

Course Structure: B.Tech. (Electronics Engineering)
Valid for students admitted from year 2023 onwards

Semester 3:

| S.No. | Course Catag | Course No. | Course title | Contact Periods | | | Credits | Marks | | | Total |
|-------|--------------|------------|------------------------------------|-----------------|---|---|---------|-------------|---------|---------|-------|
| | | | | L | T | P | | Course-Work | Mid-Sem | End-Sem | |
| 1 | BS | AMS2512 | Higher Mathematics | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 2 | BS | AMS2522 | Numerical Methods and Optimization | 3 | 0 | 0 | 3 | 15 | 25 | 60 | 100 |
| 3 | PC | ELC2112 | Electronic Devices & Circuits | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 4 | PC | ELC2122 | Circuit Theory | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 5 | PC | ELC2312 | Logic Circuits | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 6 | PC | ELC2412 | Signals and Systems | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 7 | PC | ELC2942 | Electronic Circuits Lab | 0 | 0 | 3 | 1.5 | 60 | | 40 | 100 |

TOTAL CREDITS: 24.5

Semester 4:

| S.No. | Course Catag | Course No. | Course title | Contact Periods | | | Credits | Marks | | | Total |
|-------|--------------|------------|---|-----------------|---|---|---------|-------------|---------|---------|-------|
| | | | | L | T | P | | Course-Work | Mid-Sem | End-Sem | |
| 1 | ESA | COA2602 | Data Structures and Programming | 2 | 1 | 0 | 3 | 15 | 25 | 60 | 100 |
| 2 | ESA | EEA2012 | Electrical Engineering | 3 | 0 | 0 | 3 | 15 | 25 | 60 | 100 |
| 3 | ESA | ELA2432 | Representation and Analysis of Random Signals | 3 | 0 | 0 | 3 | 15 | 25 | 60 | 100 |
| 4 | PC | ELC2132 | Digital Electronics | 3 | 0 | 0 | 3 | 15 | 25 | 60 | 100 |
| 5 | PC | ELC2152 | Analog Electronics | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 6 | PC | ELC2512 | Electromagnetics | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 7 | PC | ELC2952 | Digital Electronics Lab | 0 | 0 | 3 | 1.5 | 60 | | 40 | 100 |
| 8 | PC | ELC2962 | Circuit Simulation Lab | 0 | 0 | 3 | 1.5 | 60 | | 40 | 100 |

TOTAL CREDITS: 23

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Semester 5:

| S.No. | Course Catag | Course No. | Course title | Contact Periods | | | Credits | Marks | | | Total |
|-------|--------------|------------|-------------------------------------|-----------------|---|---|---------|-------------|---------|---------|-------|
| | | | | L | T | P | | Course-Work | Mid-Sem | End-Sem | |
| 1 | PC | ELC3212 | Control Systems | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 2 | PC | ELC3332 | Embedded System | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 3 | PC | ELC3442 | Principles of Communication Systems | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 4 | PC | ELC3512 | Microwaves & Antennas | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 5 | PC | ELC3612 | VLSI Design & Technology | 3 | 1 | - | 4 | 15 | 25 | 60 | 100 |
| 6 | PC | ELC3622 | Digital System Design | 3 | 0 | 0 | 3 | 15 | 25 | 60 | 100 |
| 7 | PC | ELC3922 | Communication Lab - I | 0 | 0 | 3 | 1.5 | 60 | | 40 | 100 |
| 8 | PC | ELC3952 | VLSI Design Lab | 0 | 0 | 3 | 1.5 | 60 | | 40 | 100 |

TOTAL CREDITS: 26

Semester 6:

| S.No. | Course Catag | Course No. | Course title | Contact Periods | | | Credits | Marks | | | Total |
|-------|--------------|------------|----------------------------------|-----------------|---|---|---------|-------------|---------|---------|-------|
| | | | | L | T | P | | Course-Work | Mid-Sem | End-Sem | |
| 1 | PC | ELC3122 | Analog Signal Processing | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 2 | PC | ELC3422 | Digital Communications | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 3 | PC | ELC3432 | Digital Signal Processing | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 4 | PC | ELC3942 | Communication Lab - II | 0 | 0 | 3 | 1.5 | 60 | | 40 | 100 |
| 5 | PC | ELC3962 | Embedded System Lab | 0 | 0 | 3 | 1.5 | 60 | | 40 | 100 |
| 6 | PSI | ELP3992 | Mini Project | 0 | 0 | 6 | 3 | 60 | | 40 | 100 |
| 7 | HM | MEH3452 | Engineering Economy & Management | 3 | 0 | 0 | 3 | 15 | 25 | 60 | 100 |
| 8 | DE | | Departmental Elective-1 | | | | 3 | 15 | 25 | 60 | 100 |

TOTAL CREDITS: 24

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Semester 7:

| S.No. | Course Catag | Course No. | Course title | Contact Periods | | | Credits | Marks | | | Total |
|-------|--------------|------------|---|-----------------|---|---|---------|-------------|---------|---------|-------|
| | | | | L | T | P | | Course-Work | Mid-Sem | End-Sem | |
| 1 | ESA | ELA4342 | Computer Architecture | 3 | 0 | 0 | 3 | 15 | 25 | 60 | 100 |
| 2 | PC | ELC4412 | Communication Networks | 3 | 1 | 0 | 4 | 15 | 25 | 60 | 100 |
| 3 | PC | ELC4922 | Digital Signal Processing Lab | 0 | 0 | 3 | 1.5 | 60 | | 40 | 100 |
| 4 | PSI | ELP4982 | Project Phase - I | 0 | 0 | 8 | 4 | 60 | | 40 | 100 |
| 5 | DE | | Departmental Elective-2 | | | | 3 | 15 | 25 | 60 | 100 |
| 6 | DE | | Departmental Elective-3 | | | | 3 | 15 | 25 | 60 | 100 |
| 7 | OE | | Open Elective-1 | | | | 3 | 15 | 25 | 60 | 100 |
| 8 | HM | | Elective Course under Humanities category | | | | 3 | 15 | 25 | 60 | 100 |

TOTAL CREDITS: 24.5

Semester 8:

| S.No. | Course Catag | Course No. | Course title | Contact Periods | | | Credits | Marks | | | Total |
|-------|--------------|------------|--------------------------------|-----------------|---|---|---------|-------------|---------|---------|-------|
| | | | | L | T | P | | Course-Work | Mid-Sem | End-Sem | |
| 1 | PSI | ELP4802 | Industrial Training/Internship | | | | 2 | | | 100 | 100 |
| 2 | PSI | ELP4992 | Project Phase - II | 0 | 0 | 8 | 4 | 60 | | 40 | 100 |
| 3 | DE | | Departmental Elective-4 | | | | 3 | 15 | 25 | 60 | 100 |
| 4 | DE | | Departmental Elective-5 | | | | 3 | 15 | 25 | 60 | 100 |
| 5 | OE | | Open Elective-2 | | | | 3 | 15 | 25 | 60 | 100 |

TOTAL CREDITS: 15

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List of Departmental Elective (DE) Courses:

| S.No. | Crs. No. | Course title | S.No. | Crs. No. | Course title |
|-------|----------|--------------|-------|----------|--------------|
|-------|----------|--------------|-------|----------|--------------|

SUMMARY:

| Category Code | Category Name | II-IV Year Credits | First Year Credits | Total Credits |
|---------------|------------------------------|--------------------|--------------------|---------------|
| DC | Departmental Core | 78 | 0 | 78 |
| DE | Departmental Elective | 15 | 0 | 15 |
| BS | Basic Sciences | 7 | 19 | 26 |
| ESA | Engg. Science and Arts | 12 | 19 | 31 |
| OE | Open Elective | 6 | 0 | 6 |
| HM | Humanities | 6 | 5 | 11 |
| PSI | Project, Seminar, Internship | 13 | 0 | 13 |
| TOTAL | | 137 | 43 | 180 |