

**COURSES FOR B. TECH. IN ELECTRONICS & COMMUNICATION  
ENGINEERING**

**Semester – I**


<u>UNITCOURSE NAME</u>	<u>L</u>	<u>T</u>	<u>P</u>	<u>CR</u>	<u>CH</u>
MS 101: Mathematics I	3	1	0	4	4
PH 101: Physics I	2	1	1	4	5
CH 101 : Chemistry	2	1	1	4	5
EL 101: Basic Electrical Engineering	2	1	1	4	5
ME 101: Engineering Graphics	1	0	2	3	5
ME 103 Workshop Practice	0	0	2	2	4
<b><i>Humanities Elective:</i></b>					
EG 101 Communicative English	3	0	0	3	3
SO 101 Sociology					
BM 101 Elementary Economics					
Total	13	4	7	24	31

**Semester – II**

<u>UNITCOURSE NAME</u>	<u>L</u>	<u>T</u>	<u>P</u>	<u>CR</u>	<u>CH</u>
MS 103 Mathematics – II	3	1	0	4	4
PH 102 Physics – II	2	1	1	4	5
ME 102 Engineering Mechanics	3	1	0	4	4
EL 102 Basic Electronics	3	1	1	5	6
CO 101 Introductory Computing	2	1	0	3	3
CO 102 Computing Laboratory	0	0	2	2	4
<b><i>Science Elective:</i></b>					
BT 101 Elements of Modern Biology	3	0	0	3	3
ES 101 Environmental Science					
CH 102 Introductory Material Science					
Total	16	5	4	25	29

**Semester – III**

<u>UNITCOURSE NAME</u>	<u>L</u>	<u>T</u>	<u>P</u>	<u>CR</u>	<u>CH</u>
MS 201 Mathematics – III	2	1	0	3	3
EL 201 Switching Circuits & Digital Logic	2	1	1	4	5
EL 202 Electrical Technology	2	1	1	4	5
EL 203 Analog Electronic Devices and Circuits	2	1	1	4	5
EL 204 Signals and Systems	2	1	0	3	3
CO 212 Computer Architecture and Organization	3	1	1	5	5
Total	13	6	4	23	26

  
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#### Semester – IV

<u>UNITCOURSE NAME</u>	<u>L</u>	<u>T</u>	<u>P</u>	<u>CR</u>	<u>CH</u>
EL 205 Integrated Circuit	3	0	1	4	5
EL 206 Principles of Communication	3	0	1	4	5
EL 207 Instrumentation	3	0	1	4	5
EL 208 Engineering Electromagnetic	3	0	0	3	3
CO 221 Data Structures and Object Oriented Programming	3	0	1	4	5
CO 222 System Software & Operating Systems	3	0	1	4	5
Total	18	0	5	23	28

#### Semester – V

<u>UNITCOURSE NAME</u>	<u>L</u>	<u>T</u>	<u>P</u>	<u>CR</u>	<u>CH</u>
EL 301 Digital Communication	3	0	1	4	5
EL 302 Microprocessors & Interfacing	2	0	1	4	6
EL 303 Digital Signal Processing	3	0	1	4	5
EL 304 Control System Engineering	3	0	1	4	5
EL 305 Microwave Engineering	3	0	1	4	5
BM 321 Fundamental of Management	3	0	0	3	3
Total	17	0	6	23	29


#### Semester – VI

<u>UNITCOURSE NAME</u>	<u>L</u>	<u>T</u>	<u>P</u>	<u>CR</u>	<u>CH</u>
EL 306 Communication Networks	3	0	1	4	5
EL 307 Device Modeling & Simulation	3	0	1	4	5
EL 308 VLSI Design	3	0	1	4	5
BM 322 Social Responsibility and Professional Ethics in Engineering	3	0	0	3	3
ECE Elective – I	3	0	0	3	3
Open Elective – I*	3	0	0	3	3
Total	18	0	3	21	24

\* Open Elective : Any course of level 400 and above offered in the University and recommended by the department.

#### Semester – VII\*

<u>UNITCOURSE NAME</u>	<u>L</u>	<u>T</u>	<u>P</u>	<u>CR</u>	<u>CH</u>
EL 401 Digital Systems Design & VHDL	3	0	1	4	5
ECE Elective – II	3	0	0	3	3
ECE Elective – III	3	0	0	3	3
Open Elective – II	3	0	0	3	3

  
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EL 471	Industrial Summer Training #	-	-	-	2	-
EL 481	Project I	0	0	6	6	12
	Total	12	0	7	21	26

### Semester – VIII

<u>UNITCOURSE NAME</u>	<u>L</u>	<u>T</u>	<u>P</u>	<u>CR</u>	<u>CH</u>
ECE Elective – IV	3	0	0	3	3
Open Elective – III	3	0	0	3	3
EL 482 Project – II	0	0	12	12	24
Total	6	0	12	18	30

### ECE Elective

#### UNITCOURSE NAME

- EL 421 Image Processing
- EL 422 Electronics Design Automation
- EL 423 Medical Electronics
- EL 424 Fiber Optic Communication
- EL 425 Mobile Communication
- EL 426 Fuzzy Logic and Neural Networks
- EL 427 Satellite Communication Systems
- EL 428 Information and Coding Theory
- EL 429 Graph Theory
- EL 430 Computer Vision
- EL 431 MEMS and Microsystems Technology
- EL 432 Advance Semiconductor Devices
- EL 433 Biomedical Signal Processing
- EL 434 Bioneuro Engineering
- EL 435 Nanoelectronics
- EL 436 Intelligent Instrumentation
- EL 437 Wireless Communication
- EL 438 Digital Signal Processor
- EL 439 Power Electronics

Also any other course of level 400 and above offered in the department of ECE.

¥ The 7<sup>th</sup> semester will start a month later than usual and therefore be shorted by a month. To compensate for it there shall be 4 class hours per week for a 3 credit course.

# Industrial Summer Training: Training of 12 weeks duration carried out during the summer break after the 6<sup>th</sup> semester. The report will be submitted in the 7<sup>th</sup> semester.

  
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