

Semester	Category Code	Course Code	Course Name	Theory	Tutorial	Practical	Hrs	Credits
Semester 1	BSC		Mathematics – II	3	1	0	4	4
	BSC		Chemistry	3	0	0	3	3
	BSC		Chemistry Lab	0	0	2	2	1
	ESC		Element of Mechanical Engineering	3	0	0	3	3
	ESC		Element of Mechanical Engineering	0	0	2	2	1
	ESC		Basic Electronics	2	0	0	2	2
	ESC		Basic Electronics Lab	0	0	2	2	1
	ESC		Computer Programming - I	1	0	0	1	1
	ESC		Computer Programming Lab - I	0	0	2	2	1
	HSC		Professional Ethics and Human Values	1	0	0	1	1
HSC		NCC/NSS/Sports	0	0	2	2	1	
				<b>13</b>	<b>1</b>	<b>10</b>	<b>24</b>	<b>19</b>
Semester 2	BSC		Mathematics - I	3	1	0	4	4
	ESC		Element of Civil Engineering & Mechanics	4	0	0	4	4
	ESC		Element of Civil Engineering & Mechanics - Lab	0	0	2	2	1
	ESC		Elements of Electrical Engineering	3	0	0	3	3
	ESC		Elements of Electrical Engineering - Lab	0	0	2	2	1
	BSC		Physics	3	0	0	3	3
	BSC		Physics Lab	0	0	2	2	1
	ESC		Workshop Practice	0	0	2	2	1
	ESC		Engineering Graphics	1	0	0	1	1
	ESC		Engineering Graphics - Lab	0	0	2	2	1
	ESC		Computer Programming II	0	0	2	2	1
	HSC		Environmental Studies	3	0	0	3	3
	HSC		Communication Skills - I	0	0	2	2	1
	HSC		NCC/NSS/Sports	0	0	2	2	1
HSC		Civic services and Social Internship (Summer Break)	0	0	0	0	1	
				<b>17</b>	<b>1</b>	<b>16</b>	<b>34</b>	<b>27</b>

Semester	Category Code	Course Code	Course Name	Theory	Tutorial	Practical	Hrs	Credits
Semester 3	BSC		MATHS-III	3	1	0	4	4
	PC		Electro Magnetics and Transmission Line	3	0	0	3	3
	PC		Digital Logic Design and HDL	3	0	0	3	3
	PC		Circuits and Systems	3	0	0	3	3
	PC		Analog Electronics-1	3	0	0	3	3
	PC		Analog Electronics-1 Lab	0	0	2	2	1
	PC		Digital Logic Design Lab	0	0	2	2	1
	PC		Simulation and Design Tools Lab	0	0	2	2	1
	OE		OE-1	3	0	0	3	3
				<b>18</b>	<b>1</b>	<b>6</b>	<b>25</b>	<b>22</b>
Semester 4	PC		Analog Communication	3	0	0	3	3
	PC		Analog Electronics-2	3	0	0	3	3
	PC		Digital Signal Processing	3	0	0	3	3
	PC		Computer Communication and Networks	2	0	0	2	2
	PC		Analog Communication Lab	0	0	2	2	1
	PC		Analog Electronics-2 Lab	0	0	2	2	1
	PC			0	0		0	0
	PC		Digital Signal Processing Lab	0	0	2	2	1
	OE		OE-2	3	0	0	3	3
	IND		Industry 4.0	2	0	0	2	2
	IND		Industry 4.0 Lab	0	0	2	2	1
	HSC		Communication Skills - II	0	0	2	2	1
Project		Industrial Orientation (3 weeks-summer break)	0	0	0	0	1	
				<b>16</b>	<b>0</b>	<b>10</b>	<b>26</b>	<b>22</b>

Semester	Category Code	Course Code	Course Name	Theory	Tutorial	Practical	Hrs	Credits
Semester 5								
	PC		Digital Communication	3	0	0	3	3
	PC		Computer Design and Applications	3	0	0	3	3
	PC		Machine Learning and Applications	3	0	0	3	3
	PC		Digital Communication Lab	0	0	2	2	1
	PC		Computer Design and Applications Lab	0	0	2	2	1
	PC		Machine Learning and Applications Lab	0	0	2	2	1
	CE		CE1(Theory)	3	0	0	3	3
	CE		CE2 (Theory)	3	0	0	2	3
	CE			0	0	0	0	0
	CE			0	0	0	0	0
OE		OE-3	3	0	0	3	3	
				<b>18</b>	<b>0</b>	<b>6</b>	<b>23</b>	<b>21</b>
Semester 6	PC		Embedded Systems	3	0	0	3	3
	PC		Antenna Theory and Design	3	0	0	3	3
	PC		Embedded Systems Lab	0	0	2	2	1
	PC		Electronics System design lab	0	0	2	2	1
	CE		CE3 (Theory)	3	0	0	3	3
	CE		CE4 (Theory)	3	0	0	3	3
	PC		VLSI Technology	3	0	0	3	3
	PC			0	0		0	0
	OE	<b>OE-4</b>	OE-4	3	0	0	3	3
	HSC		Communication Skills - III	0	0	2	2	1
Project		Industrial Training/ IEP (6 weeks-summer break)	0	0	0	0	2	
				<b>18</b>	<b>0</b>	<b>6</b>	<b>24</b>	<b>23</b>

ELECTIVES

Image Processing
Opto Electronics and Optical Communication
Building blocks of Cyber Physical Systems
Probability and Statistics for Communication
Mobile Communication
Modern Control Theory

ELECTIVES

(instrumentation and measurement, sensor, signal conditioning, PCB design)

Cognitive and Software Defined Radio
Introduction to Quantum Computing
Information Theory and Coding
Wireless Sensor Networks
Power Electronics
Artificial Intelligence
Digital Control Systems

ELECTIVES

Semester	Category Code	Course Code	Course Name	Theory	Tutorial	Practical	Hrs	Credits
Semester 7	PC		RF and Microwave	3	0	0	3	3
	PC	20ICXXXT	Digital CMOS VLSI Circuits	2	0	0	2	2
	PC		RF and Microwave Lab	0	0	2	2	1
		20ICXXXT	Digital CMOS VLSI Circuits Lab	0	0	2	2	1
	CE		CE5 (Theory)	3	0	0	3	3
	CE		CE6(Theory)	3	0	0	3	3
	CE		CE7(Theory)	3	0	0	3	3
	CE			0	0	0	0	0
	CE			0	0	0	0	0
	CE			0	0	0	0	0
	Project		Mini Project	0	0	6	6	3
				<b>14</b>	<b>0</b>	<b>10</b>	<b>24</b>	<b>19</b>

Information Security
Energy harvesting
Radar and Navigation Systems
Internet of Things
Deep and Reinforcement Learning
Process Control & Instrumentation
Bio-medical Electronics
Industrial Automation and Robotics
GIS and Remote Sensing
Satellite Communication
5G Networks
Advanced Processors and SoCs

Semester 8	Project		Comprehensive Project	0	0	20	20	10
				<b>Theory</b>	<b>Tutorial</b>	<b>Practical</b>	<b>Hrs</b>	<b>Credits</b>
<b>Odd Term</b>				<b>63</b>	<b>2</b>	<b>32</b>	<b>96</b>	<b>81</b>
<b>Even Term</b>				<b>51</b>	<b>1</b>	<b>52</b>	<b>104</b>	<b>82</b>
<b>Total</b>				<b>114</b>	<b>3</b>	<b>84</b>	<b>200</b>	<b>163</b>

Sr. No	Code	Component	Lec	Tutorial	Practical	Hrs	Credits	Required Credits
1	HSC	Humanities & Social Science Including Management Courses	4	0	10	14	10	8
2	BSC	Basic Science Courses	15	3	4	22	20	20
3	ESC	Engineering Science Courses including Workshop, drawing, Basic of Electrical,	14	0	16	30	22	22
4	Ind	Industry 4.0 Course	2	0	2	2	3	3
5	PC	Professional Core Courses	43	0	24	67	55	56
6	CE	Professional Elective Courses related to chosen specialization	24	0	0	23	24	22
7	OE	Open Elective Subjects from Other technical / emerging subjects	12	0	0	12	12	16
8	Project	Project work, Seminar or Internship in Industry or elsewhere	0	0	26	26	16	16
<b>Overall</b>			<b>114</b>	<b>3</b>	<b>82</b>	<b>196</b>	<b>162</b>	<b>163</b>