

2022 - Electrical Engineering

Semester I

| S. No | Course Code | Course Name | L | T | P | C |
|-------|-------------------|------------------------------------------------------------------|---|---|---|-------|
| 1 | CH 102 | Fundamental concepts and applications of chemistry | 3 | 0 | 0 | 6 |
| 2 | MA 109 | Calculus I (1st Half) | 3 | 1 | 0 | 4 |
| 3 | MA 121 | Calculus II (2nd Half) | 3 | 1 | 0 | 4 |
| 4 | PH 101 | Quantum Physics and Applications | 2 | 1 | 0 | 6 |
| 5 | BB 103 | Introduction to Modern Biology | 3 | 0 | 0 | 6 |
| 6 | CS 103 | Introduction to Programming - 1 (Using C) (1st Half) | 3 | 0 | 2 | 4 |
| 7 | EE 103 | Introduction to Programming - 2 (Using Python) (2nd Half) | 3 | 0 | 2 | 4 |
| 8 | PH 113 | Hands on Science Laboratory - I | 0 | 0 | 3 | 3 |
| 9 | HS 103 | Introduction to Fine Arts | 1 | 0 | 0 | PP/NP |
| 10 | HS 106 | Design Thinking and Creativity | 1 | 0 | 0 | PP/NP |
| 11 | NO 101/ NO 103 | National Sports Organization (NSO)/National Service Scheme (NSS) | | | | PP/NP |
| | | Total Credits | | | | 37 |

Semester II

| S. No | Course Code | Course Name | L | T | P | C |
|-------|-------------------|------------------------------------------------------------------|---|---|---|-------|
| 1 | MA 102 | Linear Algebra (1st Half) | 3 | 1 | 0 | 4 |
| 2 | MA 103 | Differential Equations - I (2nd Half) | 3 | 1 | 0 | 4 |
| 3 | ME 111 | Engineering Graphics Laboratory | 1 | 0 | 3 | 5 |
| 4 | EE 101 | Introduction to Electrical and Electronics Circuits | 3 | 0 | 0 | 6 |
| 5 | CS 201 | Data Structures and Algorithms | 3 | 0 | 0 | 6 |
| 6 | CS 211 | Data Structures and Algorithms Laboratory | 0 | 0 | 3 | 3 |
| 7 | ME 113 | Hands on Engineering Laboratory | 0 | 0 | 3 | 3 |
| 8 | PH 102 | Electricity and Magnetism | 2 | 1 | 0 | 6 |
| 9 | NO 102/ NO 104 | National Sports Organization (NSO)/National Service Scheme (NSS) | | | | PP/NP |
| | | Total Credits | | | | 37 |

Semester III

| S. No | Course Code | Course Name | L | T | P | C |
|-------|-------------|----------------------------------------|---|---|---|---|
| 1 | EE 221 | Introduction to Probability (1st Half) | 3 | 0 | 0 | 3 |
| 2 | EE 227 | Data Analysis (2nd Half) | 3 | 0 | 0 | 3 |
| 3 | EE 229 | Electronic Devices (1st Half) | 3 | 0 | 0 | 3 |

| | | | | | | |
|---|--------|--------------------------------------------|---|---|---|----|
| 4 | EE 202 | Introduction to Analog Circuits (2nd Half) | 3 | 0 | 0 | 3 |
| 5 | EE 205 | Network Theory | 3 | 0 | 0 | 6 |
| 6 | EE 210 | Signals and Systems | 3 | 0 | 0 | 6 |
| 7 | MA 201 | Complex Analysis (1st Half) | 3 | 1 | 0 | 4 |
| 8 | MA 203 | Differential Equations II (2nd Half) | 3 | 1 | 0 | 4 |
| 9 | HS 201 | Economics | 3 | 0 | 0 | 6 |
| | | Total Credits | | | | 38 |

Semester IV

| S. No | Course Code | Course Name | L | T | P | C |
|-------|-------------|--------------------------------------------------|---|---|---|----|
| 1 | EE 206 | Introduction to Electrical Machines (1st Half) | 3 | 0 | 0 | 3 |
| 2 | EE 209 | Introduction to Power Electronics (2nd Half) | 3 | 0 | 0 | 3 |
| 3 | EE 208 | Engineering Electromagnetics (1st Half) | 2 | 1 | 0 | 3 |
| 4 | EE 223 | Introduction to Power Systems (2nd Half) | 2 | 0 | 2 | 3 |
| 5 | EE 232 | Introduction to Communication Systems (1st Half) | 3 | 1 | 0 | 3 |
| 6 | EE 216 | Comunications Lab (2nd Half) | 0 | 0 | 4 | 2 |
| 7 | EE 224 | Digital Systems | 3 | 0 | 0 | 6 |
| 8 | EE 214 | Digital Circuits Lab | 0 | 0 | 3 | 3 |
| 9 | EE 226 | Control Systems and Laboratory | 2 | 0 | 2 | 6 |
| 10 | EE 212 | Devices and Circuits Lab | 0 | 0 | 3 | 3 |
| | | Total Credits | | | | 35 |

Semester V

| S. No | Course Code | Course Name | L | T | P | C |
|-------|-------------|-----------------------------------------------|---|---|---|----|
| 1 | EE 325 | Microprocessors and Microcontrollers | 3 | 0 | 0 | 6 |
| 2 | EE 321 | Digital Signal Processing (1st Half) | 3 | 0 | 0 | 3 |
| 3 | EE 315 | Digital Signal Processing Lab (2nd Half) | 0 | 0 | 4 | 2 |
| 4 | EE 319 | Microprocessors and Microcontrollers Lab | 0 | 0 | 3 | 3 |
| 5 | EE 311 | Electrical Mechines and Power Electronics Lab | 0 | 0 | 3 | 3 |
| 6 | | HSS Elective | 3 | 0 | 0 | 6 |
| 7 | | Electives | | | | 12 |
| | | Total Credits | | | | 35 |

Semester VI

| S. No | Course Code | Course Name | L | T | P | C |
|-------|-------------|------------------------|---|---|---|---|
| 1 | CE 301 | Environmental Studies | 3 | 0 | 0 | 6 |
| 2 | EE 314 | Electronics Design Lab | 3 | 0 | 0 | 6 |

| | | |
|---|----------------------|-----------|
| 3 | Elective Courses | 24 |
| | Total Credits | 36 |

Semester VII & VIII

1. Student has to earn 36 credits in the fourth year.
2. Student may choose to earn zero or 6 or 12 credits through BTP/co-op project.
3. The BTP/co-op may be split in two semesters (6 credits per semester).
4. The remaining credits should be earned through Institute Elective.
5. Student has to credit one 6 credits course from HSS Basket 1 and Basket 2, each.

| | | |
|--|----------------------|-----------|
| | Total Credits | 36 |
|--|----------------------|-----------|

Final year: Students have to earn 36 credits in the fourth year. If the students have taken overload in the previous semesters, then he/she should take an appropriate number of elective courses to complete a total of 254 credits.

Overall Credits Required (Minimum)

254