

Semester-I

| Course Code | Course name | Contact Hours (L-T-P) | Credits |
|-------------|---|-----------------------|---------|
| PHY 102 | Physics-II Introduction to Engineering Electromagnetics | 3-1-2 | 13 |
| CY 101 | Chemistry-I | 2-1-2 | 10 |
| MA 101 | Engineering Maths- I | 3-1-0 | 11 |
| CSO 101 | Computer Programming | 3-1-2 | 13 |
| ME 106 | Manufacturing Practice-II | 0-0-3 | 03 |
| ME 104 | Engineering Drawing | 1-0-3 | 06 |
| H 101 | Universal Human Values - I: Self and Family | 1-1-0 | 05 |
| | Total | 13-5-12 | 61 |
| HL 101 | Basic English | 2-0-1 | 07 |
| | Total | 15-5-13 | 68 |
| GY1 | # Elementary Physical Education | 0-1-3 | 05 |

Semester-II

| Course Code | Course Name | Contact Hours (L-T-P) | Credits |
|-------------|--|-----------------------|---------|
| MA 203 | Mathematical Methods | 3-1-0 | 11 |
| MO 201 | Material Science | 3-1-0 | 11 |
| EO 102 | Fundamentals of Electronics & Instrumentation Engineering* | 3-1-2 | 13 |
| EE 101 | Electrical Circuits and Measurement | 3-1-2 | 13 |
| ME 105 | Manufacturing Practice – I | 0-0-3 | 03 |
| H 105 | Philosophy# | 2-1-0 | 08 |
| H 106 | Education & Self# | | |
| | Total | 14-5-7 | 59 |

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|--------|---|-------|----|
| PE 102 | Elementary Physical Education/Creative Practice # | 0-1-3 | 05 |
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*Multicore subject offered by CSE Dept. to Mathematical Sciences

Semester-III

| Course Code | Course name | Contact Hours (L-T-P) | Credits |
|-------------|--|-----------------------|-----------|
| MA 201 | Numerical Techniques | 3-1-0 | 11 |
| CMO 101 | Basics of Mechanical Engineering | 3-1-0 | 11 |
| EO 201 | Network Analysis & Synthesis | 3-0-2 | 11 |
| EE 221 | DC Machines & Transformer | 3-1-2 | 13 |
| EE 261 | Electrical Engineering Practice | 1-0-3 | 05 |
| H 103 | Development of Societies# | 2-1-0 | 08 |
| H 104 | History and Civilization# | | |
| | Total | 15-4-7 | 60 |
| CP XXX | Music/Dance/Painting/Sculpture/Advertising | | |

Semester-IV

| Course Code | Course Name | Contact Hours (L-T-P) | Credits |
|-------------|---------------------------------------|-----------------------|-----------|
| MA 202 | Probability and Statistics | 3-1-0 | 11 |
| EE 241 | Power Transmission & Distribution | 3-1-2 | 13 |
| EE 231 | Power Electronic Devices & Converters | 3-1-2 | 13 |
| EE 211 | Linear Control Systems | 3-1-2 | 13 |
| EE 272 | Exploratory Project | 0-0-5 | 05 |
| H 102 | Universal Human Value-II # | 1-1-0 | 05 |
| | Total | 13-5-11 | 60 |

*Multicore subject offered by CSE Dept. to Mathematical Sciences

Semester-V

| Course Code | Course Name | Contact Hours (L-T-P) | Credits |
|-------------|--|-----------------------|-----------|
| EO 301 | Digital Circuits & Systems* | 3-0-2 | 11 |
| EE 342 | Power System Protection and Switchgear | 3-0-2 | 11 |
| EE 322 | Synchronous and Induction Machines | 3-0-2 | 11 |
| OE-1 | Open Elective-1 | 3-0-0 | 09 |
| HU/LM | Humanities/Language & Management | 3-0-0 | 09 |
| | Total | 15-0-6 | 51 |
| EE 381 | Stream Project (Hons.) | 0-0-10 | 10 |

- *Multicore Subject offered by CSE to Math Sc.
- + Multicore Subject offered by Math Sc. to CSE
OE1: Graph Theory and Applications: To be taken by students opting for HPC&DE stream.
- +-: Multicore subjects for Math Sc and CSE
- ## Extra Stream Project to be carried out by Hons. Students in V Sem.

Semester-VI

| Course Code | Course Name | Contact Hours (L-T-P) | Credits |
|-------------|--|-----------------------|-----------|
| EE 343 | Power System Analysis & Control | 3-0-2 | 11 |
| EE 332 | Analysis & Applications of Power Electronic Converters | 3-0-2 | 11 |
| EE 323 | Condition Monitoring and energy conservation | 3-0-0 | 09 |
| EE 312 | Physical significance of Mathematical methods | | |
| EE 345 | Artificial Intelligence | | |
| EE 324 | Analysis & Control of Electric Drives | | |
| OE-2 | Open Elective-2 | 3-0-0 | 09 |
| EE 372 | UG Project | 0-0-10 | 10 |
| HU/LM | Humanities/Language & Management\ | 3-0-0 | 09 |
| | Total | 15-0-14 | 59 |
| EE 382 | Stream Project (Hons.) | 0-0-10 | 10 |

Semester-VII

| Course Code | Course Name | Contact Hours (L-T-P) | Credits |
|-------------|--------------------------|-----------------------|-----------|
| EE 433 | Converter Applications | 3-0-2 | 11 |
| EE 413 | Digital Control System | 3-0-0 | 0909 |
| EE 446 | EHV AC & DC Transmission | | |
| EE 403 | Energy Technologies | 3-0-0 | 09 |
| EE 404 | Operations research | | |
| OE-3 | Open Elective-3 | 3-0-0 | 09 |
| EE 471 | UG Projec | 0-0-10 | 10 |
| | Total | 15-0-12 | 57 |
| EE 481 | Stream Project (Hons.) @ | 0-0-20 | 20 |

Semester-VIII

| Course Code | Course Name | Contact Hours (L-T-P) | Credits |
|-------------|---------------------------------------|-----------------------|-----------|
| EE 414 | Optimal and Adaptive control System | 3-0-0 | 09 |
| EE 427 | Electric Utilization & Traction | 3-0-0 | |
| EE 434 | Design of Power Electronic Converters | 3-0-0 | |
| EE 415 | Special Topics in Control Systems | 3-0-0 | 09 |
| EE 426 | Semiconductor Controlled Drives | 3-0-0 | |
| OE-4 | Open Elective-4 | 3-0-0 | 09 |
| EE 492 | Thesis work | 0-0-10 | 10 |
| HU/LM | #Humanities/Language & Management^^ | 3-0-0 | 09 |
| | Total | | 46 |

Semester-IX

| Course Code | Course name | Contact Hours (L-T-P) | Credits |
|-------------|--------------------------------------|-----------------------|-----------|
| OE-5 | Open Elective-5 | 3-0-0 | 09 |
| OE-6 | Open Elective-6 | 3-0-0 | 09 |
| EE 535 | Advanced Power Electronics | 3-0-0 | 09 |
| EE 536 | AI applications in Power Electronics | | |
| HU/LM | #Humanities/Language & Management^^ | 3-0-0 | 09 |
| EE 591 | Thesis work | 0-0-10 | 10 |
| | Total | 12-0-10 | 46 |

Semester-X

| Course Code | Course Name | Contact Hours (L-T-P) | Credits |
|-------------|---------------|-----------------------|---------|
| EE 592 | Thesis work | 0-0-50 | 50 |
| | Total Credits | 0-0-50 | 50 |