552	Digital Signal Processing Lab	-	-	4	2
9	EC2553	VLSI Lab	-	-	4	2
Total			21	1	13	23
10		Optional Elective - V	-	-	-	3
	CT2534	i) Big Data Analytics				
	EC2554	ii) Cognitive Radio Networks				
	CT2533	iii) Cryptography and Network Security				
10	EC2555	Optional Elective - VI (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

* Project Based Theory Course

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IV Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC2517	CMOS Digital IC Design	4	-	-	3
2	EC2512	Embedded System Design	3	-	-	2
3	EC2556	Electronic Measurements and Instrumentation	3	-	-	2
4		Professional Elective - III	4	-	-	3
5		Professional Elective - IV	4	-	-	3
6		Open Elective-IV(see list of Open Electives)	4	-	-	3
7	EC2564	Microwave and Optical Communications Lab	-	-	4	2
8	EC2565	Mini Project on Smart Applications	-	-	4	2
9	EC2566	Internship / Industrial Training / Practical Training	-	-	-	2
Total			22	-	8	22
9		Optional Elective - VII	-	-	-	3
	EE2554	i) Digital Control Systems				
	CT2521	ii) Artificial Intelligence				
	EC2567	iii) Transform Techniques				
10	EC2568	Optional Elective - VIII (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

IV Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	4	-	-	3
2		Professional Elective - VI	4	-	-	3
3	EC2577	Project	-	-	20	10
Total			8	-	20	16

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Open Elective - I

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2515 Elements of Civil Engineering (Other than CE)	CE	4	-	-	3
2	CE2516 Building Services	CE	4	-	-	3
3	EE2515 Electrical Materials	EEE	4	-	-	3
4	EE2516 Control Systems Engineering (Other than EEE & ECE)	EEE	4	-	-	3
5	ME2520 Elements of Manufacturing Processes (Other than ME)	ME	4	-	-	3
6	ME2521 Automotive Engineering (Other than ME)	ME	4	-	-	3
7	EC2531 Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	4	-	-	3
8	EC2532 Fundamentals of Communications (Other than ECE)	ECE	4	-	-	3
9	CT2514 Computer Graphics (Other than IT)	CSE	4	-	-	3
10	CT2507 Object Oriented Programming through Java (other than CSE & IT)	CSE	4	-	-	3
11	CT2515 Systems Software	IT	4	-	-	3
12	IT2502 Web Programming (Other than CSE & IT)	IT	4	-	-	3
13	MA2516 Mathematical Cryptography (Other than CSE)	BS&H	4	-	-	3
14	PH2508 Semiconductor Physics (Other than ECE)	BS&H	4	-	-	3

Open Elective - II


Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2530 Geoinformatics (other than CE)	CE	4	-	-	3
2	CE2531 Environmental Sanitation	CE	4	-	-	3
3	EE2523 Modeling & Simulation of Engineering Systems	EEE	4	-	-	3
4	EE2524 Power Systems Engineering (Other than EEE)	EEE	4	-	-	3
5	ME2532 Elements of Mechanical Transmission (Other than ME)	ME	4	-	-	3
6	ME2533 Material Handling Equipment	ME	4	-	-	3
7	EC2543 Automotive Electronics	ECE	4	-	-	3
8	EC2544 Introduction to MEMS (other than ECE)	ECE	4	-	-	3
9	CS2508 Data Science	CSE	4	-	-	3
10	CT2524 Virtual and Augmented Reality (other than IT)	CSE	4	-	-	3
11	IT2505 Open Source Software	IT	4	-	-	3
12	IT2506 Cyber Laws	IT	4	-	-	3
13	MA2517 Quality, Reliability and Operations Research	BS&H	4	-	-	3

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Electronics and Communication Engineering

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Open Elective - III

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2543 Hydrology (Other than CE)	CE	4	-	-	3
2	CE2544 Planning for Sustainable Development	CE	4	-	-	3
3	EE2531 Electrical and Hybrid Vehicles	EEE	4	-	-	3
4	EE2532 Power Plant Instrumentation	EEE	4	-	-	3
5	ME2541 Material Science (Other than ME)	ME	4	-	-	3
6	ME2542 Renewable Energy Sources (Other than ME)	ME	4	-	-	3
7	EC2523 Assistive Technologies (Other than ECE)	ECE	4	-	-	3
8	EC2507 Bio-Medical Engineering (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2512 Node and Angular JS	CSE	4	-	-	3
10	CS2513 Cyber Security	CSE	4	-	-	3
11	CT2529 Scripting Languages (Other than CSE)	IT	4	-	-	3
12	CT2531 Software Project Management (Other than CSE)	IT	4	-	-	3
13	MA2518 Elements of Stochastic Processes	BS&H	4	-	-	3
14	EG2505 Academic Communication	ENGLISH	4	-	-	3

Open Elective - IV

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2562 Disaster Management (Other than CE)	CE	4	-	-	3
2	CE2563 Repair and Retrofitting Techniques	CE	4	-	-	3
3	EE2542 Modern Optimization Techniques	EEE	4	-	-	3
4	EE2543 Electrical Power Utilization (Other than EEE)	EEE	4	-	-	3
5	ME2553 Green Engineering	ME	4	-	-	3
6	ME2554 Non Destructive Evaluation (Other than ME)	ME	4	-	-	3
7	EC2563 Cyber Physical Systems	ECE	4	-	-	3
8	EC2508 Signals and Systems (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2521 Digital Forensics	CSE	4	-	-	3
10	CS2522 Business Intelligence & Decision Support Systems	CSE	4	-	-	3
11	IT2521 Adhoc and Sensor Networks	IT	4	-	-	3
12	CT2537 Information Retrieval Systems (Other than CSE)	IT	4	-	-	3
13	MA2514 Fuzzy Logic (Other than EEE, ME & CSE)	BS&H	4	-	-	3

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Professional Electives

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			L	T	P	
		Professional Elective - I	4	-	-	3
	EC2540	i) CAD for VLSI				
	EC2541	ii) Computer Organization				
	EC2542	iii) Computer and Communication Networks				
	EC2507	iv) Biomedical Engineering				
		Professional Elective - II	4	-	-	3
	EC2549	i) Analog IC Design				
	EC2516	ii) Nano Electronics				
	EC2550	iii) Smart Antennas				
	EC2551	iv) Coding Theory				
		Professional Elective - III	4	-	-	3
	EC2557	i) Mixed Signal IC Design				
	EC2558	ii) Cellular and Mobile Communications				
	EC2559	iii) Digital TV Engineering				
	EC2514	iv) DSP Processors and Architectures				
		Professional Elective - IV	4	-	-	3
	EC2560	i) System on Chip Design				
	EC2561	ii) Wireless Sensor Networks				
	EC2562	iii) Satellite Communication				
	EC2518	iv) Digital Image Processing				
		Professional Elective - V	4	-	-	3
	EC2569	i) Low Power VLSI Circuits				
	EC2570	ii) Real Time Operating Systems				
	EC2571	iii) Speech Processing				
	EC2572	iv) Adaptive Signal Processing				
		Professional Elective - VI	4	-	-	3
	EC2573	i) ASIC Design				
	EC2574	ii) Embedded C				
	EC2575	iii) RADAR Engineering				
	EC2576	iv) Multi Rate Signal Processing				

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Electronics and Communication Engineering

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II Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	BA2502	Managerial Economics and Financial Analysis	3	-	-	2
2	MA2508	Discrete Mathematical Structures	3	1	-	3
3	CT2505	Data Structures	3	1	-	3
4	CT2506	Digital Logic Design	3	1	-	3
5	CT2507	Object Oriented Programming through Java	4	-	-	3
6	CT2508	Data Structures Lab	-	-	4	2
7	CT2509	Object Oriented Programming Lab	-	-	4	2
8	CS2503	UNIX Programming Lab	-	-	4	2
Total			16	3	12	20
9	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-

II Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA2510	Probability and Statistics	3	1	-	3
2	CT2510	Operating Systems	3	1	-	3
3	CT2511	Formal Languages and Automata Theory	3	1	-	3
4	CT2512	Computer Organization and Architecture	3	1	-	3
5	CT2513	Database Management Systems	3	1	-	3
6		Open Elective-I (see list of Open Electives)	4	-	-	3
7	CS2504	Operating Systems Lab	-	-	4	2
8	CT2516	Database Management Systems Lab	-	-	4	2
Total			19	5	8	22
9	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-
10		Optional Elective - I i) Environmental Impact Assessment EC2508 ii) Signals and Systems MA2514 iii) Fuzzy Logic	-	-	-	3
11	CS2505	Optional Elective - II (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

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III Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CT2517	Software Engineering	3	1	-	3
2	CT2518	Compiler Design	3	1	-	3
3	CT2519	Computer Networks	3	1	-	3
4	CT2520	Web Technologies	4	-	-	3
5		Professional Elective - I	4	-	-	3
6		Open Elective-II (see list of Open Electives)	4	-	-	3
7	CS2509	Computer Networks and Compiler Design Lab	-	-	4	2
8	CT2525	Web Technologies Lab	-	-	4	2
Total			21	3	8	22
9		Optional Elective - III	-	-	-	3
	CT2526	i) Human Computer Interaction				
	EC2511	ii) Digital Signal Processing				
	EE2512	iii) Control Systems				
10	CS2510	Optional Elective - IV (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

III Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CT2527	Design and Analysis of Algorithms	3	1	-	3
2	CT2528	Data Warehousing and Data Mining	4	-	-	3
3	CS2511	UML and Design Patterns *	3	-	2	3
5		Professional Elective - II (OR) Any other Elective Depending on Industry Needs	4	-	-	3
6		Open Elective-III (see list of Open Electives)	4	-	-	3
7	CS2514	Data Mining Lab	-	-	4	2
8	CS2515	Mini Project	-	-	4	2
Total			18	1	10	19
9		Optional Elective - V	-	-	-	3
	CS2516	i) Graph Theory				
	EC2512	ii) Embedded System Design				
	EE2554	iii) Digital Control Systems				
10	CS2517	Optional Elective - VI (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

* Integrated Course with Theory and Laboratory

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IV Year - I Semester


Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CT2533	Cyptography and Network Security	4	-	-	3
2	CT2534	Big Data Analytics	4	-	-	3
3		Professional Elective - III	4	-	-	3
4		Professional Elective - IV	4	-	-	3
5		Open Elective-IV(see list of Open Electives)	4	-	-	3
6	CT2538	Big Data Analytics Lab	-	-	4	2
7	CS2523	Cryptography and Network Security Lab	-	-	4	2
8	CS2524	Internship / Industrial Training / Practical Training	-	-	-	2
Total			20	-	8	21
9		Optional Elective - VII	-	-	-	3
	CS2525	i) Network Programming				
	CT2515	i) Systems Software				
	ME2544	iii) Robotics				
10	CS2526	Optional Elective - VIII (MOOCs)	-	-	-	2
Students shall opt from the list of MOOCs given by the Department)						

IV Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	4	-	-	3
2		Professional Elective - VI	4	-	-	3
3	CS2531	Project	-	-	20	10
Total			8	-	20	16

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Open Elective - I

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2515 Elements of Civil Engineering (Other than CE)	CE	4	-	-	3
2	CE2516 Building Services	CE	4	-	-	3
3	EE2515 Electrical Materials	EEE	4	-	-	3
4	EE2516 Control Systems Engineering (Other than EEE & ECE)	EEE	4	-	-	3
5	ME2520 Elements of Manufacturing Processes (Other than ME)	ME	4	-	-	3
6	ME2521 Automotive Engineering (Other than ME)	ME	4	-	-	3
7	EC2531 Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	4	-	-	3
8	EC2532 Fundamentals of Communications (Other than ECE)	ECE	4	-	-	3
9	CT2514 Computer Graphics (Other than IT)	CSE	4	-	-	3
10	CT2507 Object Oriented Programming through Java (other than CSE & IT)	CSE	4	-	-	3
11	CT2515 Systems Software	IT	4	-	-	3
12	IT2502 Web Programming (Other than CSE & IT)	IT	4	-	-	3
13	MA2516 Mathematical Cryptography (Other than CSE)	BS&H	4	-	-	3
14	PH2508 Semiconductor Physics (Other than ECE)	BS&H	4	-	-	3

Open Elective - II

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2530 Geoinformatics (other than CE)	CE	4	-	-	3
2	CE2531 Environmental Sanitation	CE	4	-	-	3
3	EE2523 Modeling & Simulation of Engineering Systems	EEE	4	-	-	3
4	EE2524 Power Systems Engineering (Other than EEE)	EEE	4	-	-	3
5	ME2532 Elements of Mechanical Transmission (Other than ME)	ME	4	-	-	3
6	ME2533 Material Handling Equipment	ME	4	-	-	3
7	EC2543 Automotive Electronics	ECE	4	-	-	3
8	EC2544 Introduction to MEMS (other than ECE)	ECE	4	-	-	3
9	CS2508 Data Science	CSE	4	-	-	3
10	CT2524 Virtual and Augmented Reality (other than IT)	CSE	4	-	-	3
11	IT2505 Open Source Software	IT	4	-	-	3
12	IT2506 Cyber Laws	IT	4	-	-	3
13	MA2517 Quality, Reliability and Operations Research	BS&H	4	-	-	3

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Computer Science and Engineering

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Open Elective - III

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2543 Hydrology (Other than CE)	CE	4	-	-	3
2	CE2544 Planning for Sustainable Development	CE	4	-	-	3
3	EE2531 Electrical and Hybrid Vehicles	EEE	4	-	-	3
4	EE2532 Power Plant Instrumentation	EEE	4	-	-	3
5	ME2541 Material Science (Other than ME)	ME	4	-	-	3
6	ME2542 Renewable Energy Sources (Other than ME)	ME	4	-	-	3
7	EC2523 Assistive Technologies (Other than ECE)	ECE	4	-	-	3
8	EC2507 Bio-Medical Engineering (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2512 Node and Angular JS	CSE	4	-	-	3
10	CS2513 Cyber Security	CSE	4	-	-	3
11	CT2529 Scripting Languages (Other than CSE)	IT	4	-	-	3
12	CT2531 Software Project Management (Other than CSE)	IT	4	-	-	3
13	MA2518 Elements of Stochastic Processes	BS&H	4	-	-	3
14	EG2505 Academic Communication	ENGLISH	4	-	-	3

Open Elective - IV

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2562 Disaster Management (Other than CE)	CE	4	-	-	3
2	CE2563 Repair and Retrofitting Techniques	CE	4	-	-	3
3	EE2542 Modern Optimization Techniques	EEE	4	-	-	3
4	EE2543 Electrical Power Utilization (Other than EEE)	EEE	4	-	-	3
5	ME2553 Green Engineering	ME	4	-	-	3
6	ME2554 Non Destructive Evaluation (Other than ME)	ME	4	-	-	3
7	EC2563 Cyber Physical Systems	ECE	4	-	-	3
8	EC2508 Signals and Systems (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2521 Digital Forensics	CSE	4	-	-	3
10	CS2522 Business Intelligence & Decision Support Systems	CSE	4	-	-	3
11	IT2521 Adhoc and Sensor Networks	IT	4	-	-	3
12	CT2537 Information Retrieval Systems (Other than CSE)	IT	4	-	-	3
13	MA2514 Fuzzy Logic (Other than EEE, ME & CSE)	BS&H	4	-	-	3

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Professional Electives

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			per week			
			L	T	P	
		Professional Elective - I	4	-	-	3
	CS2506	i) C#.NET				
	CT2522	ii) Advanced Data Structures				
	CT2523	iii) Software Testing Methodologies				
	CS2507	iv) Principles of Programming Languages				
		Professional Elective - II	4	-	-	3
	CT2521	i) Artificial Intelligence				
	CT2529	ii) Scripting Languages				
	EC2520	iii) Microprocessors and Interfacing				
	CT2531	iv) Software Project Management				
		Professional Elective - III	4	-	-	3
	CS2518	i) Machine Learning				
	CT2535	ii) Internet of Things				
	CS2519	iii) NoSQL Databases				
	CS2520	iv) Software Requirements Engineering and Estimation				
		Professional Elective - IV	4	-	-	3
	CT2536	i) Mobile Computing				
	CT2530	ii) Image Processing				
	CT2537	iii) Information Retrieval Systems				
	MA2515	iv) Optimization Techniques				
		Professional Elective - V	4	-	-	3
	CS2527	i) Web Mining				
	CT2540	ii) Cloud Computing				
	CT2532	iii) Agile Software Development Process				
	CT2541	iv) Blockchain Technologies				
		Professional Elective - VI	4	-	-	3
	CS2528	i) Distributed Systems				
	CT2539	ii) Social Networks				
	CS2529	iii) Web Services				
	CS2530	iv) Deep Learning				

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II Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA2508	Discrete Mathematical Structures	3	1	-	3
2	CT2505	Data Structures	3	1	-	3
3	CT2506	Digital Logic Design	3	1	-	3
4	CT2507	Object Oriented Programming through Java	4	-	-	3
5	IT2501	UNIX and Shell Programming *	4	-	2	4
6	CT2508	Data Structures Lab	-	-	4	2
7	CT2509	Object Oriented Programming Lab	-	-	4	2
Total			17	3	10	20
8	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-

II Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA2510	Probability and Statistics	3	1	-	3
2	EC2521	Microprocessors and Microcontrollers *	4	-	2	4
3	CT2511	Formal Languages and Automata Theory	3	1	-	3
4	CT2512	Computer Organization and Architecture	3	1	-	3
5	CT2513	Database Management Systems	3	1	-	3
6		Open Elective-I (see list of Open Electives)	4	-	-	3
7	CT2516	Database Management Systems Lab	-	-	4	2
Total			20	4	6	21
8	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-
9		Optional Elective - I	-	-	-	3
	IT2503	i) Information and Communication Technology				
	EC2508	ii) Signals and Systems				
	EE2506	iii) Basic Electrical Engineering				
10	IT2504	Optional Elective - II (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

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III Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CT2517	Software Engineering	3	1	-	3
2	CT2518	Compiler Design	3	1	-	3
3	CT2510	Operating Systems	3	1	-	3
4	CT2520	Web Technologies	4	-	-	3
5		Professional Elective - I	4	-	-	3
6		Open Elective-II (see list of Open Electives)	4	-	-	3
7	IT2507	Operating Systems and Compiler Design Lab	-	-	4	2
8	CT2525	Web Technologies Lab	-	-	4	2
Total			21	3	8	22
9		Optional Elective - III	-	-	-	3
	IT2508	i) Object Oriented Programming through C++				
	EC2522	ii) Data Communication				
	CE2549	iii) Building Information Modelling				
10	IT2509	Optional Elective - IV (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

III Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CT2527	Design and Analysis of Algorithms	3	1	-	3
2	CT2528	Data Warehousing and Data Mining	4	-	-	3
3	IT2510	Object Oriented Analysis and Design *	4	-	2	4
4	CT2519	Computer Networks	3	1	-	3
5		Professional Elective - II	4	-	-	3
6		Open Elective-III(see list of Open Electives)	4	-	-	3
7	IT2513	Computer Networks and Data Mining Lab	-	-	4	2
Total			22	2	6	21
8		Optional Elective - V	-	-	-	3
	IT2514	i) Secure Web Technologies				
	IT2515	ii) Management Information Systems				
	ME2544	iii) Robotics				
9	IT2516	Optional Elective - VI (MOOCs) Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

* Integrated Course with Theory and Laboratory

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IV Year - I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	BA2502	Managerial Economics and Financial Analysis	3	-	-	2
2	CT2534	Big Data Analytics	4	-	-	3
3		Professional Elective - III	4	-	-	3
4		Professional Elective - IV	4	-	-	3
5		Open Elective-IV(see list of Open Electives)	4	-	-	3
6	CT2538	Big Data Analytics Lab	-	-	4	2
7	IT2522	Mini Project	-	-	4	2
8	IT2523	Internship / Industrial Training / Practical Training	-	-	-	2
Total			19	-	8	20
9		Optional Elective - VII	-	-	-	3
	CT2539	i) Social Networks				
	EC2523	ii) Assistive Technologies				
	ME2542	iii) Renewable Energy Sources				
10	IT2524	Optional Elective - VIII (MOOCs)	-	-	-	2
Students shall opt from the list of MOOCs given by the Department)						

IV Year - II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	4	-	-	3
2		Professional Elective - VI	4	-	-	3
3	IT2529	Project	-	-	20	10
Total			8	-	20	16

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Information Technology

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Open Elective - I

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2515 Elements of Civil Engineering (Other than CE)	CE	4	-	-	3
2	CE2516 Building Services	CE	4	-	-	3
3	EE2515 Electrical Materials	EEE	4	-	-	3
4	EE2516 Control Systems Engineering (Other than EEE & ECE)	EEE	4	-	-	3
5	ME2520 Elements of Manufacturing Processes (Other than ME)	ME	4	-	-	3
6	ME2521 Automotive Engineering (Other than ME)	ME	4	-	-	3
7	EC2531 Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	4	-	-	3
8	EC2532 Fundamentals of Communications (Other than ECE)	ECE	4	-	-	3
9	CT2514 Computer Graphics (Other than IT)	CSE	4	-	-	3
10	CT2507 Object Oriented Programming through Java (other than CSE & IT)	CSE	4	-	-	3
11	CT2515 Systems Software	IT	4	-	-	3
12	IT2502 Web Programming (Other than CSE & IT)	IT	4	-	-	3
13	MA2516 Mathematical Cryptography (Other than CSE)	BS&H	4	-	-	3
14	PH2508 Semiconductor Physics (Other than ECE)	BS&H	4	-	-	3

Open Elective - II

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2530 Geoinformatics (other than CE)	CE	4	-	-	3
2	CE2531 Environmental Sanitation	CE	4	-	-	3
3	EE2523 Modeling & Simulation of Engineering Systems	EEE	4	-	-	3
4	EE2524 Power Systems Engineering (Other than EEE)	EEE	4	-	-	3
5	ME2532 Elements of Mechanical Transmission (Other than ME)	ME	4	-	-	3
6	ME2533 Material Handling Equipment	ME	4	-	-	3
7	EC2543 Automotive Electronics	ECE	4	-	-	3
8	EC2544 Introduction to MEMS (other than ECE)	ECE	4	-	-	3
9	CS2508 Data Science	CSE	4	-	-	3
10	CT2524 Virtual and Augmented Reality (other than IT)	CSE	4	-	-	3
11	IT2505 Open Source Software	IT	4	-	-	3
12	IT2506 Cyber Laws	IT	4	-	-	3
13	MA2517 Quality, Reliability and Operations Research	BS&H	4	-	-	3

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Open Elective - III

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2543 Hydrology (Other than CE)	CE	4	-	-	3
2	CE2544 Planning for Sustainable Development	CE	4	-	-	3
3	EE2531 Electrical and Hybrid Vehicles	EEE	4	-	-	3
4	EE2532 Power Plant Instrumentation	EEE	4	-	-	3
5	ME2541 Material Science (Other than ME)	ME	4	-	-	3
6	ME2542 Renewable Energy Sources (Other than ME)	ME	4	-	-	3
7	EC2523 Assistive Technologies (Other than ECE)	ECE	4	-	-	3
8	EC2507 Bio-Medical Engineering (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2512 Node and Angular JS	CSE	4	-	-	3
10	CS2513 Cyber Security	CSE	4	-	-	3
11	CT2529 Scripting Languages (Other than CSE)	IT	4	-	-	3
12	CT2531 Software Project Management (Other than CSE)	IT	4	-	-	3
13	MA2518 Elements of Stochastic Processes	BS&H	4	-	-	3
14	EG2505 Academic Communication	ENGLISH	4	-	-	3

Open Elective - IV

Sl. No.	Title of the Subject	Department Offering the Subject	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2562 Disaster Management (Other than CE)	CE	4	-	-	3
2	CE2563 Repair and Retrofitting Techniques	CE	4	-	-	3
3	EE2542 Modern Optimization Techniques	EEE	4	-	-	3
4	EE2543 Electrical Power Utilization (Other than EEE)	EEE	4	-	-	3
5	ME2553 Green Engineering	ME	4	-	-	3
6	ME2554 Non Destructive Evaluation (Other than ME)	ME	4	-	-	3
7	EC2563 Cyber Physical Systems	ECE	4	-	-	3
8	EC2508 Signals and Systems (Other than EEE & ECE)	ECE	4	-	-	3
9	CS2521 Digital Forensics	CSE	4	-	-	3
10	CS2522 Business Intelligence & Decision Support Systems	CSE	4	-	-	3
11	IT2521 Adhoc and Sensor Networks	IT	4	-	-	3
12	CT2537 Information Retrieval Systems (Other than CSE)	IT	4	-	-	3
13	MA2514 Fuzzy Logic (Other than EEE, ME & CSE)	BS&H	4	-	-	3

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Professional Electives

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			per week			
			L	T	P	
		Professional Elective - I	4	-	-	3
	CT2521	i) Artificial Intelligence				
	EC2512	ii) Embedded System Design				
	CT2514	iii) Computer Graphics				
	CT2522	iv) Advanced Data Structures				
		Professional Elective - II	4	-	-	3
	IT2511	i) Soft Computing Techniques				
	IT2512	ii) Real Time Systems				
	CT2530	iii) Image Processing				
	CT2532	iv) Agile Software Development Process				
		Professional Elective - III	4	-	-	3
	IT2517	i) Machine Learning and Pattern Recognition				
	IT2518	ii) Distributed Operating Systems				
	CT2526	iii) Human Computer Interaction				
	CT2523	iv) Software Testing Methodologies				
		Professional Elective - IV	4	-	-	3
	IT2519	i) Business Intelligence				
	CT2536	ii) Mobile Computing				
	IT2520	iii) Multimedia Tools				
	CT2533	iv) Cryptography and Network Security				
		Professional Elective - V	4	-	-	3
	IT2525	i) Steganography and Biometrics				
	IT2526	ii) Parallel Computing				
	CT2524	iii) Virtual and Augmented Reality				
	IT2527	iv) E-Commerce				
		Professional Elective - VI	4	-	-	3
	CT2535	i) Internet of Things				
	CT2540	ii) Cloud Computing				
	CT2541	iii) Blockchain Technologies				
	IT2528	iv) Design Patterns				

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I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE3901	Advanced Structural Analysis **	3	-	-	3
2	CE3902	Theory of Elasticity	3	-	-	3
3		Professional Elective - I	3	-	-	3
4		Professional Elective - II	3	-	-	3
5	BA3901	Research Methodology & IPR	3	-	-	3
6	CE3908	Advanced Structural Engineering Lab	-	-	4	2
7	CE3909	Advanced Concrete Technology Lab	-	-	4	2
Total			15	-	8	19
8	BA3902	Constitution of India (Audit Course)	2	-	-	

II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE3910	Finite Element Methods in Structural Engineering **	3	-	-	3
2	CE3911	Structural Dynamics	3	-	-	3
3		Professional Elective - III	3	-	-	3
4		Professional Elective - IV	3	-	-	3
5	CE3918	Computer Applications in Structural Engineering Lab	-	-	4	2
6	CE3919	Structural Design Lab	-	-	4	2
7	CE3920	Mini Project with Seminar	-	-	6	3
Total			12	-	14	19
8	EG3901	English for Research Paper Writing (Audit Course)	2	-	-	-

III Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	3	-	-	3
2		Open Elective	3	-	-	3
3		Dissertation Phase - I	-	-	20	10
Total			6	-	20	16

** Project Based Course

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IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Dissertation Phase - II	-	-	32	16
Total			-	-	32	16

Professional Electives:

Professional Elective - I

- MA3901 Computational Methods in Structural Engineering
- CE3903 Advanced R.C. Design
- CE3904 Experimental Stress Analysis

Professional Elective - II

- CE3905 Theory of Plates and Shells
- CE3906 Advancements in Concrete Technology
- CE3907 Design of Pre-stressed Concrete Structures

Professional Elective - III

- CE3912 Advanced Design of Steel Structures
- CE3913 Stability of Structures
- CE3914 Design of High-rise Structures

Professional Elective - IV

- CE3915 Design of Bridge Structures
- CE3916 Repairs and Retrofitting of Structures
- CE3917 Ground Improvement Methods

Professional Elective - V

- CE3921 Earthquake Resistant Design of Structures
- CE3922 Design of Sub-structures
- CE3923 MOOCs

Open Electives:

- CE3924 Sustainable Development
- EE3924 Energy Audit, Conservation & Management
- ME3924 Rapid Prototyping
- EC4924 Automotive Electronics (Other than VLSID&ES)
- CS3924 Soft Computing Techniques

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I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE3901	Electrical Machine Modeling and Analysis	3	-	-	3
2	EE3902	Analysis of Power Electronic Converters**	3	-	-	3
3		Professional Elective - I	3	-	-	3
4		Professional Elective - II	3	-	-	3
5		Research Methodology & IPR	3	-	-	3
6	EE3909	Power Electronics Simulation Laboratory	-	-	4	2
7	EE3910	Power Converters Laboratory	-	-	4	2
Total			15	-	8	19
8	BA3902	Constitution of India (Audit Course)	2	-	-	

II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EE3911	Switched Mode Power Conversion	3	-	-	3
2	EE3912	Power Electronic Control of Electrical Drives **	3	-	-	3
3		Professional Elective - III	3	-	-	3
4		Professional Elective - IV	3	-	-	3
5	EE3919	Electric Drives Simulation Laboratory	-	-	4	2
6	EE3920	Electric Drives Laboratory	-	-	4	2
7	EE3921	Mini Project with Seminar	-	-	6	3
Total			12	-	14	19
8	EG3901	English for Research Paper Writing (Audit Course)	2	-	-	-

III Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	3	-	-	3
2		Open Elective	3	-	-	3
3		Dissertation Phase - I	-	-	20	10
Total			6	-	20	16

** Project Based Course

L : Lecture T : Tutorial P : Practical

M.Tech - Power Electronics and Electric Drives (EEE) - R20

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IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Dissertation Phase - II	-	-	32	16
Total			-	-	32	16

Professional Electives:

Professional Elective - I

- EE3903 Modern Control Theory
- EE3904 Power Quality and Custom Power Devices
- EE3905 Programmable Logic Controllers and Applications

Professional Elective - II

- EE3906 Artificial Intelligence Techniques
- EE3907 Renewable Energy Technologies
- EE3908 Flexible AC Transmission Systems

Professional Elective - III

- EE3913 Control and Integration of Renewable Energy Systems
- EE3914 Hybrid Electric Vehicles
- EE3915 Advanced Digital Control Systems

Professional Elective - IV

- EE3916 Advanced Digital Signal Processing
- EE3917 Applications of Power Converters
- EE3918 Microcontrollers

Professional Elective - V

- EE3922 Digital Signal Processing Controlled Drives
- EE3923 Smart Grid Technologies
- EE39.... MOOCs

Open Electives:

- CE3924 Sustainable Development
- EE3924 Energy Audit, Conservation & Management
- ME3924 Rapid Prototyping
- EC4924 Automotive Electronics (Other than VLSI&ES)
- CS3924 Soft Computing Techniques



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I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	ME3901	Mechanical Vibrations and Acoustics **	3	-	-	3
2	ME3902	Advanced mechanics of Solids	3	-	-	3
3		Professional Elective - I	3	-	-	3
4		Professional Elective - II	3	-	-	3
5	BA3901	Research Methodology & IPR	3	-	-	3
6	ME3909	Machine Dynamics Lab	-	-	4	2
7	ME3910	Advanced Material Testing Lab	-	-	4	2
Total			15	-	8	19
8	BA3902	Constitution of India (Audit Course)	2	-	-	

II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA3902	Computational Methods in Engineering	3	-	-	3
2	ME3911	Advanced Finite Element Methods **	3	-	-	3
3		Professional Elective - III	3	-	-	3
4		Professional Elective - IV	3	-	-	3
5	ME3918	Modeling and Simulation Lab	-	-	4	2
6	ME3919	Computational Methods Lab	-	-	4	2
7	ME3920	Mini Project with Seminar	-	-	6	3
Total			12	-	14	19
8	EG3901	English for Research Paper Writing (Audit Course)	2	-	-	-

III Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	3	-	-	3
2		Open Elective	3	-	-	3
3	ME3926	Dissertation Phase - I	-	-	20	10
Total			6	-	20	16

** Project Based Course

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IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	ME3927	Dissertation Phase - II	-	-	32	16
Total			-	-	32	16

Professional Electives:**Professional Elective - I**

- ME3903 Analysis and Synthesis of Mechanisms
- ME3904 Advanced Materials
- ME3905 Industrial Robotics

Professional Elective - II

- ME3906 Gear Engineering
- ME3907 Advanced Optimization Techniques
- ME3908 Rotor Dynamics

Professional Elective - III

- ME3912 Design for Manufacturing and Assembly
- ME3913 Mechatronics
- ME3914 Vehicle Dynamics

Professional Elective - IV

- ME3915 Signal Analysis and Condition Monitoring
- ME3916 Fracture Mechanics
- ME3917 Experimental Stress Analysis

Professional Elective - V

- ME3921 Tribology
- ME3922 Composite Materials
- ME3923 MOOCs

Open Electives:

- CE3924 Sustainable Development
- EE3924 Energy Audit, Conservation & Management
- ME3924 Rapid Prototyping
- EC4924 Automotive Electronics (Other than VLSID&ES)
- CS3924 Soft Computing Techniques




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I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC4901	CMOS VLSI Design	3	-	-	3
2	EC4902	Advanced Microcontrollers *	3	-	-	3
3		Professional Elective - I	3	-	-	3
4		Professional Elective - II	3	-	-	3
5	BA3901	Research Methodology & IPR	3	-	-	3
6	EC4909	CMOS VLSI Design Lab	-	-	4	2
7	EC4910	Advanced Microcontrollers Lab	-	-	4	2
Total			15	-	8	19
8	BA3902	Constitution of India (Audit Course)	2	-	-	

II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC4911	VLSI System Design *	3	-	-	3
2	EC4912	Embedded System Based IoT	3	-	-	3
3		Professional Elective - III	3	-	-	3
4		Professional Elective - IV	3	-	-	3
5	EC4919	VLSI System Design Lab	-	-	4	2
6	EC4920	Embedded System and IoT Lab	-	-	4	2
7	EC4921	Mini Project with Seminar	-	-	6	3
Total			12	-	14	19
8	EG3901	English for Research Paper Writing (Audit Course)	2	-	-	-

III Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Professional Elective - V	3	-	-	3
2		Open Elective	3	-	-	3
3	EC4925	Dissertation Phase - I	-	-	20	10
Total			6	-	20	16

* Project Based Theory Course

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IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	EC4925	Dissertation Phase - II	-	-	32	16
Total			-	-	32	16

Professional Electives:

Professional Elective - I

- EC4903 Testing and Testability of VLSI Circuits
- EC4904 Advanced Digital Design
- EC4905 Digital Signal and Image Processing

Professional Elective - II

- EC4906 VLSI Signal Processing
- EC4907 System Design with Embedded Linux
- EC4908 Parallel Processing

Professional Elective - III

- EC4913 Advances in VLSI Design
- EC4914 Embedded Computer Architecture
- EC4915 System on Chip Design

Professional Elective - IV

- EC4916 VLSI Interconnects
- EC4917 Communication Buses and Interfaces
- EC4918 Advanced Digital Signal Processing

Professional Elective - V

- EC4922 Lower Power VLSI Design
- EC4923 Network Security and Cryptography
- ME49... MOOCs

Open Electives:

- CE3924 Sustainable Development
- EE3924 Energy Audit, Conservation & Management
- ME3924 Rapid Prototyping
- EC4924 Automotive Electronics (Other than VLSI&ES)
- CS3924 Soft Computing Techniques



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Department of Computer Science and Engineering

R20 PG – M.Tech CSE (AI&ML)

Course Structure

I Semester

Sl. No.	Course Code	Name of the Course / Laboratory		No. of hours per week			Total Credits
				L	T	P	
1		Research Methodologies and IPR	HSS	3	-	-	3
2	CS3901	Advanced Data Structures and Algorithm Analysis	PC	3	-	-	3
3	CS3902	Data Science	ES	3	-	-	3
4	CS3903 CS3904 CS3905	Professional Elective – I	PE	3	-	-	3
		1. Digital Image Processing					
		2. Ad hoc and Sensor Networks					
5	CS3906 CS3907 CS3908	Professional Elective – II	PE	3	-	-	3
		1. Internet of Things					
		2. Principles of Computer Security					
6	CS3909	Advanced Data Structures and Algorithm Analysis Lab	PC	-	-	4	2
7	CS3910	Data Science Lab	ES	-	-	4	2
8		Constitution of India	AC	2	-	-	-
Total :				17	-	8	19

II Semester

Sl. No.	Course code	Name of the Course / Laboratory		No. of hours per week			No. of Credits
				L	T	P	
1	CS3911	MEAN Stack Technologies	PC	3	-	-	3
2	CS3912	Machine Learning	PC	3	-	-	3
3	CS3913 CS3914 CS3915	Professional Elective – III	PE	3	-	-	3
		1. Blockchain Technology					
		2. Data Preparation and Analysis					
4	CS3916 CS3917 CS3918	Professional Elective – IV	PE	3	-	-	3
		1. Cloud Computing					
		2. Quantum Computing					
5	CS3919	MEAN Stack Technologies Lab	PC	-	-	4	2
6	CS3920	Machine Learning using Python Lab	PC	-	-	4	2
7	CS3921	Mini Project with Seminar	PROJ	-	-	6	3
8		English for Research Paper Writing	AC	2	-	-	-
Total:				14	-	14	19


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III Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of hours per week			No. of Credits	
			L	T	P		
1	CS3922 CS3923	Professional Elective – V 1. Deep Learning 2. Recommender Systems 3. MOOCs-1 (NPTEL/SWAYAM) 12 Week Program related to the program which is not listed in the course structure	PE	3	-	-	3
2		Open Elective- I 1. Courses Offered by Other Departments 2. MOOCs-2 (NPTEL/SWAYAM)-Any 12 Week Course on Engineering/ Management/ Mathematics offered by other than parent department	OE	3	-	-	3
3	CS3925	Dissertation (Initiated in third Semester)	PROJ	-	-	20	10
Total :				6	-	20	16

IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of hours per week			No. of Credits	
			L	T	P		
1	CS3926	Dissertation (Carried out in third & fourth Semesters)	PROJ	-	-	32	16
Total :				-	-	32	16

Open Elective-I	CS3924	Soft Computing Techniques
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COURSE STRUCTURE

I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	BA3902	Perspectives of Management	4	-	-	4
2	BA3903	Managerial Economics	4	-	-	4
3	BA3904	Accounting for Managers	3	-	1	4
4	BA3905	Business Communication & Skill Development	4	-	-	4
5	BA3906	Business Environment and Legislation	4	-	-	4
6	BA3907	Quantitative Analysis for Business Decisions	3	-	1	4
7	BA3908	Business Law	4	-	-	4
8	BA3909	Information Technology Lab for Business Management	-	-	4	2
Total			26	-	6	30

II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	BA3910	Financial Management	3	-	1	4
2	BA3911	Marketing Management	4	-	-	4
3	BA3912	Human Resource Management	4	-	-	4
4	BA3913	Production & Operations Management	4	-	-	4
5	BA3914	Business Research Methods	3	-	1	4
6	BA3915	International Business	4	-	-	4
7	BA3916	Organizational Behaviour	4	-	-	4
Total			26	-	-	28

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III Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits	
			L	T	P		
1	BA3917	Business Policy & Strategic Management	4	-	-	4	
2	BA3918	Logistics & Supply Chain Management	4	-	-	3	
3	BA3919	Retail Management	4	-	-	3	
4	BA3920	Business Ethics & Corporate Governance	4	-	-	3	
5		Specialisation - I	Marketing subjects common to all	4	-	-	3
6		Specialisation - II		4	-	-	3
7		Specialisation - III	Finance (or) HR	4	-	-	3
8		Specialisation - IV		4	-	-	3
Total			32	-	-	25	

IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits	
			L	T	P		
1	BA3927	Entrepreneurship & Project Management	4	-	-	4	
2	BA3928	Management of Retail Operations	4	-	-	3	
3		Specialisation - V	Marketing subjects common to all	4	-	-	3
4		Specialisation - VI		4	-	-	3
5		Specialisation - VII	Finance (or) HR	4	-	-	3
6		Specialisation - VIII		4	-	-	3
7		Project Report	-	-	-	5	
8		Comprehensive Viva-Voce	-	-	-	1	
Total			20	0	0	25	

Specialisations:

III Semester	IV Semester
Marketing BA3921 Advertising & Brand Management BA3922 Consumer Behaviour Finance BA3923 Security Analysis & Portfolio Mgt. BA3924 International Financial Management HR BA3925 Human Resources Analytics BA3926 Industrial Relations and Labour Laws	Marketing BA3929 Marketing of Services BA3930 Sales & Distribution Management Finance BA3931 Financial Derivatives BA3932 Financial Institutions and Services HR BA3933 Compensation Management BA3934 Management of Change and Development


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