



# 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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**Dr. G. V. S. N. R. V. PRASAD**

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

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

**Principal**

1.2.1: *List of new courses introduced of the total number of courses across all programs offered during the academic year 2019 - 2020.*

S. No	Name of the Course	Course Code	Programme Name
1.	Computer aided drafting lab	CE2502	B. Tech-CE
2.	Linear Algebra and Differential Equations	MA2501	B. Tech-CE
3.	Integral Transforms and Multiple integrals	MA2503	B. Tech-CE
4.	Engineering Physics	PH2501	B. Tech-CE
5.	Engineering Physics Lab	PH2503	B. Tech-CE
6.	Engineering Chemistry	CH2501	B. Tech-CE
7.	Engineering Chemistry Lab	CH2502	B. Tech-CE
8.	Engineer and Society	EN2502	B. Tech-CE
9.	Mechanics of Solids	CE2504	B. Tech-CE
10.	Mechanics of Fluids	CE2505	B. Tech-CE
11.	Mechanics of Solids Lab	CE2509	B. Tech-CE
12.	Structural Analysis	CE2511	B. Tech-CE
13.	Engineering Geology and Geomatics	CE2514	B. Tech-CE
14.	Interior Design	CE2519	B. Tech-CE
15.	Building Bye Laws and Scientific Planning	CE2520	B. Tech-CE
16.	Theory of Structures	CE2522	B. Tech-CE
17.	Geotechnical Engineering	CE2523	B. Tech-CE
18.	Hydrology and Water Resources Engineering	CE2524	B. Tech-CE
19.	Water and Waste Water Engineering	CE2525	B. Tech-CE
20.	Water and Waste Water Engineering Lab	CE2533	B. Tech-CE
21.	Infrastructure Development	CE2534	B. Tech-CE
22.	Foundation Engineering	CE2536	B. Tech-CE
23.	Highway Engineering	CE2537	B. Tech-CE
24.	Highway Engineering Lab	CE2546	B. Tech-CE
25.	Smart Buildings and Automation	CE2548	B. Tech-CE
26.	Building Information Modelling	CE2549	B. Tech-CE

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

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
27.	Building Services	CE2516	B. Tech-CE
28.	Electrical Materials	EE2515	B. Tech-CE
29.	Control Systems Engineering	EE2516	B. Tech-CE
30.	Elements of Manufacturing Processes	ME2520	B. Tech-CE
31.	Automotive Engineering	ME2521	B. Tech-CE
32.	Fundamentals of Communications	EC2532	B. Tech-CE
33.	Computer Graphics	CT2514	B. Tech-CE
34.	Systems Software	CT2515	B. Tech-CE
35.	Web Programming	IT2502	B. Tech-CE
36.	Mathematical Cryptography	MA2516	B. Tech-CE
37.	Semiconductor Physics	PH2508	B. Tech-CE
38.	Geoinformatics	CE2503	B. Tech-CE
39.	Environmental Sanitation	CE2531	B. Tech-CE
40.	Power Systems Engineering	EE2524	B. Tech-CE
41.	Elements of Mechanical Transmission	ME2532	B. Tech-CE
42.	Material Handling Equipment	ME2533	B. Tech-CE
43.	Introduction to MEMS	EC2544	B. Tech-CE
44.	Data Science	CS2508	B. Tech-CE
45.	Virtual and Augmented Reality	CT2524	B. Tech-CE
46.	Quality, Reliability and Operations Research	MA2517	B. Tech-CE
47.	Hydrology	CE2543	B. Tech-CE
48.	Planning for Sustainable Development	CE2544	B. Tech-CE
49.	Electrical and Hybrid Vehicles	EE2531	B. Tech-CE
50.	Material Science	ME2541	B. Tech-CE
51.	Bio-Medical Engineering	EC2507	B. Tech-CE
52.	Node and Angular JS	CS2512	B. Tech-CE
53.	Cyber Security	CS2513	B. Tech-CE
54.	Software Project Management	CT2531	B. Tech-CE
55.	Elements of Stochastic Processes	MA2518	B. Tech-CE
56.	Academic Communication	EG2505	B. Tech-CE
57.	Advanced Strength of Materials	CE2526	B. Tech-CE
58.	GIS and GPS	CE2527	B. Tech-CE
59.	Green Buildings	CE2528	B. Tech-CE
60.	Construction Management	CE2529	B. Tech-CE
61.	Ground Improvement Techniques	CE2542	B. Tech-CE
62.	Elements of Electrical Circuits	EE2507	B. Tech-EEE

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
63.	Elements of Mechanical Engineering	ME2503	B. Tech-EEE
64.	Linear Algebra and Differential Equations	MA2501	B. Tech-EEE
65.	Integral transforms and Vector Calculus	MA2504	B. Tech-EEE
66.	Solid State Physics	PH2504	B. Tech-EEE
67.	Solid State Physics Lab	PH2505	B. Tech-EEE
68.	Applied Chemistry	CH2503	B. Tech-EEE
69.	Engineer and Society	EN2502	B. Tech-EEE
70.	DC Machines and Transformers	EE2508	B. Tech-EEE
71.	Electric Circuit Analysis	EE2509	B. Tech-EEE
72.	Numerical Methods with Computer Applications*	MA2507	B. Tech-EEE
73.	Analog Electronics	EC2503	B. Tech-EEE
74.	Mechanical Engineering Lab	ME2504	B. Tech-EEE
75.	Electric Circuits Lab	EE2511	B. Tech-EEE
76.	Analog Electronics Lab	EC2504	B. Tech-EEE
77.	NSS/Fine Arts/Yoga/Self Defence	NS2501	B. Tech-EEE
78.	Digital Circuit Design	EC2505	B. Tech-EEE
79.	Engineering Economics and Project Management	BA2501	B. Tech-EEE
80.	Induction and Synchronous Machines	EE2513	B. Tech-EEE
81.	Digital Circuit Design Lab	EC2506	B. Tech-EEE
82.	Biomedical Engineering	EC2507	B. Tech-EEE
83.	Computer Organisation and Architecture	CT2512	B. Tech-EEE
84.	Introduction to Quantum Mechanics for Engineers	EE2518	B. Tech-EEE
85.	Optional Elective-II MOOCS	EE2519	B. Tech-EEE
86.	Mechatronics	ME2549	B. Tech-EEE
87.	Control System Design	EE2528	B. Tech-EEE
88.	Probability and Fuzzy Mathematics	MA2511	B. Tech-EEE
89.	Microprocessors, Microcontrollers and Its Applications	EC2510	B. Tech-EEE
90.	Microprocessors, Microcontrollers and Its Applications Lab	EC2515	B. Tech-EEE
91.	Data Base Management Systems	CT2513	B. Tech-EEE
92.	Nano Electronics	EC2516	B. Tech-EEE
93.	Solar and Wind Energy Systems	EE2535	B. Tech-EEE
94.	Optional Elective- IV MOOCS	EE2529	B. Tech-EEE
95.	Optional Elective- VI MOOCS	EE2536	B. Tech-EEE
96.	Elements of Civil Engineering	CE2515	B. Tech-EEE

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
97.	Building Services	CE2516	B. Tech-EEE
98.	Electrical Materials	EE2515	B. Tech-EEE
99.	Control Systems Engineering	EE2516	B. Tech-EEE
100.	Elements of Manufacturing Processes	ME2520	B. Tech-EEE
101.	Automotive Engineering	ME2521	B. Tech-EEE
102.	Fundamentals of Communications	EC2532	B. Tech-EEE
103.	Computer Graphics	CT2514	B. Tech-EEE
104.	Systems Software	CT2515	B. Tech-EEE
105.	Web Programming	IT2502	B. Tech-EEE
106.	Mathematical Cryptography	MA2516	B. Tech-EEE
107.	Semiconductor Physics	PH2508	B. Tech-EEE
108.	Geoinformatics	CE2503	B. Tech-EEE
109.	Environmental Sanitation	CE2531	B. Tech-EEE
110.	Power Systems Engineering	EE2524	B. Tech-EEE
111.	Elements of Mechanical Transmission	ME2532	B. Tech-EEE
112.	Material Handling Equipment	ME2533	B. Tech-EEE
113.	Introduction to MEMS	EC2544	B. Tech-EEE
114.	Data Science	CS2508	B. Tech-EEE
115.	Virtual and Augmented Reality	CT2524	B. Tech-EEE
116.	Quality, Reliability and Operations Research	MA2517	B. Tech-EEE
117.	Hydrology	CE2543	B. Tech-EEE
118.	Planning for Sustainable Development	CE2544	B. Tech-EEE
119.	Electrical and Hybrid Vehicles	EE2531	B. Tech-EEE
120.	Material Science	ME2541	B. Tech-EEE
121.	Bio-Medical Engineering	EC2507	B. Tech-EEE
122.	Node and Angular JS	CS2512	B. Tech-EEE
123.	Cyber Security	CS2513	B. Tech-EEE
124.	Software Project Management	CT2531	B. Tech-EEE
125.	Elements of Stochastic Processes	MA2518	B. Tech-EEE
126.	Academic Communication	EG2505	B. Tech-EEE
127.	Switch Gear and Protection	EE2522	B. Tech-EEE
128.	Computer Networks	CT2519	B. Tech-EEE
129.	Pulse and Integrated Circuits	EC2509	B. Tech-EEE
130.	Data Structures	CT2505	B. Tech-EEE
131.	Digital Signal Processing	EC2511	B. Tech-EEE
132.	Embedded System Design	EC2512	B. Tech-EEE

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
133.	Principles of VLSI Design	EC2513	B. Tech-EEE
134.	DSP Processors and Architecture	EC2514	B. Tech-EEE
135.	Engineering Graphics	ME2505	B. Tech-ME
136.	Linear Algebra and Differential Equations	MA2501	B. Tech-ME
137.	Integral Transforms and Multiple integrals	MA2503	B. Tech-ME
138.	Engineering Physics Lab	PH2503	B. Tech-ME
139.	Physics for Engineers	PH2502	B. Tech-ME
140.	Industrial Chemistry	CH2505	B. Tech-ME
141.	Industrial Chemistry Lab & Engg. Mechanics Lab	ME2508	B. Tech-ME
142.	Engineer and Society	EN2502	B. Tech-ME
143.	Elements of Electrical and Electronics Engineering	EE2501	B. Tech-ME
144.	Solid Mechanics	ME2512	B. Tech-ME
145.	Engineering Metallurgy	ME2513	B. Tech-ME
146.	Electrical and Electronics Engineering Lab	EE2502	B. Tech-ME
147.	Solid Mechanics and Metallurgy Lab	ME2514	B. Tech-ME
148.	Computer Aided Modelling Lab	ME2515	B. Tech-ME
149.	Manufacturing Processes	ME2516	B. Tech-ME
150.	Applied Thermodynamics	ME2517	B. Tech-ME
151.	Thermal Engineering Lab	ME2522	B. Tech-ME
152.	Machine Dynamics Lab	ME2524	B. Tech-ME
153.	Control Systems	EE2512	B. Tech-ME
154.	Nano Technology	ME2525	B. Tech-ME
155.	Digital Logic Design	CT2506	B. Tech-ME
156.	Numerical and Statistical Methods	MA2509	B. Tech-ME
157.	Metal Cutting and Machine Tools	ME2527	B. Tech-ME
158.	Numerical and Statistical Methods	MA2509	B. Tech-ME
159.	Computer Aided Engineering Analysis Lab	ME2548	B. Tech-ME
160.	Computer Aided Machine Drawing Lab	ME2536	B. Tech-ME
161.	Computer Graphics	CT2514	B. Tech-ME
162.	Design of Machine Members	ME2539	B. Tech-ME
163.	Embedded System Design	EC2512	B. Tech-ME
164.	Engineering Economics and Accountancy	BA2503	B. Tech-ME
165.	Fluid Mechanics and Turbo Machinery Lab	ME2534	B. Tech-ME
166.	Fuzzy Logic Systems	EE2503	B. Tech-ME
167.	Heat Transfer	ME2540	B. Tech-ME

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
168.	Heat Transfer Lab	ME2546	B. Tech-ME
169.	Mechatronics	ME2549	B. Tech-ME
170.	Micro Processors and Interfacing	EC2520	B. Tech-ME
171.	Node and Angular JS	CS2512	B. Tech-ME
172.	Turbo Machinery	ME2528	B. Tech-ME
173.	Elements of Civil Engineering	CE2515	B. Tech-ME
174.	Building Services	CE2516	B. Tech-ME
175.	Electrical Materials	EE2515	B. Tech-ME
176.	Control Systems Engineering	EE2516	B. Tech-ME
177.	Elements of Manufacturing Processes	ME2520	B. Tech-ME
178.	Automotive Engineering	ME2521	B. Tech-ME
179.	Introduction to Microprocessors and Microcontrollers	EC2531	B. Tech-ME
180.	Fundamentals of Communications	EC2532	B. Tech-ME
181.	Computer Graphics	CT2514	B. Tech-ME
182.	Object Oriented Programming through JAVA	CT2507	B. Tech-ME
183.	Systems Software	CT2515	B. Tech-ME
184.	Web Programming	IT2502	B. Tech-ME
185.	Mathematical Cryptography	MA2516	B. Tech-ME
186.	Semiconductor Physics	PH2508	B. Tech-ME
187.	Geoinformatics	CE2503	B. Tech-ME
188.	Environmental Sanitation	CE2531	B. Tech-ME
189.	Power Systems Engineering	EE2524	B. Tech-ME
190.	Elements of Mechanical Transmission	ME2532	B. Tech-ME
191.	Material Handling Equipment	ME2533	B. Tech-ME
192.	Introduction to MEMS	EC2544	B. Tech-ME
193.	Data Science	CS2508	B. Tech-ME
194.	Virtual and Augmented Reality	CT2524	B. Tech-ME
195.	Quality, Reliability and Operations Research	MA2517	B. Tech-ME
196.	Hydrology	CE2543	B. Tech-ME
197.	Planning for Sustainable Development	CE2544	B. Tech-ME
198.	Electrical and Hybrid Vehicles	EE2531	B. Tech-ME
199.	Bio-Medical Engineering	EC2507	B. Tech-ME
200.	Node and Angular JS	CS2512	B. Tech-ME
201.	Cyber Security	CS2513	B. Tech-ME
202.	Software Project Management	CT2531	B. Tech-ME

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
203.	Elements of Stochastic Processes	MA2518	B. Tech-ME
204.	Academic Communication	EG2505	B. Tech-ME
205.	Assistive Technologies	EC2523	B. Tech-ME
206.	Power Plant Instrumentation	EE2532	B. Tech-ME
207.	Cyber Security	CS2513	B. Tech-ME
208.	Data Science	CS2508	B. Tech-ME
209.	Data Structures	CT2505	B. Tech-ME
210.	Database Management Systems	CT2513	B. Tech-ME
211.	Mechanical Vibrations	ME2530	B. Tech-ME
212.	Mechanics of Composite Materials	ME2531	B. Tech-ME
213.	Non-Conventional Sources of Energy	ME2529	B. Tech-ME
214.	Principles of Finite Element Method	ME2543	B. Tech-ME
215.	Robotics	ME2544	B. Tech-ME
216.	Problem Solving Through Computer Programming	CT2502	B. Tech-ECE
217.	Computer Programming Lab	CT2503	B. Tech-ECE
218.	Linear Electrical Networks	EE2504	B. Tech-ECE
219.	Linear Algebra and Differential Equations	MA2501	B. Tech-ECE
220.	Integral transforms and Vector Calculus	MA2504	B. Tech-ECE
221.	Numerical Methods & Complex Analysis	MA2505	B. Tech-ECE
222.	Solid State Physics	PH2504	B. Tech-ECE
223.	Solid State Physics Lab	PH2505	B. Tech-ECE
224.	Applied Chemistry	CH2503	B. Tech-ECE
225.	Engineer and Society	EN2502	B. Tech-ECE
226.	Probability Theory and Stochastic Process	EC2524	B. Tech-ECE
227.	Electronic Devices	EC2525	B. Tech-ECE
228.	Engineering Economics And Project Management	BA2501	B. Tech-ECE
229.	Elements of Electrical Engineering	EE2505	B. Tech-ECE
230.	Electronic Devices Lab	EC2527	B. Tech-ECE
231.	Analog Circuits	EC2529	B. Tech-ECE
232.	Analog Communications	EC2530	B. Tech-ECE
233.	Fundamentals of Communications	EC2532	B. Tech-ECE
234.	Digital Circuit Design	EC2505	B. Tech-ECE
235.	Fundamentals of Data Structures	CS2501	B. Tech-ECE
236.	Analog Circuits Lab	EC2533	B. Tech-ECE
237.	Digital Circuit Design Lab	EC2506	B. Tech-ECE

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
238.	Electronic Switching Systems	EC2534	B. Tech-ECE
239.	Introduction to Python Programming	CS2502	B. Tech-ECE
240.	Database Management Systems	CT2513	B. Tech-ECE
241.	Mathematical Cryptography	MA2516	B. Tech-ECE
242.	Linear Integrated Circuits Applications	EC2536	B. Tech-ECE
243.	Digital Communications	EC2537	B. Tech-ECE
244.	Antennas and Wave Propagation	EC2538	B. Tech-ECE
245.	Principles of VLSI Design	EC2539	B. Tech-ECE
246.	CAD for VLSI	EC2540	B. Tech-ECE
247.	Computer Organization	EC2541	B. Tech-ECE
248.	Computer And Communication Networks	EC2542	B. Tech-ECE
249.	Biomedical Engineering	EC2507	B. Tech-ECE
250.	Introduction To MEMS	EC2544	B. Tech-ECE
251.	Linear Integrated Circuits Applications Lab	EC2545	B. Tech-ECE
252.	Analog and Digital Communications Lab	EC2546	B. Tech-ECE
253.	Microprocessors, Microcontrollers and Applications	EC2510	B. Tech-ECE
254.	Analog IC Design	EC2549	B. Tech-ECE
255.	Nano Electronics	EC2516	B. Tech-ECE
256.	Smart Antennas	EC2550	B. Tech-ECE
257.	Coding Theory	EC2551	B. Tech-ECE
258.	Microprocessor and Microcontroller Interfacing Lab	EC2515	B. Tech-ECE
259.	VLSI Lab	EC2553	B. Tech-ECE
260.	Data Warehousing and Data Mining	CT2528	B. Tech-ECE
261.	Mechatronics	ME2549	B. Tech-ECE
262.	Quality, Reliability and Operations Research	MA2517	B. Tech-ECE
263.	Elements of Stochastic process	MA2518	B. Tech-ECE
264.	Problem Solving through Computing Programming	CT2502	B. Tech-CSE
265.	Computer Programming Lab	CT2503	B. Tech-CSE
266.	Python Programming	CT2504	B. Tech-CSE
267.	Linear Algebra and Integral Transforms	MA2502	B. Tech-CSE
268.	Numerical Methods and Differential Equations	MA2506	B. Tech-CSE
269.	Applied Physics	PH2506	B. Tech-CSE
270.	Applied Physics Lab	PH2507	B. Tech-CSE
271.	Engineer and Society	EN2502	B. Tech-CSE



<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
272.	Data Structure	CT2505	B. Tech-CSE
273.	UNIX programming Lab	CS2503	B. Tech-CSE
274.	Computer Organization and Architecture	CT2512	B. Tech-CSE
275.	Database Management Systems Lab	CT2516	B. Tech-CSE
276.	Operating Systems Lab	CS2504	B. Tech-CSE
277.	Computer Graphs	CT2514	B. Tech-CSE
278.	Compiler Design	CT2518	B. Tech-CSE
279.	Computer Networks	CS2519	B. Tech-CSE
280.	Web Technologies	CT2520	B. Tech-CSE
281.	C#.NET	CS2506	B. Tech-CSE
282.	Advanced Data Structures	CT2522	B. Tech-CSE
283.	Software Testing Methodologies	CT2523	B. Tech-CSE
284.	Principles of Programming Languages	CS2507	B. Tech-CSE
285.	Computer Networks and Compiler Design lab	CS2509	B. Tech-CSE
286.	Data Warehousing Data Mining	CT2528	B. Tech-CSE
287.	Design and Analysis of Algorithms	CT2527	B. Tech-CSE
288.	Cyber Security	CS2513	B. Tech-CSE
289.	Node and Angular JS	CS2512	B. Tech-CSE
290.	Software Project Management	CT2531	B. Tech-CSE
291.	Scripting Languages	CT2529	B. Tech-CSE
292.	Artificial Intelligence	CT2521	B. Tech-CSE
293.	UML and Design patterns	CS2511	B. Tech-CSE
294.	Graph Theory	CS2514	B. Tech-CSE
295.	Web Technologies lab	CS2516	B. Tech-CSE
296.	Data Mining lab	CT2525	B. Tech-CSE
297.	Quality, Reliability and Operations Research	MA2517	B. Tech-CSE
298.	Elements of Stochastic process	MA2518	B. Tech-CSE
299.	Programming for Problem Solving	CT3502	B. Tech-IT
300.	C Programming Lab	CT3503	B. Tech-IT
301.	Data Structures Lab	CT3507	B. Tech-IT
302.	Linear Algebra and Integral Transforms	MA2502	B. Tech-IT
303.	Numerical Methods and Differential Equations	MA2506	B. Tech-IT
304.	Applied Physics	PH2506	B. Tech-IT
305.	Applied Physics Lab	PH2507	B. Tech-IT
306.	Applied Chemistry Lab	CH2504	B. Tech-IT
307.	Chemistry	CH2506	B. Tech-IT

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
308.	Engineer and Society	EN2502	B. Tech-IT
309.	Data Structures	CT2505	B. Tech-IT
310.	UNIX and Shell Programming	IT2501	B. Tech-IT
311.	Object Oriented Programming Lab	CT2509	B. Tech-IT
312.	Computer Organization and Architecture	CT2512	B. Tech-IT
313.	Systems Software	CT2515	B. Tech-IT
314.	Web Programming	IT2502	B. Tech-IT
315.	Database Management Systems Lab	CT2516	B. Tech-IT
316.	Information and Communication Technology	IT2503	B. Tech-IT
317.	Mathematical Cryptography	MA2516	B. Tech-IT
318.	Web Technologies	CT2520	B. Tech-IT
319.	Embedded System Design	EC2512	B. Tech-IT
320.	Advanced Data Structures	CT2522	B. Tech-IT
321.	Cyber Laws	IT2506	B. Tech-IT
322.	Web Technologies Lab	CT2525	B. Tech-IT
323.	Soft Computing Techniques	IT2511	B. Tech-IT
324.	Real Time Systems	IT2512	B. Tech-IT
325.	Agile Software Development Process	CT2532	B. Tech-IT
326.	Scripting Languages	CT2529	B. Tech-IT
327.	Computer Networks and Data Mining Lab	IT2513	B. Tech-IT
328.	Open Source Software	IT2505	B. Tech-IT
329.	Software Project Management	CT2531	B. Tech-IT
330.	Quality, Reliability and Operations Research	MA2517	B. Tech-IT
331.	Elements of Stochastic process	MA2518	B. Tech-IT
332.	Managerial Economics and Financial Analysis	BA1502	B. Tech-IT
333.	Finite Element Method	CE1540	B. Tech-CE
334.	Advanced Structural Analysis	CE1541	B. Tech-CE
335.	Advanced Environmental Engineering	CE1542	B. Tech-CE
336.	Design And Drawing of Irrigation Structures	CE1543	B. Tech-CE
337.	Design of Industrial Structures	CE1544	B. Tech-CE
338.	Air Pollution and its Control	CE1545	B. Tech-CE
339.	Architecture and Town planning	CE1547	B. Tech-CE
340.	Building services	CE1548	B. Tech-CE
341.	Structural Engineering lab	CE1549	B. Tech-CE
342.	Transportation Engineering Lab	CE1550	B. Tech-CE
343.	Computer Applications in Civil Engineering Lab	CE1551	B. Tech-CE

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
344.	Advanced Concrete structures	CE1552	B. Tech-CE
345.	Docks and Harbour Engineering	CE1555	B. Tech-CE
346.	Industrial Waste Management	CE1557	B. Tech-CE
347.	Global Positioning Systems	CE1560	B. Tech-CE
348.	Industrial/Practical Training	CE1562	B. Tech-CE
349.	Statistical Methods using R Software	MA1510	B. Tech-CE
350.	HVDC Transmission Systems	EE1537	B. Tech-EEE
351.	Electrical Machine Design	EE1539	B. Tech-EEE
352.	Programmable Logic Controller	EE1540	B. Tech-EEE
353.	Computer Organization & Architecture	CS1505	B. Tech-EEE
354.	Electrical Costing & Estimation	EE1546	B. Tech-EEE
355.	Modelling and Analysis of Electrical Machines	EE1547	B. Tech-EEE
356.	High Voltage Engineering	EE1548	B. Tech-EEE
357.	EHV AC/ DC Transmission Systems	EE1551	B. Tech-EEE
358.	Power Plant Instrumentation	EE1552	B. Tech-EEE
359.	Electrical Safety Management	EE1553	B. Tech-EEE
360.	Industrial/ Practical Training	EE1554	B. Tech-EEE
361.	Statistical Methods using R Software	MA1510	B. Tech-EEE
362.	Heat Transfer	ME1540	B. Tech-ME
363.	CAD / CAM Lab	ME1549	B. Tech-ME
364.	Heat Transfer Lab	ME1550	B. Tech-ME
365.	Computational Methods for Engineers Lab	ME1551	B. Tech-ME
366.	Computational Fluid Dynamics	ME1541	B. Tech-ME
367.	Robotics	ME1542	B. Tech-ME
368.	Interactive Computer Graphics	ME1543	B. Tech-ME
369.	Mechanical Vibrations	ME1544	B. Tech-ME
370.	Production Planning and Control	ME1545	B. Tech-ME
371.	Tribology	ME1546	B. Tech-ME
372.	Refrigeration & Air Conditioning	ME1547	B. Tech-ME
373.	Fracture Mechanics	ME1548	B. Tech-ME
374.	Condition Monitoring	ME1553	B. Tech-ME
375.	Rapid Prototyping	ME1554	B. Tech-ME
376.	Design for Manufacturing & Assembly	ME1555	B. Tech-ME
377.	Supply Chain Management	ME1559	B. Tech-ME
378.	Statistical Methods using R Software	MA1510	B. Tech-ME
379.	Electronic Measurements and Instrumentation	EC1545	B. Tech-ECE

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
380.	Microcontrollers and Embedded Systems	EC1546	B. Tech-ECE
381.	Sensors and Instrumentation	EC1548	B. Tech-ECE
382.	Advanced Computer Architecture	CS1524	B. Tech-ECE
383.	DSP Architecture and Applications	EC1549	B. Tech-ECE
384.	FPGA Design	EC1550	B. Tech-ECE
385.	Digital TV Engineering	EC1551	B. Tech-ECE
386.	Digital Image Processing	EC1552	B. Tech-ECE
387.	Embedded Real Time Operating Systems	EC1553	B. Tech-ECE
388.	Assistive Technologies	EC1554	B. Tech-ECE
389.	Introduction to Embedded Systems	EC1555	B. Tech-ECE
390.	Microwave and Optical Communications Lab	EC1557	B. Tech-ECE
391.	VLSI and Embedded Systems Lab	EC1558	B. Tech-ECE
392.	Testing and Verification of VLSI Circuits	EC1559	B. Tech-ECE
393.	Low Power VLSI Design	EC1563	B. Tech-ECE
394.	Software Engineering	EC1565	B. Tech-ECE
395.	Bio-Medical Instrumentation	EC1566	B. Tech-ECE
396.	Internet of Things	EC1567	B. Tech-ECE
397.	Consumer Electronics	EC1568	B. Tech-ECE
398.	Industrial/Practical Training	EC1569	B. Tech-ECE
399.	Statistical Methods using R Software	MA1510	B. Tech-ECE
400.	Information Security	CS1522	B. Tech-CSE
401.	Embedded Systems	CS1525	B. Tech-CSE
402.	Bio-Informatics	CS1526	B. Tech-CSE
403.	Distributed Systems	CS1527	B. Tech-CSE
404.	Mobile Application Development	CS1520	B. Tech-CSE
405.	Digital Image Processing	CT1521	B. Tech-CSE
406.	Parallel Computing	CS1528	B. Tech-CSE
407.	Software Testing Methodologies	CT1522	B. Tech-CSE
408.	Real Time Systems	IT2512	B. Tech-CSE
409.	Web Services	CS1529	B. Tech-CSE
410.	Information Security Lab	CS1523	B. Tech-CSE
411.	Multi Media Application Development lab	CT1523	B. Tech-CSE
412.	Distributed Data Bases	CT1524	B. Tech-CSE
413.	Software Project Management	CT1525	B. Tech-CSE
414.	Semantic Web	CS1533	B. Tech-CSE
415.	Machine Learning	CS1534	B. Tech-CSE

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
416.	Cloud Computing	CT1520	B. Tech-CSE
417.	Wireless Networks	CS1535	B. Tech-CSE
418.	Big Data	CT1519	B. Tech-CSE
419.	Social Networks	CS1519	B. Tech-CSE
420.	e- Waste Management	CS1531	B. Tech-CSE
421.	Management Information Systems	CS1532	B. Tech-CSE
422.	Advanced Computer Architecture	CS1524	B. Tech-CSE
423.	Statistical Methods using R Software	MA1510	B. Tech-CSE
424.	Data Warehousing and Data Mining	CT1517	B. Tech-IT
425.	Multimedia Application Development	IT1522	B. Tech-IT
426.	Distributed Databases	CT1524	B. Tech-IT
427.	Human Computer Interaction	CT1518	B. Tech-IT
428.	Bio-Metrics	IT1523	B. Tech-IT
429.	Software Testing Methodologies	CT1522	B. Tech-IT
430.	Information Retrieval Systems	IT1524	B. Tech-IT
431.	Digital Image Processing	CT1521	B. Tech-IT
432.	Mobile Computing	IT1525	B. Tech-IT
433.	Software Project Management	CT1525	B. Tech-IT
434.	Mobile Application Lab	IT1527	B. Tech-IT
435.	Multimedia Application Development Lab	CT1523	B. Tech-IT
436.	Free and Open Source Software Lab	IT1526	B. Tech-IT
437.	E-Commerce	IT1529	B. Tech-IT
438.	Cloud Computing	CT1520	B. Tech-IT
439.	Business Intelligence	IT1530	B. Tech-IT
440.	Big Data	CT1519	B. Tech-IT
441.	Soft Computing	IT1531	B. Tech-IT
442.	Computer Forensics	IT1532	B. Tech-IT
443.	Software Quality Assurance	IT1533	B. Tech-IT
444.	Industrial / Practical Training	IT1534	B. Tech-IT
445.	Remote Sensing and GIS Techniques	CE1522	B. Tech-IT
446.	Elements of civil Engineering	CE1523	B. Tech-IT
447.	Modelling and Simulation of Engineering Systems	EE1522	B. Tech-IT
448.	Renewable Energy Sources	ME1525	B. Tech-IT
449.	Elements of Mechanical Engineering	ME1526	B. Tech-IT
450.	Computer Networks	CS1507	B. Tech-IT
451.	Object Oriented Programming	CT1506	B. Tech-IT

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
452.	Cyber Laws	CS1508	B. Tech-IT
453.	Open Source Software	IT1505	B. Tech-IT
454.	Fundamentals of Data Base Management Systems	IT1506	B. Tech-IT
455.	Fuzzy Mathematics	MA1507	B. Tech-IT
456.	Disaster Management	CE1534	B. Tech-IT
457.	Solid Waste Management	CE1535	B. Tech-IT
458.	Material Science	ME1535	B. Tech-IT
459.	Automotive Electronics	EC1540	B. Tech-IT
460.	Introduction to MPMC	EC1541	B. Tech-IT
461.	Cloud Computing	CT1525	B. Tech-IT
462.	Web Technologies	CS1511	B. Tech-IT
463.	Virtual Reality	CS1513	B. Tech-IT
464.	Scripting Languages	IT1510	B. Tech-IT
465.	Big Data	IT1511	B. Tech-IT
466.	Multi-variant analysis and Special Functions	MA1509	B. Tech-IT
467.	Network Management Systems	IT1519	B. Tech-IT
468.	Fundamentals of E-Commerce	IT1520	B. Tech-IT
469.	Statistical Methods using R Softwaree	MA1510	B. Tech-IT
470.	Ground Improvement Techniques	CE2906	M. Tech-SE
471.	Advanced Concrete Technology and Structural Engineering lab	CE2908	M. Tech-SE
472.	Research Methodologies	BA2901	M. Tech-SE
473.	Advanced Design of Steel Structures	CE2912	M. Tech-SE
474.	Fracture Mechanics of Concrete	CE2914	M. Tech-SE
475.	Design of Sub-structures	CE2915	M. Tech-SE
476.	High Rise Buildings	CE2917	M. Tech-SE
477.	Linear and Non-Linear Optimization technique	MA2902	M. Tech-PEED
478.	Advanced Electric Drives	EE2912	M. Tech-PEED
479.	Research Methodology	EE2910	M. Tech-PEED
480.	Application of Power Electronics to Power Systems	EE2915	M. Tech-PEED
481.	Advanced Digital Control Systems	EE3915	M. Tech-PEED
482.	Computational Methods in Engineering	MA2901	M. Tech-PEED
483.	Advanced Mechanics of Solids	ME2901	M. Tech-MD
484.	Analysis and Synthesis of Mechanisms	ME2902	M. Tech-MD
485.	Mechanical Vibrations	ME2903	M. Tech-MD

<b>S. No</b>	<b>Name of the Course</b>	<b>Course Code</b>	<b>Programme Name</b>
486.	Gear Engineering	ME2904	M. Tech-MD
487.	Rotor Dynamics	ME2905	M. Tech-MD
488.	Experimental Stress Analysis	ME2906	M. Tech-MD
489.	Product Design	ME2907	M. Tech-MD
490.	Machine Dynamics Lab	ME2908	M. Tech-MD
491.	Research Methodologies	ME2905	M. Tech-MD
492.	Finite Element Methods **	ME2909	M. Tech-MD
493.	Design with Advanced Materials	ME2910	M. Tech-MD
494.	Design for Manufacturing and Assembly	ME2911	M. Tech-MD
495.	Fracture Mechanics	ME2912	M. Tech-MD
496.	Condition Monitoring	ME2913	M. Tech-MD
497.	Rapid Tooling and Prototyping	ME2914	M. Tech-MD
498.	Theory of Elasticity	ME2915	M. Tech-MD
499.	Geometric Modelling	ME2916	M. Tech-MD
500.	Tribology	ME2917	M. Tech-MD
501.	Modelling and Analysis Lab	ME2918	M. Tech-MD
502.	Linear and Non-Linear Optimization Techniques	MA3902	M. Tech-VLSI&ES
503.	Embedded System Design	EC3903	M. Tech-VLSI&ES
504.	Advanced Digital Design	EC3904	M. Tech-VLSI&ES
505.	Advanced Microcontrollers	EC3905	M. Tech-VLSI&ES
506.	CMOS VLSI circuits	EC3906	M. Tech-VLSI&ES
507.	Testing & Testability of VLSI circuits	EC3907	M. Tech-VLSI&ES
508.	VLSI Digital Signal Processing	EC3908	M. Tech-VLSI&ES
509.	Real Time Operating systems	EC3909	M. Tech-VLSI&ES
510.	Embedded Processors	EC3910	M. Tech-VLSI&ES
511.	VLSI Design Lab	EC3911	M. Tech-VLSI&ES
512.	Research Methodologies	HS3901	M. Tech-VLSI&ES
513.	VLSI System Design	EC3912	M. Tech-VLSI&ES
514.	Hardware and Software Co-Design	EC3913	M. Tech-VLSI&ES
515.	Internet of Things	EC3914	M. Tech-VLSI&ES
516.	ASIC System Design	EC3915	M. Tech-VLSI&ES
517.	Advances in VLSI Design	EC3916	M. Tech-VLSI&ES
518.	Embedded Computing Architectures	EC3917	M. Tech-VLSI&ES
519.	Advanced Computer Networks	EC3918	M. Tech-VLSI&ES
520.	System-on-Chip Design	EC3919	M. Tech-VLSI&ES
521.	VLSI Interconnects	EC3920	M. Tech-VLSI&ES

S. No	Name of the Course	Course Code	Programme Name
522.	RF VLSI design	EC3921	M. Tech-VLSI&ES
523.	Advanced Digital Signal Processing	EC3922	M. Tech-VLSI&ES
524.	Internet of Things Lab	EC3923	M. Tech-VLSI&ES
525.	Statistics with R Programming	MA2903	M. Tech-VLSI&ES
526.	Advanced Data Structures & Algorithm Analysis	CS2901	M. Tech-VLSI&ES
527.	Object Oriented Software Engineering	CS2903	M. Tech-VLSI&ES
528.	Business Intelligence	CS2904	M. Tech-VLSI&ES
529.	Embedded Networking	CS2905	M. Tech-VLSI&ES
530.	Sensors and Actuators	CS2906	M. Tech-VLSI&ES
531.	Low Power CMOS Digital Design	CS2907	M. Tech-VLSI&ES
532.	Advanced Data Structures & Algorithm and R Programming Lab	CS2908	M. Tech-VLSI&ES
533.	Research Methodology	HS3901	M. Tech-VLSI&ES
534.	Information Security	CS2909	M. Tech-CSE
535.	Scripting Languages	CS2910	M. Tech-CSE
536.	Data Analytics	CS2911	M. Tech-CSE
537.	Advanced Operating Systems	CS2912	M. Tech-CSE
538.	Machine Learning	CS2913	M. Tech-CSE
539.	Software Testing Methodologies	CS2914	M. Tech-CSE
540.	Soft Computing	CT2901	M. Tech-CSE
541.	Internet of Things	CS2915	M. Tech-CSE
542.	Information Security & Scripting Languages Lab	CS2916	M. Tech-CSE
543.	Business Environment and Legislation	BA2904	MBA
544.	Business Law	BA2905	MBA
545.	E-Business	BA2915	MBA
546.	Training & Development	BA2921	MBA
547.	Industrial Relations and Labour Laws	BA2922	MBA
548.	Sales & Distribution Management	BA2925	MBA
549.	Compensation Management	BA2928	MBA

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



## 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	EG2501	Functional English	4	-	-	3
2	MA2501	Linear Algebra & Differential Equations	4	1	-	4
3	EN2502	Engineer and Society	3	-	-	2
4	CH2501	Engineering Chemistry	3	-	-	2
5	CT2501	Problem Solving Using C *	4	-	2	4
6	ME2501	Engineering Drawing	1	-	4	3
7	EG2502	Functional English Lab	-	-	2	1
8	CH2502	Engineering Chemistry Lab	-	-	2	1
<b>Total</b>			<b>19</b>	<b>1</b>	<b>10</b>	<b>20</b>

\* 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	EG2503	Professional Communication	3	-	-	2
2	MA2503	Integral Transforms and Multiple Integrals	3	1	-	3
3	EN2501	Environmental Studies	3	-	-	2
4	PH2501	Engineering Physics	3	1	-	3
5	CE2501	Engineering Mechanics	4	1	-	4
6	EG2504	Professional Communication Lab	-	-	4	2
7	CE2502	Computer Aided Drafting Lab	-	-	4	2
8	PH2503	Engineering Physics Lab	-	-	2	1
9	CE2503	Applied Mechanics Lab and Building Trade Practice	-	-	2	1
<b>Total</b>			<b>16</b>	<b>3</b>	<b>12</b>	<b>20</b>

L : Lecture

T : Tutorial

P : Practical

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
<b>Total</b>			<b>17</b>	<b>4</b>	<b>11</b>	<b>21</b>
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
<b>Total</b>			<b>18</b>	<b>3</b>	<b>10</b>	<b>20</b>
9	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-
10		<b>Optional Elective - I</b>	-	-	-	3
	CE2519	i) Interior Design				
	CE2520	ii) Building Bye Laws and Scientific Planning				
	CT2505	iii) Data Structures				
11	CE2521	<b>Optional Elective - II (MOOCs)</b> Student shall opt from the list of MOOCs given by the Department)	-	-	-	2

\* Integrated Course with Theory and Laboratory

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
<b>Total</b>			<b>20</b>	<b>3</b>	<b>8</b>	<b>21</b>
9		<b>Optional Elective - III</b>	-	-	-	3
	CE2534	i) Infrastructure Development				
	ME2509	ii) Basics of Power Plant Engineering				
	CT2507	iii) Object Oriented Programming through JAVA				
10	CE2535	<b>Optional Elective - IV (MOOCs)</b> 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
<b>Total</b>			<b>18</b>	<b>1</b>	<b>12</b>	<b>20</b>
9		<b>Optional Elective - V</b>	-	-	-	3
	CE2548	i) Smart Buildings and Automation				
	CE2549	ii) Building Information Modeling				
	CT2513	iii) Database Management Systems				
10	CE2550	<b>Optional Elective - VI (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

\* Integrated Course with Theory and Laboratory

L : Lecture      T : Tutorial      P : Practical

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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	
		<b>Professional Elective - I</b>	4	-	-	3
	CE2526	i) Advanced Strength of Materials				
	CE2527	ii) GIS and GPS				
	CE2528	iii) Green Buildings				
	CE2529	iv) Construction Management				
		<b>Professional Elective - II</b>	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				
		<b>Professional Elective - III</b>	4	-	-	3
	CE2554	i) Pre-stressed Concrete				
	CE2555	ii) Advanced Foundation Engineering				
	CE2556	iii) Traffic Engineering				
	CE2557	iv) Industrial Wastewater Management				
		<b>Professional Elective - IV</b>	4	-	-	3
	CE2558	i) Advanced Design of RC Structures				
	CE2559	ii) Hydraulic Structures				
	CE2560	iii) Geosynthetics				
	CE2561	iv) Disaster Preparedness and Planning				
		<b>Professional Elective - V</b>	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				
		<b>Professional Elective - VI</b>	4	-	-	3
	CE2572	i) Pre-Engineered Buildings				
	CE2573	ii) Urban Transportation Planning				
	CE2574	iii) Soil Dynamics and Machine Foundations				
	CE2575	iv) Environmental Impact Assessment				

L : Lecture

T : Tutorial

P : Practical

### 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	EG2501	Functional English	4	-	-	3
2	MA2501	Linear Algebra & Differential Equations	4	1	-	4
3	EN2502	Engineer and Society	3	-	-	2
4	CH2503	Applied Chemistry	3	-	-	2
5	CT2501	Problem Solving Using C *	4	-	2	4
6	ME2501	Engineering Drawing	1	-	4	3
7	EG2502	Functional English Lab	-	-	2	1
8	CH2504	Applied Chemistry Lab	-	-	2	1
<b>Total</b>			<b>19</b>	<b>1</b>	<b>10</b>	<b>20</b>

\* 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	EG2503	Professional Communication	3	-	-	2
2	MA2504	Integral Transforms and Vector Calculus	4	1	-	4
3	EE2507	Elements of Electrical Circuits	3	1	-	3
4	PH2504	Solid State Physics	4	-	-	3
5	EN2501	Environmental Studies	3	-	-	2
6	ME2503	Elements of Mechanical Engineering	3	1	-	3
7	EG2504	Professional Communication Lab	-	-	4	2
8	PH2505	Solid State Physics Lab	-	-	2	1
<b>Total</b>			<b>20</b>	<b>3</b>	<b>6</b>	<b>20</b>

L : Lecture

T : Tutorial

P : Practical

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
<b>Total</b>			<b>15</b>	<b>4</b>	<b>14</b>	<b>21</b>
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
<b>Total</b>			<b>19</b>	<b>4</b>	<b>8</b>	<b>21</b>
9	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-
10		<b>Optional Elective - I</b>	-	-	-	3
	EC2507	i) Biomedical Engineering				
	CT2512	ii) Computer Organisation and Architecture				
	EE2518	iii) Introduction to Quantum Mechanics for Engineers				
11	EE2519	<b>Optional Elective - II (MOOCs)</b>	-	-	-	2
Student shall opt from the list of MOOCs given by the Department)						

L : Lecture      T : Tutorial      P : Practical

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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		<b>Professional Elective - I</b>	4	-	-	3
5		<b>Open Elective-II</b> (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
<b>Total</b>			<b>18</b>	<b>2</b>	<b>12</b>	<b>21</b>
9		<b>Optional Elective - III</b>	-	-	-	3
	ME2549	i) Mechatronics				
	CT2507	ii) Object Oriented Programming Through Java				
	EE2528	iii) Control System Design				
10	EE2529	<b>Optional Elective - IV (MOOCs)</b>	-	-	-	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		<b>Professional Elective - II</b>	4	-	-	3
5		<b>Open Elective-III</b> (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
<b>Total</b>			<b>17</b>	<b>3</b>	<b>12</b>	<b>21</b>
9		<b>Optional Elective - V</b>	-	-	-	3
	CT2513	i) Data Base Management Systems				
	EC2516	ii) Nano Electronics				
	EE2535	iii) Solar and Wind Energy Systems				
10	EE2536	<b>Optional Elective - VI (MOOCs)</b>	-	-	-	2
Students shall opt from the list of MOOCs given by the Department)						

\* Project Based Theory Course

L : Lecture

T : Tutorial

P : Practical

### 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	
		<b>Professional Elective - I</b>	4	-	-	3
	EE2522	i) Switch Gear and Protection				
	CT2519	ii) Computer Networks				
	EC2509	iii) Pulse and Integrated Circuits				
	CT2505	iv) Data Structures				
		<b>Professional Elective - II</b>	4	-	-	3
	EC2511	i) Digital Signal Processing				
	EC2512	ii) Embedded System Design				
	EC2513	iii) Principles of VLSI Design				
	EC2514	iv) DSP Processors and Architecture				
		<b>Professional Elective - III</b>	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				
		<b>Professional Elective - IV</b>	3	1	-	3
	CS2513	i) Cyber Security				
	EC2518	ii) Digital Image Processing				
	EE2540	iii) Power System Operation & Control				
	EE2541	iv) High Voltage Engineering				
		<b>Professional Elective - V</b>	-	-	-	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	--	
		<b>Professional Elective - VI</b>	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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**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	EG2501	Functional English	4	-	-	3
2	MA2501	Linear Algebra & Differential Equations	4	1	-	4
3	PH2502	Physics for Engineers	3	1	-	3
4	EN2501	Environmental Studies	3	-	-	2
5	CT2501	Problem Solving Using C *	4	-	2	4
6	ME2505	Engineering Graphics	1	-	4	3
7	EG2502	Functional English Lab	-	-	2	1
8	PH2503	Engineering Physics Lab	-	-	2	1
<b>Total</b>			<b>19</b>	<b>2</b>	<b>10</b>	<b>21</b>

\* 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	EG2503	Professional Communication	3	-	-	2
2	MA2503	Integral Transforms and Multiple Integrals	3	1	-	3
3	EN2502	Engineer & Society	3	-	-	2
4	CH2505	Industrial Chemistry	3	1	-	3
5	CE2501	Engineering Mechanics	4	1	-	4
6	ME2506	Computer Aided Engineering Drawing	-	-	2	1
7	ME2507	Engineering Workshop	-	-	2	1
8	EG2504	Professional Communication Lab	-	-	4	2
9	ME2508	Industrial Chemistry Lab & Engg. Mechanics Lab	-	-	2	1
<b>Total</b>			<b>16</b>	<b>3</b>	<b>10</b>	<b>19</b>

L : Lecture

T : Tutorial

P : Practical

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
<b>Total</b>			<b>16</b>	<b>4</b>	<b>8</b>	<b>19</b>
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		<b>Open Elective-I</b> (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
<b>Total</b>			<b>17</b>	<b>3</b>	<b>10</b>	<b>20</b>
9	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-
10		<b>Optional Elective - I</b>	-	-	-	3
	EE2512	i) Control Systems				
	ME2525	ii) Nano Technology				
	CT2506	iii) Digital Logic Design				
11	ME2526	<b>Optional Elective - II (MOOCs)</b> Student shall opt from teh 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
<b>Total</b>			<b>18</b>	<b>2</b>	<b>12</b>	<b>21</b>
9		<b>Optional Elective - III</b>	-	-	-	3
	CT2514	i) Computer Graphics				
	EE2503	ii) Fuzzy Logic Systems				
	EC2520	iii) Micro Processors and Interfacing				
10	ME2537	<b>Optional Elective - IV (MOOCs)</b> 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
<b>Total</b>			<b>21</b>	<b>3</b>	<b>10</b>	<b>23</b>
10		<b>Optional Elective - V</b>	-	-	-	3
	CT2507	i) Object Oriented Programming through Java				
	ME2549	ii) Mechatronics				
	EC2512iii)	Embedded System Design				
11	ME2550	<b>Optional Elective - VI (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

L : Lecture

T : Tutorial

P : Practical

### Open Elective - I

Sl. No.	Code	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.	Code	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

L : Lecture      T : Tutorial      P : Practical



### 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	
		<b>Professional Elective - I</b>	4	-	-	3
	ME2529	i) Non Conventional Sources of Energy				
	ME2530	ii) Mechancial Vibrations				
	ME2531	iii) Mechancis of Composite Materials				
	CT2505	iv) Data Structures				
		<b>Professional Elective - II</b>	4	-	-	3
	ME2543	i) Principles of Finite Element Method				
	ME2544	ii) Robotics				
	ME2545	iii) Automobile Engineering				
	CT2513	iv) Database Management Systems				
		<b>Professional Elective - III</b>	4	-	-	3
	MA2515	i) Optimization Techniques				
	ME2555	ii) Refrigeration and Air Conditioning				
	ME2556	iii) Unconventional Machining Process				
	ME2557	iv) Tribology				
		<b>Professional Elective - IV</b>	4	-	-	3
	ME2558	i) Total Quality Management				
	ME2559	ii) Computational Fluid Dynamics				
	ME2560	iii) Condition Monitoring				
	ME2561	iv) Design of Transmission Elements				
		<b>Professional Elective - V</b>	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				
		<b>Professional Elective - VI</b>	4	-	-	3
	ME2571	i) Rapid Prototyping				
	ME2572	ii) Gas Dynamics and Jet Propulsion				
	ME2573	iii) Automation in Manufacturing				
	ME2574	iv) Non Destructive Techniques				

L : Lecture      T : Tutorial      P : Practical

**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	EG2501	Functional English	4	-	-	3
2	MA2501	Linear Algebra & Differential Equations	4	1	-	4
3	EN2502	Engineer & Society	3	-	-	2
4	PH2504	Solid State Physics	4	-	-	3
5	CT2502	Problem Solving through Computer Programming	4	-	-	3
6	EG2502	Functional English Lab	-	-	2	1
7	PH2505	Solid State Physics Lab	-	-	2	1
8	CT2503	Computer Programming Lab	-	-	4	2
<b>Total</b>			<b>19</b>	<b>1</b>	<b>8</b>	<b>19</b>

**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	EG2503	Professional Communication	3	-	-	2
2	MA2504	Integral Transforms and Vector Calculus	4	1	-	4
3	CH2503	Applied Chemistry	3	-	-	2
4	EN2501	Environmental Studies	3	-	-	2
5	EE2504	Linear Electrical Networks	3	-	-	2
6	MA2505	Numerical Methods & Complex Analys	3	1	-	3
7	ME2501	Engineering Drawing	1	-	4	3
8	EG2504	Professional Communication Lab	-	-	4	2
9	CH2504	Applied Chemistry Lab	-	-	2	1
<b>Total</b>			<b>20</b>	<b>2</b>	<b>10</b>	<b>21</b>

L : Lecture      T : Tutorial      P : Practical



**IQAC**



**PRINCIPAL**  
Seshadri Rao  
Gudlavalleru Engineering College  
Seshadri Rao Knowledge Village  
Gudlavalleru - 521 356, Krishna District. A.P.

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
<b>Total</b>			<b>20</b>	<b>2</b>	<b>6</b>	<b>19</b>
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
<b>Total</b>			<b>21</b>	<b>1</b>	<b>8</b>	<b>20</b>
9	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-
10		<b>Optional Elective - I</b>	-	-	-	3
	CS2502	i) Introduction to Python Programming				
	CT2513	ii) Database Management Systems				
	EC2534	iii) Electronic Switching Systems				
11	EC2535	<b>Optional Elective - II (MOOCs)</b> Student shall opt from the list of MOOCs given by the Department)	-	-	-	2

L : Lecture      T : Tutorial      P : Practical

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		<b>Professional Elective - I</b>	4	-	-	3
6		<b>Open Elective-II</b> (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
<b>Total</b>			<b>21</b>	<b>1</b>	<b>8</b>	<b>20</b>
9		<b>Optional Elective - III</b>	-	-	-	3
	CT2528	i) Data Warehousing and Data Mining				
	ME2549	ii) Mechatronics				
	EC2544	iii) Introduction to MEMS				
10	EC2547	<b>Optional Elective - IV (MOOCs)</b> 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		<b>Professional Elective - II</b>	4	-	-	3
6		<b>Open Elective-III</b> (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
<b>Total</b>			<b>21</b>	<b>1</b>	<b>13</b>	<b>23</b>
10		<b>Optional Elective - V</b>	-	-	-	3
	CT2534	i) Big Data Analytics				
	EC2554	ii) Cognitive Radio Networks				
	CT2533	iii) Cryptography and Network Security				
10	EC2555	<b>Optional Elective - VI (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

\* Project Based Theory Course

L : Lecture      T : Tutorial      P : Practical

### 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

L : Lecture      T : Tutorial      P : Practical

### 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

L : Lecture      T : Tutorial      P : Practical

### Professional Electives

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

L : Lecture      T : Tutorial      P : Practical



**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	EG2501	Functional English	4	-	-	3
2	MA2502	Linear Algebra and Integral Transforms	4	1	-	4
3	CH2506	Chemistry	4	-	-	3
4	EN2501	Environmental Studies	3	-	-	2
5	EE2506	Basic Electrical Engineering	3	-	-	2
6	CT2502	Problem Solving through Computer Programming	4	-	-	3
7	EG2502	Functional English Lab	-	-	2	1
8	CT2503	Computer Programming Lab	-	-	4	2
<b>Total</b>			<b>22</b>	<b>1</b>	<b>6</b>	<b>20</b>

**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	EG2503	Professional Communication	3	-	-	2
2	MA2506	Numerical Methods and Differential Equations	4	1	-	4
3	PH2506	Applied Physics	4	-	-	3
4	EN2502	Engineer and Society	3	-	-	2
5	EC2501	Elements of Electronics Engineering	3	1	-	3
6	CT2504	Python Programming *	3	-	2	3
7	EG2504	Professional Communication Lab	-	-	4	2
8	PH2507	Applied Physics Lab	-	-	2	1
<b>Total</b>			<b>20</b>	<b>2</b>	<b>8</b>	<b>20</b>

\* Integrated Course with Theory and Laboratory

L : Lecture      T : Tutorial      P : Practical

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
<b>Total</b>			<b>16</b>	<b>3</b>	<b>12</b>	<b>20</b>
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
<b>Total</b>			<b>19</b>	<b>5</b>	<b>8</b>	<b>22</b>
9	NS2501	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	-	-	2	-
10		<b>Optional Elective - I</b> CE2575 i) Environmental Impact Assessment EC2508 ii) Signals and Systems MA2514 iii) Fuzzy Logic	-	-	-	3
11	CS2505	<b>Optional Elective - II (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

L : Lecture      T : Tutorial      P : Practical

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
<b>Total</b>			<b>21</b>	<b>3</b>	<b>8</b>	<b>22</b>
9		<b>Optional Elective - III</b>	-	-	-	3
	CT2526	i) Human Computer Interaction				
	EC2511	ii) Digital Signal Processing				
	EE2512	iii) Control Systems				
10	CS2510	<b>Optional Elective - IV (MOOCs)</b> 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 Maining	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
<b>Total</b>			<b>18</b>	<b>1</b>	<b>10</b>	<b>19</b>
9		<b>Optional Elective - V</b>	-	-	-	3
	CS2516	i) Graph Theory				
	EC2512	ii) Embedded System Design				
	EE2554	iii) Digital Control Systems				
10	CS2517	<b>Optional Elective - VI (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

\* Integrated Course with Theory and Laboratory

L : Lecture      T : Tutorial      P : Practical

### 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

L : Lecture      T : Tutorial      P : Practical

### 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

L : Lecture      T : Tutorial      P : Practical

### Professional Electives

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

L : Lecture

T : Tutorial

P : Practical

**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	EG2501	Functional English	4	-	-	3
2	MA2502	Linear Algebra & Integral Transforms	4	1	-	4
3	PH2506	Applied Physics	4	-	-	3
4	EN2501	Environmental Studies	3	-	-	2
5	CT2502	Problem Solving through Computer Programming	4	-	-	3
6	EG2502	Functional English Lab	-	-	2	1
7	PH2507	Applied Physics Lab	-	-	2	1
8	CT2503	Computer Programming Lab	-	-	4	2
<b>Total</b>			<b>19</b>	<b>1</b>	<b>8</b>	<b>19</b>

**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	EG2503	Professional Communication	3	-	-	2
2	MA2506	Numerical Methods and Differential Equations	4	1	-	4
3	CH2506	Chemistry	4	-	-	3
4	EN2502	Engineer & Society	3	-	-	2
5	EC2501	Elements of Electronics Engineering	3	1	-	3
6	CT2504	Python Programming *	3	-	2	3
7	EG2504	Professional Communication Lab	-	-	4	2
8	EC2502	Elements of Electronics Engineering Lab	-	-	4	2
<b>Total</b>			<b>20</b>	<b>2</b>	<b>10</b>	<b>21</b>

\* Integrated Course with Theory and Laboratory

L : Lecture      T : Tutorial      P : Practical

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
<b>Total</b>			<b>17</b>	<b>3</b>	<b>10</b>	<b>20</b>
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		<b>Open Elective-I</b> (see list of Open Electives)	4	-	-	3
7	CT2516	Database Management Systems Lab	-	-	4	2
<b>Total</b>			<b>20</b>	<b>4</b>	<b>6</b>	<b>21</b>
8	SG2501	Sports and Games / Cultural (Mandatory Non-Credit Course)	-	-	2	-
9		<b>Optional Elective - I</b>	-	-	-	3
	IT2503	i) Information and Communication Technology				
	EC2508	ii) Signals and Systems				
	EE2506	iii) Basic Electrical Engineering				
10	IT2504	<b>Optional Elective - II (MOOCs)</b> Students 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	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
<b>Total</b>			<b>21</b>	<b>3</b>	<b>8</b>	<b>22</b>
9		<b>Optional Elective - III</b>	-	-	-	3
	IT2508	i) Object Oriented Programming through C++				
	EC2522	ii) Data Communication				
	CE2549	iii) Building Information Modelling				
10	IT2509	<b>Optional Elective - IV (MOOCs)</b> 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 Maining	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
<b>Total</b>			<b>22</b>	<b>2</b>	<b>6</b>	<b>21</b>
8		<b>Optional Elective - V</b>	-	-	-	3
	IT2514	i) Secure Web Technologies				
	IT2515	ii) Management Information Systems				
	ME2544	iii) Robotics				
9	IT2516	<b>Optional Elective - VI (MOOCs)</b> Students shall opt from the list of MOOCs given by the Department)	-	-	-	2

\* Integrated Course with Theory and Laboratory

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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	
		<b>Professional Elective - I</b>	4	-	-	3
	CT2521	i) Artificial Intelligence				
	EC2512	ii) Embedded System Design				
	CT2514	iii) Computer Graphics				
	CT2522	iv) Advanced Data Structures				
		<b>Professional Elective - II</b>	4	-	-	3
	IT2511	i) Soft Computing Techniques				
	IT2512	ii) Real Time Systems				
	CT2530	iii) Image Processing				
	CT2532	iv) Agile Software Development Process				
		<b>Professional Elective - III</b>	4	-	-	3
	IT2517	i) Machine Learning and Pattern Recognition				
	IT2518	ii) Distributed Operating Systems				
	CT2526	iii) Human Computer Interaction				
	CT2523	iv) Software Testing Methodologies				
		<b>Professional Elective - IV</b>	4	-	-	3
	IT2519	i) Business Intelligence				
	CT2536	ii) Mobile Computing				
	IT2520	iii) Multimedia Tools				
	CT2533	iv) Cryptography and Network Security				
		<b>Professional Elective - V</b>	4	-	-	3
	IT2525	i) Steganography and Biometrics				
	IT2526	ii) Parallel Computing				
	CT2524	iii) Virtual and Augmented Reality				
	IT2527	iv) E-Commerce				
		<b>Professional Elective - VI</b>	4	-	-	3
	CT2535	i) Internet of Things				
	CT2540	ii) Cloud Computing				
	CT2541	iii) Blockchain Technologies				
	IT2528	iv) Design Patterns				

L : Lecture      T : Tutorial      P : Practical

#### IV Year - I Semester

Sl.No	Subject Cods	Name of the Course / Laboratory	No.of Periods per week		No.of Credits
			L	P	
1	BA1502	Managerial Economics and Financial Analysis	3+1*	-	3
2	CE1539	Estimating, Costing and Valuation	3+1*	-	3
3	CE1540	<b>Elective – II</b> Finite Element Method	3+1*	-	3
4	CE1541	Advanced Structural Analysis			
5	CE1542	Advanced Environmental Engineering			
6	CE1543	Design & Drawing of Irrigation Structures			
7	CE1544	<b>Elective – III</b> Design of Industrial Structures	3+1*	-	3
8	CE1545	Air Pollution & Its Control			
9	CE1546	Earthquake Resistant Design			
10	CE1547	Architecture & Town Planning			
11		<b>Open Elective – III</b> (see the list of Open Electives)	3+1*	-	3
12	CE1549	Structural Engineering Lab	-	3	2
13	CE1550	Transportation Engineering Lab	-	3	2
14	CE1551	Computer Applications in Civil Engineering Lab	-	3	2
<b>Total</b>			<b>20</b>	<b>9</b>	<b>21</b>

#### IV Year - II Semester

Sl.No	Subject Cods	Name of the Course / Laboratory	No.of Periods per week		No.of Credits
			L	P	
1	CE1552	<b>Elective – IV</b> Advanced Concrete Structures	3+1*	-	3
2	CE1553	Environmental Impact, Assessment & Management			
3	CE1554	Soil Dynamics & Machine Foundations			
4	CE1555	Docks & Harbour Engineering			
5	CE1556	<b>Elective – V</b> Pavement Analysis & Design	3+1*	-	3
6	CE1557	Industrial Waste Management			
7	CE1558	Ground Water Development & Management			
8	CE1559	Repair and Rehabilitation of Structures			
9		<b>Self Study Course</b> (see the list of Self Study Courses)			2
10	CE1562	Industrial / Practical Training	-	-	4
11	CE1563	Project Work	-	9	9
<b>Total</b>			<b>20</b>	<b>9</b>	<b>21</b>

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### Open Elective - I

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of Periods per week		No.of. Credits
				L	P	
1	CE1522	Remote Sensing and GIS Techniques	CE	3+1*	-	3
2	CE1523	Elements of Civil Engineering (other than CE)	CE	3+1*	-	3
3	EE1522	Modeling and Simulation of Engineering Systems	EEE	3+1*	-	3
4	ME1525	Renewable Energy Sources	ME	3+1*	-	3
5	ME1526	Elements of Mechanical Engineering (other than ME)	ME	3+1*	-	3
6	CS1507	Computer Networks (other than CSE & IT)	CSE	3+1*	-	3
7	CT1506	Object Oriented Programming (other than CSE & IT)	CSE	2+1*	-	3
8	CS1501	Data Structures Using C (other than EEE,ECE,CSE&IT)	CSE	2+1*	-	3
9	CS1508	Cyber Laws	CSE	3+1*	-	3
10	IT1505	Open Source Software	IT	3+1*	-	3
11	IT1506	Fundamentals of Data Base Management Systems (other than CSE & IT)	IT	3+1*	-	3
12	MA1507	Fuzzy Mathematics	Maths	3+1*	-	3

  
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## Open Elective - II

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of Periods per week		No.of. Credits
				L	P	
1	CE1534	Disaster Management Solid Waste Management (other than CE)	CE	3+1*	-	3
2	CE1535		CE	3+1*	-	3
3	EE1531	Energy Audit, Conservation and Management	EEE	3+1*	-	3
4	ME1535	Material Science (other than ME) Automotive Electronics Introduction to MP&MC(other than EEE, ECE, CSE & IT)	ME	3+1*	-	3
5	EC1540		ECE	3+1*	-	3
6	EC1541		ECE	3+1*	-	3
7	CT1525	Cloud Computing (other than CSE & IT)	CSE	3+1*	-	3
8	CS1511	Web Technologies(other than CSE & IT)	CSE	2+1*	-	3
9	CS1513	Virtual Reality	CSE	3+1*	-	3
10	IT1510	Scripting Languages Big Data (other than CSE & IT)	IT	3+1*	-	3
11	IT1511		IT	3+1*	-	3
12	MA1509	Multi-variate analysis and Special Functions	Maths	3+1*	-	3

  
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### Open Elective - III

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of Periods per week		No.of. Credits
				L	P	
1	CE1548	Building Services (other than CE)	CE	3+1*	-	3
2	EE1542	Modern Optimization Techniques	EEE	3+1*	-	3
3	EE1543	Electrical Power Utilization (other than EEE)	EEE	3+1*	-	3
4	ME1542	Robotics (other than ME)	ME	3+1*	-	3
5	EC1554	Assistive Technologies	ECE	3+1*	-	3
6	EC1555	Introduction to Embedded Systems (other than ECE, CSE & IT)	ECE	3+1*	-	3
7	CS1519	Social Networks	CSE	3+1*	-	3
8	CS1520	Mobile Application Development (other than CSE & IT)	CSE	3+1*	-	3
9	CS1521	Real-Time Systems	CSE	3+1*	-	3
10	IT1520	Network Management Systems	IT	3+1*	-	3
11	IT1521	Fundamentals of E-Commerce (other than CSE & IT)	IT	3+1*	-	3
12	MA1510	Statistical Methods using R Software	Maths	3+1*	-	3


  
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## Self Study Courses

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of. Credits
1	CE1560	Global Positioning Systems	CE	2
2	CE1561	Interior Design	CE	2
3	EE1553	Electrical Safety Management	EEE	2
4	ME1560	Green Engineering	ME	2
5	ME1561	Managing Innovation & Entrepreneurship	ME	2
6	EC1566	Internet of Things	ECE	2
7	EC1567	Consumer Electronics	ECE	2
8	CS1531	e-Waste Management	CSE	2
9	CS1532	Management Information Systems	CSE	2
10	IT1528	Information & Communication Technology	IT	2
11	BA1503	Organizational Behaviour	MBA	2
12		MOOCs	--	2

  
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IV Year - I Semester

Sl.No	Subject Cods	Name of the Course / Laboratory	No.of Periods per week		No.of Credits
			L	P	
1	EE1534	Power System Analysis	3+1*	-	3
2	EE1535	Utilization of Electrical Energy	3+1*	-	3
3	EE1536	Core Elective – II Electrical Distribution Systems	3+1*	-	3
4	EE1537	HVDC Transmission Systems			
5	EE1534	VLSI Design			
6	EE1538	Special Electrical Machines			
7	EE1539	Core Elective – III Electrical Machine Design	3+1*	-	3
8	EE1540	Programmable Logic Controller			
9	CS1505	Computer Organization & Architecture			
10	EE1541	Flexible AC Transmission System			
11		Open Elective - III (see the list of Open Electives)	3+1*	-	3
12	EC1512	Microprocessors and Microcontrollers Lab	-	3	2
13	EE1544	Electrical Systems Simulation Lab	-	3	2
14	EE1545	Power Systems Lab		3	2
<b>Total</b>			<b>20</b>	<b>9</b>	<b>21</b>

IV Year - II Semester

Sl.No	Subject Cods	Name of the Course / Laboratory	No.of Periods per week		No.of Credits
			L	P	
1	EE1546	Elective – IV Electrical Costing & Estimation	3+1*	-	3
2	EE1547	Modeling and Analysis of Electrical Machines			
3	EE1548	High Voltage Engineering			
4	EC1533	Digital Signal Processing			
5	EE1549	Elective – V Digital Control Systems	3+1*	-	3
6	EE1550	AI Techniques			
7	EE1551	EHV AC/DC Transmission Systems			
8	EE1552	Power Plant Instrumentation	-	-	2
9		Self Study Course (see the list of Self Study Courses)			
10	EE1554	Industrial / Practical Training	-	-	4
11	EE1555	Project Work	-	9	9
<b>Total</b>			<b>8</b>	<b>9</b>	<b>21</b>



  
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## Open Elective - I

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of Periods per week		No.of. Credits
				L	P	
1	CE1522	Remote Sensing and GIS Techniques	CE	3+1*	-	3
2	CE1523	Elements of Civil Engineering (other than CE)	CE	3+1*	-	3
3	EE1522	Modeling and Simulation of Engineering Systems	EEE	3+1*	-	3
4	ME1525	Renewable Energy Sources	ME	3+1*	-	3
5	ME1526	Elements of Mechanical Engineering (other than ME)	ME	3+1*	-	3
6	CS1507	Computer Networks (other than CSE & IT)	CSE	3+1*	-	3
7	CT1506	Object Oriented Programming (other than CSE & IT)	CSE	2+1*	-	3
8	CS1501	Data Structures Using C (other than EEE,ECE,CSE&IT)	CSE	2+1*	-	3
9	CS1508	Cyber Laws	CSE	3+1*	-	3
10	IT1505	Open Source Software	IT	3+1*	-	3
11	IT1506	Fundamentals of Data Base Management Systems (other than CSE & IT)	IT	3+1*	-	3
12	MA1507	Fuzzy Mathematics	Maths	3+1*	-	3

  
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## Open Elective - II

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of Periods per week		No.of. Credits
				L	P	
1	CE1534	Disaster Management Solid Waste Management (other than CE)	CE	3+1*	-	3
2	CE1535		CE	3+1*	-	3
3	EE1531	Energy Audit, Conservation and Management	EEE	3+1*	-	3
4	ME1535	Material Science (other than ME) Automotive Electronics Introduction to MP&MC(other than EEE, ECE, CSE & IT)	ME	3+1*	-	3
5	EC1540		ECE	3+1*	-	3
6	EC1541		ECE	3+1*	-	3
7	CT1525	Cloud Computing (other than CSE & IT)	CSE	3+1*	-	3
8	CS1511	Web Technologies(other than CSE & IT)	CSE	2+1*	-	3
9	CS1513	Virtual Reality	CSE	3+1*	-	3
10	IT1510	Scripting Languages Big Data (other than CSE & IT) Multi-variate analysis and Special Functions	IT	3+1*	-	3
11	IT1511		IT	3+1*	-	3
12	MA1509		Maths	3+1*	-	3



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Gudlavalleru - 521 356, Krishna District. A.P.

### Open Elective - III

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of Periods per week		No.of. Credits
				L	P	
1	CE1548	Building Services (other than CE) Modern Optimization Techniques	CE	3+1*	-	3
2	EE1542		EEE	3+1*	-	3
3	EE1543	Electrical Power Utilization (other than EEE)	EEE	3+1*	-	3
4	ME1542	Robotics (other than ME) Assistive Technologies Introduction to Embedded Systems (other than ECE, CSE & IT)	ME	3+1*	-	3
5	EC1554		ECE	3+1*	-	3
6	EC1555		ECE	3+1*	-	3
7	CS1519	Social Networks	CSE	3+1*	-	3
8	CS1520	Mobile Application Development (other than CSE & IT)	CSE	3+1*	-	3
9	CS1521	Real-Time Systems Network Management Systems	CSE	3+1*	-	3
10	IT1520		IT	3+1*	-	3
11	IT1521	Fundamentals of E-Commerce (other than CSE & IT)	IT	3+1*	-	3
12	MA1510	Statistical Methods using R Software	Maths	3+1*	-	3

  
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## Self Study Courses

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of. Credits
1	CE1560	Global Positioning Systems	CE	2
2	CE1561	Interior Design	CE	2
3	EE1553	Electrical Safety Management	EEE	2
4	ME1560	Green Engineering	ME	2
5	ME1561	Managing Innovation & Entrepreneurship	ME	2
6	EC1566	Internet of Things	ECE	2
7	EC1567	Consumer Electronics	ECE	2
8	CS1531	e-Waste Management	CSE	2
9	CS1532	Management Information Systems	CSE	2
10	IT1528	Information & Communication Technology	IT	2
11	BA1503	Organizational Behaviour	MBA	2
12		MOOCs	--	2


  
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#### IV Year - I Semester

Sl.No	Subject Cods	Name of the Course / Laboratory	No.of Periods per week		No.of Credits
			L	P	
1	ME1539	CAD / CAM	3+1*	-	3
2	ME1540	Heat Transfer	3+1*	-	3
3	ME1541	<b>Elective – II</b> Computational Fluid Dynamics	3+1*	-	3
4	ME1542	Robotics			
5	ME1543	Interactive Computer Graphics			
6	ME1544	Mechanical Vibrations			
7	ME1545	<b>Elective – III</b> Production Planning and Control	3+1*	-	3
8	ME1546	Tribology			
9	ME1547	Refrigeration & Air Conditioning			
10	ME1548	Fracture Mechanics			
11		Open Elective – III (see the list of Open Electives)	3+1*	-	3
12	ME1549	CAD / CAM Lab	-	3	2
13	ME1550	Heat Transfer Lab	-	3	2
14	ME1551	Computational Methods for Engineers Lab	-	3	2
<b>Total</b>			<b>20</b>	<b>9</b>	<b>21</b>

#### IV Year - II Semester

Sl.No	Subject Cods	Name of the Course / Laboratory	No.of Periods per week		No.of Credits
			L	P	
1	ME1552	<b>Elective – IV</b> Condition Monitoring	3+1*	-	3
2	ME1553	Rapid Prototyping			
3	ME1554	Power Plant Engineering			
4	ME1555	Design for Manufacturing & Assembly			
5	ME1556	<b>Elective – V</b> Nanotechnology	3+1*	-	3
6	ME1557	Gas Dynamics & Jet Propulsion			
7	ME1558	Automation in Manufacturing			
8	ME1559	Supply Chain Management			
9		<b>Self Study Course</b> (see the list of Self Study Courses)			2
10	ME1562	Industrial / Practical Training	-	-	4
11	ME1563	Project Work	-	9	9
<b>Total</b>			<b>20</b>	<b>9</b>	<b>21</b>



  
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### Open Elective - I

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of Periods per week		No.of. Credits
				L	P	
1	CE1522	Remote Sensing and GIS Techniques	CE	3+1*	-	3
2	CE1523	Elements of Civil Engineering (other than CE)	CE	3+1*	-	3
3	EE1522	Modeling and Simulation of Engineering Systems	EEE	3+1*	-	3
4	ME1525	Renewable Energy Sources	ME	3+1*	-	3
5	ME1526	Elements of Mechanical Engineering (other than ME)	ME	3+1*	-	3
6	CS1507	Computer Networks (other than CSE & IT)	CSE	3+1*	-	3
7	CT1506	Object Oriented Programming (other than CSE & IT)	CSE	2+1*	-	3
8	CS1501	Data Structures Using C (other than EEE,ECE,CSE&IT)	CSE	2+1*	-	3
9	CS1508	Cyber Laws	CSE	3+1*	-	3
10	IT1505	Open Source Software	IT	3+1*	-	3
11	IT1506	Fundamentals of Data Base Management Systems (other than CSE & IT)	IT	3+1*	-	3
12	MA1507	Fuzzy Mathematics	Maths	3+1*	-	3



  
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## Open Elective - II

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of Periods per week		No.of. Credits
				L	P	
1	CE1534	Disaster Management Solid Waste Management (other than CE)	CE	3+1*	-	3
2	CE1535		CE	3+1*	-	3
3	EE1531	Energy Audit, Conservation and Management	EEE	3+1*	-	3
4	ME1535	Material Science (other than ME) Automotive Electronics Introduction to MP&MC (other than EEE, ECE, CSE & IT)	ME	3+1*	-	3
5	EC1540		ECE	3+1*	-	3
6	EC1541		ECE	3+1*	-	3
7	CT1525	Cloud Computing (other than CSE & IT)	CSE	3+1*	-	3
8	CS1511	Web Technologies (other than CSE & IT)	CSE	2+1*	-	3
9	CS1513	Virtual Reality	CSE	3+1*	-	3
10	IT1510	Scripting Languages Big Data (other than CSE & IT)	IT	3+1*	-	3
11	IT1511		IT	3+1*	-	3
12	MA1509	Multi-variate analysis and Special Functions	Maths	3+1*	-	3

  
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### Open Elective - III

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of Periods per week		No.of. Credits
				L	P	
1	CE1548	Building Services (other than CE) Modern Optimization Techniques	CE	3+1*	-	3
2	EE1542		EEE	3+1*	-	3
3	EE1543	Electrical Power Utilization (other than EEE)	EEE	3+1*	-	3
4	ME1542	Robotics (other than ME) Assistive Technologies Introduction to Embedded Systems(other than ECE, CSE & IT)	ME	3+1*	-	3
5	EC1554		ECE	3+1*	-	3
6	EC1555		ECE	3+1*	-	3
7	CS1519	Social Networks	CSE	3+1*	-	3
8	CS1520	Mobile Application Development (other than CSE & IT)	CSE	3+1*	-	3
9	CS1521	Real-Time Systems Network Management Systems	CSE	3+1*	-	3
10	IT1520		IT	3+1*	-	3
11	IT1521	Fundamentals of E-Commerce (other than CSE & IT)	IT	3+1*	-	3
12	MA1510	Statistical Methods using R Software	Maths	3+1*	-	3

  
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## Self Study Courses

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of. Credits
1	CE1560	Global Positioning Systems	CE	2
2	CE1561	Interior Design	CE	2
3	EE1553	Electrical Safety Management	EEE	2
4	ME1560	Green Engineering	ME	2
5	ME1561	Managing Innovation & Entrepreneurship	ME	2
6	EC1566	Internet of Things	ECE	2
7	EC1567	Consumer Electronics	ECE	2
8	CS1531	e-Waste Management	CSE	2
9	CS1532	Management Information Systems	CSE	2
10	IT1528	Information & Communication Technology	IT	2
11	BA1503	Organizational Behaviour	MBA	2
12		MOOCs	--	2

  
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IV Year - I Semester

Sl.No	Subject Cods	Name of the Course / Laboratory	No.of Periods per week		No.of Credits
			L	P	
1	EC1545	Electronic Measurements and Instrumentation	3+1*	-	3
2	EC1546	Microcontrollers and Embedded Systems	3+1*	-	3
<b>Core Elective – II</b>					
3	EC1547	Cellular and Mobile Communications	3+1*	-	3
4	EC1548	Sensors and Instrumentation			
5	CS1524	Advanced Computer Architecture			
6	EC1549	DSP Architecture and Applications			
<b>Core Elective – III</b>					
7	EC1550	FPGA Design	3+1*	-	3
8	EC1551	Digital TV Engineering			
9	EC1552	Digital Image Processing			
10	EC1553	Embedded Real Time Operating Systems			
11		<b>Open Elective - III</b> (see the list of Open Electives)	3+1*	-	3
12	EC1556	Digital Signal Processing Lab	-	3	2
13	EC1557	Microwave and Optical Communications Lab	-	3	2
14	EC1558	VLSI and Embedded Systems Lab	-	3	2
<b>Total</b>			<b>20</b>	<b>9</b>	<b>21</b>

IV Year - II Semester

Sl.No	Subject	Name of the Course / Laboratory	No.of Periods per week		No.of Credits
			L	P	
<b>Elective – IV</b>					
1	EC1559	Testing and Verification of VLSI Circuits	3+1*	-	3
2	EC1560	Speech Processing			
3	EC1561	Satellite Communications			
4	EC1562	Wireless Sensor Networks			
<b>Elective – V</b>					
5	EC1563	Lower Power VLSI Design	3+1*	-	3
6	EC1564	Radar Engineering			
7	EC1565	Software Engineering			
8	EC1566	Biomedical Instrumentation			
9		<b>Self Study Course</b> (see the list of Self Study Courses)	-	-	2
10	EC1568	Industrial / Practical Training	-	-	4
11	EC1569	Project Work	-	9	9
<b>Total</b>			<b>8</b>	<b>9</b>	<b>21</b>

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## Open Elective - I

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No. of Periods per week		No. of Credits
				L	P	
1	CE1522	Remote Sensing and GIS Techniques	CE	3+1*	-	3
2	CE1523	Elements of Civil Engineering (other than CE)	CE	3+1*	-	3
3	EE1522	Modeling and Simulation of Engineering Systems	EEE	3+1*	-	3
4	ME1525	Renewable Energy Sources Elements of Mechanical Engineering (other than ME)	ME	3+1*	-	3
5	ME1526		ME	3+1*	-	3
6	CS1507	Computer Networks (other than CSE & IT)	CSE	3+1*	-	3
7	CT1506	Object Oriented Programming (other than CSE & IT)	CSE	2+1*	-	3
8	CS1501	Data Structures Using C (other than EEE, ECE, CSE & IT)	CSE	2+1*	-	3
9	CS1508	Cyber Laws	CSE	3+1*	-	3
10	IT1505	Open Source Software Fundamentals of Data Base Management Systems (other than CSE & IT)	IT	3+1*	-	3
11	IT1506		IT	3+1*	-	3
12	MA1507	Fuzzy Mathematics	Maths	3+1*	-	3

  
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## Open Elective - II

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No. of Periods per week		No. of Credits
				L	P	
1	CE1534	Disaster Management Solid Waste Management (other than CE)	CE	3+1*	-	3
2	CE1535		CE	3+1*	-	3
3	EE1531	Energy Audit, Conservation and Management	EEE	3+1*	-	3
4	ME1535	Material Science (other than ME) Automotive Electronics Introduction to MP&MC (other than EEE, ECE, CSE & IT)	ME	3+1*	-	3
5	EC1540		ECE	3+1*	-	3
6	EC1541		ECE	3+1*	-	3
7	CT1525	Cloud Computing (other than CSE & IT)	CSE	3+1*	-	3
8	CS1511	Web Technologies (other than CSE & IT)	CSE	2+1*	-	3
9	CS1513	Virtual Reality Scripting	CSE	3+1*	-	3
10	IT1510	Languages Big Data (other than CSE & IT) Multi-variate analysis and Special Functions	IT	3+1*	-	3
11	IT1511		IT	3+1*	-	3
12	MA1509		Maths	3+1*	-	3


  
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### Open Elective - III

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No. of Periods per week		No. of Credits
				L	P	
1	CE1548	Building Services (other than CE) Modern Optimization Techniques	CE	3+1*	-	3
2	EE1542		EEE	3+1*	-	3
3	EE1543	Electrical Power Utilization (other than EEE)	EEE	3+1*	-	3
4	ME1542	Robotics (other than ME) Assistive Technologies Introduction to Embedded Systems (other than ECE, CSE & IT)	ME	3+1*	-	3
5	EC1554		ECE	3+1*	-	3
6	EC1555		ECE	3+1*	-	3
7	CS1519	Social Networks	CSE	3+1*	-	3
8	CS1520	Mobile Application Development (other than CSE & IT)	CSE	3+1*	-	3
9	CS1521	Real-Time Systems Network Management Systems	CSE	3+1*	-	3
10	IT1520		IT	3+1*	-	3
11	IT1521	Fundamentals of E-Commerce (other than CSE & IT)	IT	3+1*	-	3
12	MA1510	Statistical Methods using R Software	Maths	3+1*	-	3

  
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## Self Study Courses

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of. Credits
1	CE1560	Global Positioning Systems	CE	2
2	CE1561	Interior Design	CE	2
3	EE1553	Electrical Safety Management	EEE	2
4	ME1560	Green Engineering	ME	2
5	ME1561	Managing Innovation & Entrepreneurship	ME	2
6	EC1566	Internet of Things	ECE	2
7	EC1567	Consumer Electronics	ECE	2
8	CS1531	e-Waste Management	CSE	2
9	CS1532	Management Information Systems	CSE	2
10	IT1528	Information & Communication Technology	IT	2
11	BA1503	Organizational Behaviour	MBA	2
12		MOOCs	--	2

  
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### IV Year - I Semester

Sl.No	Subject Cods	Name of the Course / Laboratory	No.of Periods per week		No.of Credits
			L	P	
1	CS1522	Information Security			
2	CS1520	Mobile Application Development	3+1*	-	3
		<b>Core Elective – II</b>			
3	CT1519	Digital Image Processing			
4	CS1524	Advanced Computer Architecture			
5	CS1525	Embedded Systems			
6	CS1526	Bio-Informatics	3+1*	-	3
		<b>Core Elective – III</b>			
7	CS1527	Distributed Systems			
8	CS1528	Parallel Computing			
9	CT1520	Software Testing Methodologies			
10	CS1529	Web Services	3+1*	-	3
11		<b>Open Elective - III</b> (see the list of Open Electives)	3+1*	-	
12	CS1523	Information Security Lab		-	3
13	CT1521	Mobile Application Development Lab	-	3	2
14	CT1522	Multi Media Application Development Lab	-	3	2
		<b>Total</b>	<b>20</b>	<b>9</b>	<b>21</b>


### IV Year - II Semester

Sl.No	Subject Cods	Name of the Course / Laboratory	No.of Periods per week		No.of Credits
			L	P	
		<b>Elective – IV</b>			
1	CT1524	Distributed Data Bases			
2	CT1525	Software Project Management			
3	CS1533	Semantic Web			
4	CT1519	Big Data	3+1*	-	3
		<b>Elective – V</b>			
1	CS1534	Machine Learning			
2	CT1520	Cloud Computing			
3	CT1526	Pattern Recognition			
4	CS1535	Wireless Networks	3+1*	-	3
5		<b>Self Study Course</b> (see the list of Self Study Courses)	-	-	
6	CS1536	Industrial / Practical Training	-	-	2
7	CS1537	Project Work	-	-	4
		<b>Total</b>	<b>8</b>	<b>9</b>	<b>21</b>

## Open Elective - I

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No. of Periods per week		No. of Credits
				L	P	
1	CE1522	Remote Sensing and GIS Techniques	CE	3+1*	-	3
2	CE1523	Elements of Civil Engineering (other than CE)	CE	3+1*	-	3
3	EE1522	Modeling and Simulation of Engineering Systems	EEE	3+1*	-	3
4	ME1525	Renewable Energy Sources Elements of Mechanical Engineering (other than ME)	ME	3+1*	-	3
5	ME1526		ME	3+1*	-	3
6	CS1507	Computer Networks (other than CSE & IT)	CSE	3+1*	-	3
7	CT1506	Object Oriented Programming (other than CSE & IT)	CSE	2+1*	-	3
8	CS1501	Data Structures Using C (other than EEE, ECE, CSE & IT)	CSE	2+1*	-	3
9	CS1508	Cyber Laws	CSE	3+1*	-	3
10	IT1505	Open Source Software Fundamentals of Data Base Management Systems (other than CSE & IT)	IT	3+1*	-	3
11	IT1506		IT	3+1*	-	3
12	MA1507	Fuzzy Mathematics	Maths	3+1*	-	3

  
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Gudlavalleru - 521 330, Andhra District. A.P.

## Open Elective - II

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No. of Periods per week		No. of Credits
				L	P	
1	CE1534	Disaster Management Solid Waste Management (other than CE)	CE	3+1*	-	3
2	CE1535		CE	3+1*	-	3
3	EE1531	Energy Audit, Conservation and Management	EEE	3+1*	-	3
4	ME1535	Material Science (other than ME) Automotive Electronics Introduction to MP&MC (other than EEE, ECE, CSE & IT)	ME	3+1*	-	3
5	EC1540		ECE	3+1*	-	3
6	EC1541		ECE	3+1*	-	3
7	CT1525	Cloud Computing (other than CSE & IT)	CSE	3+1*	-	3
8	CS1511	Web Technologies (other than CSE & IT)	CSE	2+1*	-	3
9	CS1513	Virtual Reality	CSE	3+1*	-	3
10	IT1510	Scripting Languages Big Data (other than CSE & IT) Multi-variate analysis and Special Functions	IT	3+1*	-	3
11	IT1511		IT	3+1*	-	3
12	MA1509		Maths	3+1*	-	3

  
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### Open Elective - III

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No. of Periods per week		No. of Credits
				L	P	
1	CE1548	Building Services (other than CE)	CE	3+1*	-	3
2	EE1542	Modern Optimization Techniques	EEE	3+1*	-	3
3	EE1543	Electrical Power Utilization (other than EEE)	EEE	3+1*	-	3
4	ME1542	Robotics (other than ME)	ME	3+1*	-	3
5	EC1554	Assistive Technologies	ECE	3+1*	-	3
6	EC1555	Introduction to Embedded Systems (other than ECE, CSE & IT)	ECE	3+1*	-	3
7	CS1519	Social Networks	CSE	3+1*	-	3
8	CS1520	Mobile Application Development (other than CSE & IT)	CSE	3+1*	-	3
9	CS1521	Real-Time Systems	CSE	3+1*	-	3
10	IT1520	Network Management Systems	IT	3+1*	-	3
11	IT1521	Fundamentals of E-Commerce (other than CSE & IT)	IT	3+1*	-	3
12	MA1510	Statistical Methods using R Software	Maths	3+1*	-	3

  
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## Self Study Courses

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of. Credits
1	CE1560	Global Positioning	CE	2
2	CE1561	Systems Interior Design		
3	EE1553	Electrical Safety	EEE	2
4	ME1560	Management Green Engineering		
5	ME1561	Managing Innovation & Entrepreneurship	ME	2
6	EC1566	Internet of Things		
7	EC1567	Consumer Electronics	ECE	2
8	CS1531	e-Waste Management		
9	CS1532	Management Information Systems	CSE	2
10	IT1528	Information & Communication Technology		
11	BA1503	Organizational Behaviour	MBA	2
12		MOOCs		

  
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Gudlavalleru - 521 338, Krishna District. A.P.

IV Year - I Semester

Sl.No	Subject Cods	Name of the Course / Laboratory	No. of Periods per week		No. of Credits
			L	P	
1	CT1517	Data Warehousing and Data Mining	3+1*	-	3
2	IT1522	Multimedia Application Development	3+1*	-	3
3	CT1523	Distributed Databases	3+1*	-	3
4	CT1518	Human Computer Interaction			
5	IT1523	Bio-Metrics			
6	CT1520	Software Testing Methodologies			
7	IT1524	Information Retrieval Systems	3+1*	-	3
8	CT1519	Digital Image Processing			
9	IT1525	Mobile Computing			
10	CT1524	Software Project Management			
11		Open Elective - III (see the list of Open Electives)	3+1*	-	3
12	CT1521	Mobile Application Lab	-	3	2
13	CT1522	Multimedia Application Development Lab	-	3	2
14	IT1526	Free and Open Source Software Lab	-	3	2
<b>Total</b>			<b>20</b>	<b>9</b>	<b>21</b>

IV Year - II Semester

Sl.No	Subject Cods	Name of the Course / Laboratory	No. of Periods per week		No. of Credits
			L	P	
1	IT1529	E-Commerce	3+1*	-	3
2	CT1526	Pattern Recognition			
3	CT1520	Cloud Computing			
4	IT1530	Business Intelligence			
1	CT1519	Big Data	3+1*	-	3
2	IT1531	Soft Computing			
3	IT1532	Computer Forensics			
4	IT1533	Software Quality Assurance			
5		Self Study Course (see the list of Self Study Courses)	-	-	2
6	IT1534	Industrial / Practical Training	-	-	4
7	IT1535	Project Work	-	9	9
<b>Total</b>			<b>8</b>	<b>9</b>	<b>21</b>

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### Open Elective - I

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of Periods per week		No.of. Credits
				L	P	
1	CE1522	Remote Sensing and GIS Techniques	CE	3+1*	-	3
2	CE1523	Elements of Civil Engineering (other than CE)	CE	3+1*	-	3
3	EE1522	Modeling and Simulation of Engineering Systems	EEE	3+1*	-	3
4	ME1525	Renewable Energy Sources	ME	3+1*	-	3
5	ME1526	Elements of Mechanical Engineering (other than ME)	ME	3+1*	-	3
6	CS1507	Computer Networks (other than CSE & IT)	CSE	3+1*	-	3
7	CT1506	Object Oriented Programming (other than CSE & IT)	CSE	2+1*	-	3
8	CS1501	Data Structures Using C (other than EEE,ECE,CSE&IT)	CSE	2+1*	-	3
9	CS1508	Cyber Laws	CSE	3+1*	-	3
10	IT1505	Open Source Software	IT	3+1*	-	3
11	IT1506	Fundamentals of Data Base Management Systems (other than CSE & IT)	IT	3+1*	-	3
12	MA1507	Fuzzy Mathematics	Maths	3+1*	-	3

  
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## Open Elective - II

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No. of Periods per week		No. of Credits
				L	P	
1	CE1534	Disaster Management	CE	3+1*	-	3
2	CE1535	Solid Waste Management (other than CE)	CE	3+1*	-	3
3	EE1531	Energy Audit, Conservation and Management	EEE	3+1*	-	3
4	ME1535	Material Science (other than ME)	ME	3+1*	-	3
5	EC1540	Automotive Electronics	ECE	3+1*	-	3
6	EC1541	Introduction to MP&MC (other than EEE, ECE, CSE & IT)	ECE	3+1*	-	3
7	CT1525	Cloud Computing (other than CSE & IT)	CSE	3+1*	-	3
8	CS1511	Web Technologies (other than CSE & IT)	CSE	2+1*	-	3
9	CS1513	Virtual Reality	CSE	3+1*	-	3
10	IT1510	Scripting Languages	IT	3+1*	-	3
11	IT1511	Big Data (other than CSE & IT)	IT	3+1*	-	3
12	MA1509	Multi-variate analysis and Special Functions	Maths	3+1*	-	3

  
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### Open Elective - III

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No. of Periods per week		No. of Credits
				L	P	
1	CE1548	Building Services (other than CE)	CE	3+1*	-	3
2	EE1542	Modern Optimization Techniques	EEE	3+1*	-	3
3	EE1543	Electrical Power Utilization (other than EEE)	EEE	3+1*	-	3
4	ME1542	Robotics (other than ME)	ME	3+1*	-	3
5	EC1554	Assistive Technologies	ECE	3+1*	-	3
6	EC1555	Introduction to Embedded Systems (other than ECE, CSE & IT)	ECE	3+1*	-	3
7	CS1519	Social Networks	CSE	3+1*	-	3
8	CS1520	Mobile Application Development (other than CSE & IT)	CSE	3+1*	-	3
9	CS1521	Real-Time Systems	CSE	3+1*	-	3
10	IT1520	Network Management Systems	IT	3+1*	-	3
11	IT1521	Fundamentals of E-Commerce (other than CSE & IT)	IT	3+1*	-	3
12	MA1510	Statistical Methods using R Software	Maths	3+1*	-	3



  
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## Self Study Courses

Sl. No.	Subject Cods	Title of the Subject	Department Offering the Subject	No.of. Credits
1	CE1560	Global Positioning		
2	CE1561	Systems Interior Design	CE	2
3	EE1553	Electrical Safety	CE	2
4	ME1560	Management	EEE	2
		Green Engineering	ME	2
5	ME1561	Managing Innovation & Entrepreneurship		2
6	EC1566	Internet of Things	ME	
7	EC1567	Consumer Electronics	ECE	2
8	CS1531	e-Waste Management	ECE	2
9	CS1532	Management Information Systems	CSE	2
10	IT1528	Information & Communication Technology	CSE	2
11	BA1503	Organizational Behaviour	IT	2
12		MOOCs	MBA	2
			--	2

  
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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	MA2901	Computational Methods in Engineering	4	-	-	3
2	CE2901	Theory of Elasticity	4	-	-	3
3	CE2902	Structural Dynamics	4	-	-	3
4	CE2903	Advanced Design of Concrete Structures	4	-	-	3
5	CE2904	Stability of Structures	4	-	-	3
6		Professional Elective - I	4	-	-	3
7	CE2908	Advanced Concrete Technology and Structural Engineering Lab	-	-	4	2
<b>Total</b>			<b>24</b>	<b>-</b>	<b>4</b>	<b>20</b>

### II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	CE2909	Earthquake Resistant Design	4	-	-	3
2	CE2910	Finite Element Analysis	4	-	-	3
3	CE2911	Theory of Plates and Shells	4	-	-	3
4	HS2901	Research Methodologies	4	-	-	3
5		Professional Elective - II	4	-	-	3
6		Professional Elective - III	4	-	-	3
7	CE2918	Computer Applications in Structural Engineering Lab	-	-	4	2
8		Seminar	-	-	-	2
<b>Total</b>			<b>24</b>	<b>-</b>	<b>4</b>	<b>22</b>

L : Lecture

T : Tutorial

P : Practical

M.Tech - Structural Engineering (CE) - R17

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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		Term Paper	-	-	4	2
2		Dissertation (Initiated in third semester)	-	-	-	-
Total			-	-	4	2

### IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Dissertation (Carried out in third & Fourth Semester)	-	-	52	34
Total			-	-	52	34

### Professional Electives:

#### Professional Elective - I

- CE2905 Advanced Concrete Technology
- CE2906 Ground Improvement Techniques
- CE2907 Structural Optimization

#### Professional Elective - II

- CE2912 Advanced Design of Steel Structures
- CE2913 Pre-Stressed Concrete
- CE2914 Fracture Mechanics of Concrete

#### Professional Elective - III

- CE2915 Design of Sub-Structures
- CE2916 Design of Bridge Structures
- CE2917 High Rise Buildings

## 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	MA2902	Linear and Non-Linear Optimization	4	-	-	3
2	EC2901	ARM Architecture and Programming**	3	-	2	3
3	EE2902	Analysis of Power Electronic Converters	4	-	-	3
4	EE2903	Electrical Machine Modeling and Analysis	4	-	-	3
5	EE2904	Modern Control Theory	4	-	-	3
6		Professional Elective - I	4	-	-	3
7	EE2908	Power Electronic System Simulation Lab	-	-	4	2
<b>Total</b>			<b>23</b>	<b>-</b>	<b>6</b>	<b>20</b>

### II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	HS2901	Research Methodology	4	-	-	3
2	EE2911	Advanced Digital Control Systems	4	-	-	3
3	EE2912	Switched Mode Power Converters **	3	-	2	3
4	EE2913	Advanced Electric Drives	4	-	-	3
5		Professional Elective - II	4	-	-	3
6		Professional Elective - III	4	-	-	3
7	EE2919	Power Electronics and Electric Drives Lab	-	-	4	2
8		Seminar	-	-	-	2
<b>Total</b>			<b>23</b>	<b>-</b>	<b>6</b>	<b>22</b>

\*\* Project Based Theory Course

L : Lecture      T : Tutorial      P : Practical

M.Tech - Electrical Engineering (EE) - R17

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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		Term Paper	-	-	4	2
2		Dissertation (Initiated in third semester)	-	-	-	-
Total			-	-	4	2

### IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Dissertation (Carried out in third & Fourth Semester)	-	-	52	34
Total			-	-	52	34

### Professional Electives:

#### Professional Elective - I

- EE2905 Power Semiconductor Devices & Protection
- EE2906 Special Machines and Control
- EE2907 HVDC Transmission Systems

#### Professional Elective - II

- EE2914 Renewable Energy Storage Systems
- EE2915 Application of power Electronics to Power Systems
- EE2916 Custom Power Devices

#### Professional Elective - III

- EC2902 Digital Signal Processing and Applications
- EE2917 AI Techniques
- EE2918 Smart Grids



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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	MA2901	Computational Methods in Egnineering	4	-	-	3
2	ME2901	Advanced Mechanics of Solids	4	-	-	3
3	ME2902	Analysis and Synthesis of Mechanisms	4	-	-	3
4	ME2903	Mechancial Vibrations **	3	-	2	3
5	ME2904	Gear Engineering	4	-	-	3
6		Professional Elective - I	4	-	-	3
7	ME2908	Machine Dynaics Lab	-	-	4	2
<b>Total</b>			<b>23</b>	<b>-</b>	<b>6</b>	<b>20</b>

### II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	HS2901	Research Methodologies	4	-	-	3
2	ME2909	Finite Element Methods **	3	-	2	3
3	ME2910	Design with Advacned Materials	4	-	-	3
4	ME2911	Design for Manufacturing and Assembly	4	-	-	3
5		Professional Elective - II	4	-	-	3
6		Professional Elective - III	4	-	-	3
7	ME2918	Modeling and Analysis Lab	-	-	4	2
8		Seminar	-	-	-	2
<b>Total</b>			<b>23</b>	<b>-</b>	<b>6</b>	<b>22</b>

\*\* Project Based Theory Course

L : Lecture      T : Tutorial      P : Practical

M.Tech - Mahcine Design (ME) - R17

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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		Term Paper	-	-	4	2
2		Dissertation (Initiated in third semester)	-	-	-	-
Total			-	-	4	2

### IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Dissertation (Carried out in third & Fourth Semester)	-	-	52	34
Total			-	-	52	34

### Professional Electives:

#### Professional Elective - I

ME2905 Rotor Dynamics

ME2906 Experimental Stress Analysis

ME2907 Product Design

#### Professional Elective - II

ME2912 Fracture Mechanics

ME2913 Condition Monitoring

ME2914 Rapid Tooling and Prototyping

#### Professional Elective - III

ME2915 Theory of Elasticity

ME2916 Geometric Modeling

ME2917 Tribology



## 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	MA2902	Linear and Non-Linear Optimization Techniques	4	-	-	3
2	EC2903	Principles of Digital Design Using FPGA**	3	-	2	3
3	EC2904	Advanced Digital Signal Processing	4	-	-	3
4	EC2905	Advanced Microcontrollers	4	-	-	3
5	EC2906	Embedded C	4	-	-	3
6		Professional Elective - I	4	-	-	3
7	EC2910	Advanced Digital Design Lab	-	-	4	2
<b>Total</b>			<b>23</b>	<b>-</b>	<b>6</b>	<b>20</b>

### II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	HS2901	Research Methodology	4	-	-	3
2	EC2911	Advanced Embedded Systems **	3	-	2	3
3	EC2912	Principles of CMOS Analog Design	4	-	-	3
4	EC2913	Internet of Things	4	-	-	3
5		Professional Elective - II	4	-	-	3
6		Professional Elective - III	4	-	-	3
7	EC2920	Embedded Systems Lab	-	-	4	2
8		Seminar	-	-	-	2
<b>Total</b>			<b>23</b>	<b>-</b>	<b>6</b>	<b>22</b>

\*\* Project Based Theory Course

L : Lecture      T : Tutorial      P : Practical

### III Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Term Paper	-	-	4	2
2		Dissertation (Initiated in third semester)	-	-	-	-
Total			-	-	4	2

### IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1		Dissertation (Carried out in third & Fourth Semester)	-	-	52	34
Total			-	-	52	34

### Professional Electives:

#### Professional Elective - I

- EC2907 Embedded Networking
- EV2908 Sensors and Actuators
- EE2909 Low Power CMOS Digital Design

#### Professional Elective - II

- EC2914 SoC Design
- EC2915 Embedded Real Time Operating Systems
- EC2916 Embedded System Design

#### Professional Elective - III

- EC2917 Advanced Computer Networks
- EC2918 Hardware Software Co-Design
- EC2919 Wireless Sensor Networks

## COURSE STRUCTURE

### I Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Hours per week			No. of Credits
			L	T	P	
1	MA3902	Linear and Non-Linear Optimization Techniques	3	-	-	3
2	EC3903	Embedded System Design **	3	-	-	3
3	EC3904	Advanced Digital Design	3	-	-	3
4	EC3905	Advanced Microcontrollers	3	-	-	3
5	EC3906	CMOS VLSI circuits	3	-	-	3
6		Professional Elective - I	3	-	-	3
7	EC3911	VLSI Design Lab	-	-	-	3
<b>Total</b>			<b>18</b>	<b>-</b>	<b>4</b>	<b>20</b>

### II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Hours per week			No. of Credits
			L	T	P	
1	HS3901	Research Methodologies	3	-	-	3
2	EC3912	VLSI System Design **	3	-	-	3
3	EC3913	Hardware and Software Co-Design	3	-	-	3
4	EC3914	Internet of Things	3	-	-	3
5		Professional Elective - II	3	-	-	3
6		Professional Elective - III	3	-	-	3
7	EC3923	Internet of Things Lab	-	-	-	3
8	EC3924	Seminar	-	-	4	2
<b>Total</b>			<b>18</b>	<b>-</b>	<b>8</b>	<b>22</b>

\*\* Project Based Theory Course

L : Lecture      T : Tutorial      P : Practical

M.Tech - VLSI Design and Embedded Systems (ECE) - R19

### III Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Hours per week			No. of Credits
			L	T	P	
1	EC3925	Dissertation (Part-A)	-	-	-	-

### IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Hours per week			No. of Credits
			L	T	P	
1	EC3925	Dissertation (Part-B)	-	-	-	28
<b>Total</b>			-	-	-	28

#### Professional Electives:

##### Professional Elective - I

- EC3907 Testing & Testability of VLSI circuits
- EC3908 VLSI Digital Signal Processing
- EC3909 Real Time Operating systems
- EC3910 Embedded Processors

##### Professional Elective - II

- EC3915 ASIC System Design
- EC3916 Advances in VLSI Design
- EC3917 Embedded Computing Architectures
- EC3918 Advanced Computer Networks

##### Professional Elective - III

- EC3919 System-on-Chip Design
- EC3920 VLSI Interconnects
- EC3921 RF VLSI design
- EC3922 Advanced Digital Signal Processing

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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	MA2903	Statistics with R Programming	4	-	-	3
2	CS2901	Advanced Data Structures & Algorithm Analysis	4	-	-	3
3	CS2902	Wireless Networks	4	-	-	3
4	CS2903	Object Oriented Software Engineering	4	-	-	3
5	CS2904	Business Intelligence **	3	-	2	3
6		Professional Elective - I	4	-	-	3
7	CS2908	Advanced Data Structures & Algorithm and R Programming Lab	-	-	4	2
<b>Total</b>			<b>23</b>	<b>-</b>	<b>6</b>	<b>20</b>

### II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	HS2901	Research Methodology	4	-	-	3
2	CS2909	Information Security	3	-	2	3
3	CS2910	Scripting Languages	4	-	-	3
4	CS2911	Data Analytics **	3	-	2	3
5		Professional Elective - II	4	-	-	3
6		Professional Elective - III	4	-	-	3
7	CS2917	Information Security & Scripting Languages Lab	-	-	4	2
8		Seminar	-	-	-	2
<b>Total</b>			<b>23</b>	<b>-</b>	<b>6</b>	<b>22</b>

\*\* Project Based Theory Course

L : Lecture      T : Tutorial      P : Practical

### III Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			per week	L	T	
1		Term Paper	-	-	4	2
2		Dissertation (Initiated in third semester)	-	-	-	-
<b>Total</b>			-	-	<b>4</b>	<b>2</b>

### IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods			No. of Credits
			per week	L	T	
1		Dissertation (Carried out in third & Fourth Semester)	-	-	52	34
<b>Total</b>			-	-	<b>52</b>	<b>34</b>

### Professional Electives:

#### Professional Elective - I

- CS2905 Advanced Computer Architecture
- CS2906 Digital Image Processing
- CS2907 E-Commerce

#### Professional Elective - II

- CS2912 Advanced Operating Systems
- CS2913 Machine Learning
- CS2914 Software Testing Methodologies

#### Professional Elective - III

- CT2901 Cloud Computing
- CS2915 Soft Computing
- CS2916 Internet of Things

## 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	EG2901	Business Communication	4	-	-	3
2	MA2901	Quantitative Analysis for Business Decisions	3	1	-	3
3	BA2901	Perspectives of Management	4	-	-	3
4	BA2902	Managerial Economics	4	-	-	3
5	BA2903	Accounting for Managers	4	-	-	3
6	BA2904	Business Environment and Legislation	4	-	-	3
7	BA2905	Business Law	4	-	-	3
8	BA2906	Information Technology Lab for Business Management	-	-	4	2
<b>Total</b>			<b>27</b>	<b>1</b>	<b>4</b>	<b>23</b>

### II Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits
			L	T	P	
1	MA2903	Business Research Methods	3	1	-	3
2	BA2907	Financial Management	4	-	-	3
3	BA2908	Marketing Management	4	-	-	3
4	BA2909	Human Resource Management	4	-	-	3
5	BA2910	Production & Operations Management	4	-	-	3
6	BA2911	International Business	4	-	-	3
7	BA2912	Organizational Behaviour	4	-	-	3
<b>Total</b>			<b>27</b>	<b>1</b>	<b>-</b>	<b>21</b>

L : Lecture

T : Tutorial

P : Practical

Master of Business Administration - R17

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 IQAC

  
**PRINCIPAL**  
Seshadri Rao  
Gudlavaluru Engineering College  
Seshadri Rao Knowledge Village  
Gudlavaluru - 521 356, Krishna District. A.P.

III Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits	
			L	T	P		
1	BA2913	Business Policy & Strategic Management	4	-	-	3	
2	BA2914	Logistics & Supply Chain Management	4	-	-	3	
3	BA2915	E-Business	4	-	-	3	
4	BA2916	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	-	-
8		Specialisation - IV	4		-	-	3
<b>Total</b>			<b>32</b>	<b>0</b>	<b>0</b>	<b>24</b>	

IV Semester

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Periods per week			No. of Credits	
			L	T	P		
1	BA2923	Entrepreneurship & Project Management	4	-	-	3	
2		Specialisation - V	Marketing subjects common to all	4	-	-	3
3		Specialisation - VI		4	-	-	3
4		Specialisation - VII		Finance (or) HR	4	-	-
5		Specialisation - VIII	4		-	-	3
6		Project Report	-	-	-	6	
7		Comprehensive Viva-Voce	-	-	-	1	
<b>Total</b>			<b>20</b>	<b>0</b>	<b>0</b>	<b>22</b>	

Specialisations:

III Semester	IV Semester
<b>Marketing</b> BA2917 Advertising & Brand Management BA2918 Consumer Behaviour <b>Finance</b> BA2919 Security Analysis & Portfolio Mgt. BA2920 International Financial Management <b>HR</b> BA2921 Training and Development BA2922 Industrial Relations and Labour Laws	<b>Marketing</b> BA2924 Marketing of Services BA2925 Sales & Distribution Management <b>Finance</b> BA2926 Financial Derivatives BA2927 Financial Institutions and Services <b>HR</b> BA2928 Compensation Management BA2929 Management of Change and Development