

ECE

Semester-III

Course No.	Course Title	Course Type	Contact Hour			Credit	Remarks
			L	T	P		
MA 201	Mathematics-III	SC	3	0	0	3	
EC 201	Network Analysis	DC	3	1	2	5	
EC 202	Digital Logic Design	DC	3	1	2	5	
EC 203	Signal & Systems	DC	3	1	0	4	
CS 210	OE-I (e.g.Data Structures & Algorithms)	OE	3	0	2	4	
PH 201	Science Elective (Physics of Materials)	SE	3	0	0	3	
			18	3	6		
	Total Contact Hours per week		27			24	

SC- Science Core, DC- Discipline Core, HSC- HSC Core, OE- Open Elective

Semester-V

Course No.	Course Title	Course Type	Contact Hour			Credit	Remarks
			L	T	P		
EC 301	Microprocessors & Interfacing	DC	3	0	2	4	
EC 302	Digital Communication	DC	3	1	2	5	
EC 303	Digital Signal Processing	DC	3	0	2	4	
EC 311	DE-I (EM Waves & Radiating Pattern)	DE	4	0	2	5	
EE 303	OE-IV (Control System)	OE	3	0	0	3	
HS 301	Foundations of Management	HSC	3	0	0	3	
			19	1	8		
	Total Contact Hours per week		28			24	

DC- Discipline Core, HSC- HSC Core, DE- Discipline Elective, OE- Open Elective

Semester-VII

Course No.	Course Title	Course Type	Contact Hour			Credit	Remarks
			L	T	P		
EC 401	Project-I	PW	0	0	8	4	
EC 411	DE-III (VLSI Design)	DE	3	0	2	4	
EC 412	DE-IV (RF & Microwave)	DE	4	0	2	5	
EC415/ EC514	OE-V (Information Th & Coding/ Advanced Digital Communication)	OE	3	0	0	3	
HS 401	Professional Ethics	HSC	2	0	0	2	
HS 402	Introduction to Economics	HSE	3	0	0	3	
			15	0	12		
	Total Contact Hours per week		27			21	

M.Tech

Semester-I

Sl. No.	Course Title	Code	Contact Hour			Credit	Remarks
			L	T	P		
1.	Advanced Engineering Mathematics	MA 551	3	0	0	3	
2.	Physics of Semiconductor	EC 501	3	0	0	3	
3.	Electronic System Design	EC 502	3	0	2	4	
4.	Elective-I	EC xxx	3	0	2	4	
5.	Elective-II	EC xxx	3	0	2	4	
			15	0	6		
			21			18	

Elective-I & II			
EC 511	Wireless & Mobile Communication	EC 514	Advanced Digital Communication
EC 512	VLSI Circuits & Systems	EC 515	Fabrication Technology

CE

SEMESTER-III

Course No.	Course Title	Course Type	L	T	P	C	Remarks
MA201	Mathematics III	SC	3	0	0	3	
CE201	Solid Mechanics	DC	3	0	0	3	
CE202	Surveying	DC	3	0	0	3	
CE203	Civil Engineering Materials	DC	2	0	0	2	
CE204	Environmental Engineering - I	DC	3	0	0	3	
CE205	Structural Analysis - I	DC	3	0	0	3	
PH201	Science Elective (Physics of materials)	SE	3	0	0	3	
CE211	Surveying Lab	DC	0	0	4	2	
CE212	Civil Engineering Materials- Lab	DC	0	0	2	1	
CE213	Environmental Engineering Lab	DC	0	0	2	1	
			20	0	8		
		Total	28			24	

SEMESTER-V

Course No.	Course Title	Course Type	L	T	P	C	Remarks
CE301	Reinforced Concrete Design	DC	3	1	0	4	
CE302	Geotechnical Engineering - II	DC	3	0	0	3	
CE303	Transportation Engineering -I	DC	3	0	0	3	
CE334	Departmental Elective-I -Engineering Geology	DE	3	0	0	3	
CE333	Open Elective-II-Computational methods in civil Engineering	OE	3	1	0	4	
HS 302	Accounting And Financial Methods	HSS	3	0	0	3	
CE304	Hydrology and Water Resources Engineering	DC	3	0	0	3	
CE311	Transportation Engineering Lab-I	DC	0	0	2	1	
CE312	Geotechnical Engineering Lab- II	DC	0	0	2	1	
			21	2	4		
		Total	27			25	

SEMESTER-VII

Course No.	Course Title	Course Type	L	T	P	C	Remarks
CE401	Project works-I	PW	0	0	8	4	
CE430	<i>Departmental Elective-III-Irrigation Engineering</i>	DE	3	0	0	3	
CE431	<i>Departmental Elective-IV-Ground improvement techniques</i>	DE	3	1	0	4	
HS 401	Professional Ethics	HSC	2	0	0	2	
CE428/ME436	<i>Open Elective-V: CE – 428 - Finite Element Methods in Engineering, ME – 436 - Composite Materials</i>	OE	3	0	0	3	
HS402	Introduction to Economics	HSC	3	0	0	3	
			14	1	8		
		Total	23			19	

CSE**Semester-III**

Course No.	Course Title	Course Type	Contact Hour			Credit	Remarks
			L	T	P		
MA 202	Probability & Statistics	SC	3	0	0	3	
MA 204	Discrete Mathematics	SC	3	0	0	3	
CS 201	Digital Logic Design	DC	3	1	2	5	
CS 202	Data Structures	DC	3	1	2	5	
CS 203	Automata and Formal Languages	DC	3	0	0	3	
EC203	OE-I (Signal & Systems)	OE	3	1	0	4	
MA 210	Mathematics Laboratory	SC	0	0	4	2	
			18	3	8		
			29			25	

Semester-V

Course No.	Course Title	Course Type	Contact Hour			Credit	Remarks
			L	T	P		
CS 301	Microprocessors & Interfacing	DC	3	0	2	4	
CS 302	Computer Networks	DC	3	0	2	4	
CS 303	System Programming	DC	3	0	2	4	
CS 312	DE-I (Computer Graphics)	DE	3	0	2	4	
EC312	OE-III (e.g. Image Processing)	OE	3	0	0	3	
HS 301	Foundations of Management	HSC	3	0	0	3	
			18	0	8	22	
			26			22	

DC- Discipline Core, HSC- HSC Core, DE- Discipline Elective, OE- Open Elective

Semester-VII

Course No.	Course Title	Course Type	Contact Hour			Credit	Remarks
			L	T	P		
CS 401	Project-I	PW	0	0	8	4	
CS 411	DE-III (Cryptography & Network Security)	DE	3	0	0	3	
CS 412	DE-IV (Artificial Intelligence)	DE	3	0	0	3	
CS414	OE-V (Web Technology)	OE	3	0	0	3	
HS 401	Professional Ethics	HSC	2	0	0	2	
HS 402	Introduction to Economics	HSE	3	0	0	3	
			14	0	8	18	
			22			18	

PW- Project Work, HSC- HSC Core, HSE- HS Elective, DE- Discipline Elective, OE- Open Elective

M.Tech

Semester I

Course No.	Course Title	Course Type	Contact Hour			Credit	Remarks
			L	T	P		
CS 501	Mathematical Foundations of Computer Science	DC	3	0	0	3	
CS 502	Algorithms and Complexity	DC	3	0	0	3	
CS 503	Advanced Concepts in Operating Systems	DC	3	0	0	3	
CS 511	Elective I: Mobile Computing	DE	3	0	0	3	
CS 512/515	Elective II: CS 512 - Image Processing, CS 515 - Distributed Computing	DE	3	0	0	3	
CS 505	Advanced Programming, Operating System and Database Laboratory	LAB	0	0	6	3	
			15	0	6		
			21			18	

DC: Discipline Core

DE: Discipline Elective

LAB: Laboratory

PW: Project Work

SE: Seminar

EE**Semester-III**

Course No.	Course Title	Course Type	Contact Hour			Credit	Remarks
			L	T	P		
MA 201	Mathematics-III	SC	3	0	0	3	
EE 201	Electronic Devices & Circuits	DC	3	1	2	5	
EE 202	Digital Logic Design	DC	3	1	2	5	
EE 203	Network Analysis	DC	3	1	2	5	
CS 210	OE-I (Data Structures & Algorithms)	OE	3	0	2	4	
PH 201	Science Elective (e.g. Physics of Materials / Graph Theory etc.)	SE	3	0	0	3	
			18	3	8		
			29			25	

SC- Science Core, DC- Discipline Core, HSC- HSC Core, OE- Open Elective

SEMESTER-V

Course No.	Course Title	Course Type	Contact Hour			Credit	Remarks
			L	T	P		
EE 301	Microprocessors & Interfacing	DC	3	0	2	4	
EE 302	Electrical Machines-II	DC	3	1	2	5	
EE 303	Control Systems	DC	3	0	2	4	
EE 311	DE-I (e.g. Power System Analysis)	DE	3	0	0	3	
EE 313	OE-III (Analog Electronics)	OE	3	0	2	4	
HS 301	Foundations of Management	HSC	3	0	0	3	
			18	1	8		
			27			23	

DC- Discipline Core, SE- Science Elective, OE- Open Elective

Semester-VII

Course No.	Course Title	Course Type	Contact Hour			Credit	Remarks
			L	T	P		
EE 401	Project-I	PW	0	0	8	4	
EE 413	DE-III (High Voltage Engineering)	DE	3	0	0	3	
EE 422	DE-IV (Power System Operation & Control)	DE	3	0	2	4	
EC 303	OE-V (Digital Signal Processing)	OE	3	0	0	3	
HS 401	Professional Ethics	HSC	2	0	0	2	
HS 402	Introduction to Economics	HSE	3	0	0	3	
			14	0	10	19	
			24				

PW- Project Work, HSC- HSC Core, HSE- HS Elective, DE- Discipline Elective, OE- Open Elective

Course No.	Course Title	Contact Hour			Credit
		L	T	P	
Semester-I					
EE 501	Power System Interconnection & Control	3	0	0	3
EE 502	Advanced Power Converters	3	0	0	3
EE 503	Renewable and Distributed Energy Systems	3	0	0	3
EE 515	Elective – I (Instrumentation & Control In Energy Systems)	3	0	0	3
EE 532	Elective – II (Statistical Technique in Power Apparatus & Systems)	3	0	0	3
EE 551	Power & Energy Systems Lab	0	0	6	3
		21			18

ME

SEMESTER-III

Course No.	Course Title	Course Type	L	T	P	C	Remarks
MA 201	Mathematics-III	SC	3	0	0	3	
ME 201	Strength of Materials	DC	3	1	0	4	
ME 202	Dynamics of Rigid bodies	DC	3	0	0	3	
ME 203	Fluid mechanics-I	DC	3	0	0	3	
ME 204	Applied Thermodynamics	DC	3	0	0	3	
PH201	Science Elective –Physics of Materials	SE	3	0	0	3	
ME 211	Mechanical lab – I (Fluid Mechanics Lab + Strength of Materials Lab)	DC	0	0	6	3	
ME 212	Workshop Practice - II	DC	0	0	4	2	
			18	1	10		
			29			24	

SC – Science Core;

DC – Discipline core;

SE – Science Elective

SEMESTER-V

Course No.	Course Title	Course Type	L	T	P	C	Remarks
ME 301	Heat and Mass Transfer	DC	3	1	0	4	
ME 302	Machine Design-I	DC	3	0	0	3	
ME 303	Manufacturing Technology – II	DC	3	0	0	3	
ME 322	Dept Elective – (Advanced solid Mechanics)	DE	3	0	0	3	
ME323	Open Elective – II (Combustion)	OE	3	0	0	3	
HS 302	Accounting And Financial Methods	HSC	3	0	0	3	
ME 311	Machine Drawing	DC	1	0	4	3	
ME 312	Mechanical Lab – III (Thermal Engineering Lab + Metallographic Lab)	DC	0	0	6	3	
			19	1	10		
			30			25	

DC – Discipline core;

DE – Discipline Elective;

OE – Open Elective; HSC – HS Core

SEMESTER-VII

Course No.	Course Name	Course Type	L	T	P	C	Remarks
ME 401	Major Project - I	PW	0	0	8	4	
ME 433	Elective – Vibration	DE	3	0	0	3	
ME 435	Elective – Refrigeration and Air Conditioning	DE	3	0	0	3	
ME436/CE428/CS412	Open Elective-III : (ME 436 -Composite Materials, CE428 - Finite Element Methods in Engineering, CS 412 - Artificial Intelligence)	OE	3	0	0	3	
HS 401	Professional Ethics	HSC	2	0	0	2	
HS 402	Introduction to Economics	HSE	3	0	0	3	
			14	0	8		
			22			18	

PW – Project Work;

DE – Discipline Elective;

OE –Open Elective;

HSC – HS Core; HSE – HS Elective

M.Tech

Semester-I

Sl. No.	Course Title	Code	Contact Hour			Credit	Remarks
			L	T	P		
1.	Engineering Mathematics	MA 552	3	0	0	3	
2.	Advanced Fluid Mechanics	ME 501	3	0	0	3	
3.	Convective Heat and Mass Transfer	ME 502	3	0	0	3	
4.	Elective-I (Advanced Thermodynamics)	ME 551	3	0	0	3	
5.	Elective-II (Experimental Methods in Mechanical Systems)	ME 553	3	0	0	3	
6.	Thermal Engineering Laboratory	ME 531	0	0	6	3	
			15	0	6		
			21			18	

Math

Course No.	Course Title	Contact Hour			Credit
		L	T	P	
Semester-I					
MA 401	Real Analysis	3	1	0	4
MA 402	Linear Algebra	3	1	0	4
MA 403	Numerical Analysis	3	0	2	4
MA 404	Ordinary Differential Equations	3	1	0	4
MA 405	Number Theory	3	1	0	4
MA 406	Computer Programming	2	0	4	4
		17	4	6	24
		27			24

Semester-III					
MA 501	Introductory Measure Theory	3	1	0	4
MA 502	Functional Analysis	3	1	0	4
MA531	Elective I (Graph Theory)	3	0	0	3
MA532	Elective II (Fluid Mechanics)	3	0	0	3
MA 571	Project I	0	0	8	4
		12	2	8	18
		22			18

Phy

Semester I				
Course code	Course name	L-T-P	C	Prerequisites
PH 401	Mathematical Physics	3-1-0	4	None
PH 402	Classical Mechanics	3-1-0	4	None
PH 403	Quantum Mechanics I	3-1-0	4	None
PH 405	Physics of Electronic Devices	3-0-0	3	None
PH 481	Physics Laboratory I	0-0-6	3	None
PH 421	Computational Programming	1-0-2	2	None
Semester III				
PH 501	Atomic and Molecular Physics	3-1-0	4	None
PH 502	Applied Optics	3-0-0	4	None
PH 503	Condensed Matter Physics II	3-1-0	4	None
PH 581	Physics Laboratory III	0-0-6	3	None
PH532	Elective I (Numerical methods & Computational Physics)	3-0-0	3	None
PH534	Elective II (Computational lab)	0-0-6	3	None
PH 571	Project I	0-0-4	2	None

Chem

Semester I

Course No	Course title	Contact hours			Credit
		L	T	P	
CH401	Organic Chemistry I	3	1	0	4
CH402	Inorganic Chemistry I	3	1	0	4
CH403	Physical Chemistry I	3	1	0	4
CH404	Quantum Mechanics	3	1	0	4
CH481	Organic Chemistry Laboratory	0	0	8	4
				Total	20

Semester III

Course No	Course title	Contact hours			Credit
		L	T	P	
CH501	Organic Chemistry III	3	1	0	4
CH502	Inorganic Chemistry III	3	1	0	4
CH503	Physical Chemistry III	3	0	0	3
CH537	Elective I-Biochemistry & Medicinal Chemistry	3	0	0	3
CH540	Elective II-Solid State Chemistry	3	0	0	3
CH581	Physical Chemistry Laboratory	0	0	8	4
CH571	Project I	0	0	4	2
				Total	23