

School of Engineering
Bachelor's in Technology in Electronics & Communication Engineering (2025-2026) onwards
(160 Credits)

| First Semester | | |
|-------------------------------|-------------------------------------|-----------|
| Code | Course Name | Cr |
| CHY1001 | Engineering Chemistry & Lab | 3 |
| MAS1001 | Calculus & Matrices | 3 |
| ECE1002 | Electronic Circuits | 3 |
| MEE1008 | Basic Mechanical Engineering | 3 |
| CSC1001 | Problem-Solving Using Computers | 3 |
| DOA1001 | Universal Human Values | 1 |
| CSC1130 | Problem-Solving Using Computers Lab | 1 |
| LLC1011 | Communication Skills | 2 |
| MEE1036 | Engineering Graphics | 1 |
| First Semester Credits | | 20 |

| Second Semester | | |
|--------------------------------|------------------------------------|-----------|
| Code | Course Name | Cr |
| PHY1001 | Engineering Physics & Lab | 4 |
| MAS1002 | Computational Mathematics | 3 |
| CHY1002 | Environmental Studies | 2 |
| EEE1001 | Electrical Technology | 2 |
| CIV1002 | Engineering Material and Mechanics | 3 |
| MEE1038 | Creativity & Innovation IDEA Lab | 2 |
| BIT1001 | Biology for Engineers | 2 |
| MEE1037 | MATLAB for engineers lab | 1 |
| DOA1002 | Wellness and Community Services | 1 |
| Second Semester Credits | | 20 |

| Third Semester | | |
|-------------------------------|--|-----------|
| Code | Course Name | Cr |
| MASXXXX | Probability and Statistics | 3 |
| XXXX | Principles of Management/Engineering Economics | 3 |
| ECE2104 | Data Structures and Algorithms | 3 |
| ECE2105 | Digital Electronics | 3 |
| ECE2106 | Electronics Devices & Circuits | 3 |
| ECE2107 | Circuits & Systems | 3 |
| ECE2108 | Computer Architecture & Processor | 3 |
| ECE2132 | Data Structures and Algorithms Lab | 1 |
| ECE2133 | Digital Electronics lab | 1 |
| ECE2134 | Electronics Devices & Circuits Lab | 1 |
| Third Semester Credits | | 24 |

| Fourth Semester | | |
|--------------------------------|--|-----------|
| Code | Course Name | Cr |
| XXXX | Principles of Management/Engineering Economics | 3 |
| ECE2203 | Analog Integrated Circuits | 3 |
| ECE2204 | System Design using HDL | 3 |
| ECE2205 | Digital Signal Processing | 3 |
| ECE2206 | Electromagnetic Field Theory | 3 |
| ECE2232 | Integrated Circuits Lab | 1 |
| ECE2233 | System Design using HDL Lab | 1 |
| ECE2234 | Digital Signal Processing Lab | 1 |
| ECE2271 | Project Based Learning - 1 | 3 |
| XXXXXX | Technical Writing | 2 |
| Fourth Semester Credits | | 23 |

| Fifth Semester | | |
|-------------------------------|------------------------------------|-----------|
| Code | Course Name | Cr |
| ECE3103 | Optical Communication | 3 |
| ECE3104 | Analog & Digital Communication | 3 |
| ECE3105 | Digital VLSI Design | 3 |
| ECE3106 | Microcontroller and Applications | 3 |
| ECE31XX | Program Elective 1 | 3 |
| ECE31XX | Program Elective 2 | 3 |
| ECE3132 | Optical Communication Lab | 1 |
| ECE3133 | Analog & Digital Communication Lab | 1 |
| ECE3134 | VLSI Design Lab | 1 |
| ECE3171 | Project Based Learning – 2 | 3 |
| Fifth Semester Credits | | 24 |

| Sixth Semester | | |
|-------------------------------|--------------------------------------|-----------|
| Code | Course Name | Cr |
| ECE3202 | Embedded & RTOS | 3 |
| ECE3203 | Antennas | 3 |
| ECE3204 | Control Theory | 3 |
| ECE32XX | Program Elective 3 | 3 |
| ECE32XX | Industry Elective | 3 |
| ECE3232 | Embedded & RTOS Lab | 1 |
| ECE3233 | Antenna Simulation & Measurement Lab | 1 |
| XXXXXX | Open Elective | 3 |
| XXXXXX | Open Elective | 3 |
| Sixth Semester Credits | | 23 |

| Seventh Semester | | |
|---------------------------------|---|-----------|
| Code | Course Name | Cr |
| ECE41XX | Program Elective 4 | 3 |
| ECE41XX | Program Elective 5 | 3 |
| ECE41XX | Program Elective 6 | 3 |
| ECE4171 | Internship (Industry/ Research/ Industry Certification) | 2 |
| XXXX | Open Elective | 3 |
| Seventh Semester Credits | | 14 |

| Eighth Semester | | |
|--------------------------------|------------------|-----------|
| Code | Course Name | Cr |
| ECE4271 | Capstone Project | 12 |
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| Eighth Semester Credits | | 12 |

School of Engineering
 Bachelor's in Technology in Electronics & Communication Engineering (2025-2026) onwards
 Honors (160 +18 Credits)

| First Semester | | |
|-------------------------------|-------------------------------------|-----------|
| Code | Course Name | L |
| CHY1001 | Engineering Chemistry & Lab | 3 |
| MAS1001 | Calculus & Matrices | 3 |
| ECE1002 | Electronic Circuits | 3 |
| MEE1008 | Basic Mechanical Engineering | 3 |
| CSCXXXX | Problem-Solving Using Computers | 3 |
| DOA1001 | Universal Human Values | 1 |
| CSCXXXX | Problem-Solving Using Computers Lab | 1 |
| LLC1011 | Communication Skills | 2 |
| MEE1036 | Engineering Graphics | 1 |
| First Semester Credits | | 20 |

| Second Semester | | |
|--------------------------------|------------------------------------|-----------|
| Code | Course Name | L |
| PHY1001 | Engineering Physics & Lab | 4 |
| MAS1002 | Computational Mathematics | 3 |
| CHY1002 | Environmental Studies | 2 |
| EEE1001 | Electrical Technology | 2 |
| CIV1002 | Engineering Material and Mechanics | 3 |
| MEE1038 | Creativity & Innovation IDEA Lab | 2 |
| BIT1001 | Biology for Engineers | 2 |
| MEE1037 | MATLAB for engineers lab | 1 |
| DOA1002 | Wellness and Community Services | 1 |
| Second Semester Credits | | 20 |

| Third Semester | | |
|-------------------------------|--|-----------|
| Code | Course Name | Cr |
| MASXXXX | Probability and Statistics | 3 |
| XXXX | Principles of Management/Engineering Economics | 3 |
| ECE2104 | Data Structures and Algorithms | 3 |
| ECE2105 | Digital Electronics | 3 |
| ECE2106 | Electronics Devices & Circuits | 3 |
| ECE2107 | Circuits & Systems | 3 |
| ECE2108 | Computer Architecture & Processor | 3 |
| ECE2132 | Data Structures and Algorithms Lab | 1 |
| ECE2133 | Digital Electronics lab | 1 |
| ECE2134 | Electronics Devices & Circuits Lab | 1 |
| Third Semester Credits | | 24 |

| Fourth Semester | | |
|--------------------------------|--|-----------|
| Code | Course Name | Cr |
| XXXX | Principles of Management/Engineering Economics | 3 |
| ECE2203 | Analog Integrated Circuits | 3 |
| ECE2204 | System Design using HDL | 3 |
| ECE2205 | Digital Signal Processing | 3 |
| ECE2206 | Electromagnetic Field Theory | 3 |
| ECE2232 | Integrated Circuits Lab | 1 |
| ECE2233 | System Design using HDL Lab | 1 |
| ECE2234 | Digital Signal Processing Lab | 1 |
| ECE2271 | Project Based Learning - 1 | 3 |
| XXXXXX | Technical Writing | 2 |
| Fourth Semester Credits | | 23 |

| Fifth Semester | | |
|-------------------------------|------------------------------------|-----------|
| Code | Course Name | Cr |
| ECE3103 | Optical Communication | 3 |
| ECE3104 | Analog & Digital Communication | 3 |
| ECE3105 | Digital VLSI Design | 3 |
| ECE3106 | Microcontroller and Applications | 3 |
| ECE31XX | Program Elective 1 | 3 |
| ECE31XX | Program Elective 2 | 3 |
| ECE3132 | Optical Communication Lab | 1 |
| ECE3133 | Analog & Digital Communication Lab | 1 |
| ECE3134 | Digital VLSI Design Lab | 1 |
| ECE3171 | Project Based Learning - 2 | 3 |
| *ECE3107 | *Display Technologies | 3 |
| Fifth Semester Credits | | 27 |

| Sixth Semester | | |
|-------------------------------|--------------------------------------|-----------|
| Code | Course Name | Cr |
| ECE3202 | Embedded & RTOS | 3 |
| ECE3203 | Antennas | 3 |
| ECE3204 | Control Theory | 3 |
| ECE32XX | Program Elective 3 | 3 |
| ECE32XX | Industry Elective | 3 |
| ECE3232 | Embedded & RTOS Lab | 1 |
| ECE3233 | Antenna Simulation & Measurement Lab | 1 |
| XXXXXX | Open Elective | 3 |
| XXXXXX | Open Elective | 3 |
| *ECE3205 | *VLSI DSP Architecture | 3 |
| Sixth Semester Credits | | 26 |

| Seventh Semester | | |
|---------------------------------|---|-----------|
| Code | Course Name | Cr |
| ECE41XX | Program Elective 4 | 3 |
| ECE41XX | Program Elective 5 | 3 |
| ECE41XX | Program Elective 6 | 3 |
| ECE4171 | Internship (Industry/ Research/ Industry Certification) | 2 |
| XXXX | Open Elective | 3 |
| *ECE4101 | *Mixed Signal Design | 3 |
| *ECE4102 | *Static Timing Analysis | 3 |
| Seventh Semester Credits | | 20 |

| Eighth Semester | | |
|--------------------------------|---------------------------|-----------|
| Code | Course Name | Cr |
| ECE4271 | Capstone Project | 12 |
| **ECE4272 | Honors (Research Project) | 6 |
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| Eighth Semester Credits | | 18 |

Industry Elective

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| 1. Project Based Learning-3 | 1. Industry Elective 1- RTL TO GDS II |
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Program Electives

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|---|---|---|
| <u>Program Elective 1</u> <ul style="list-style-type: none">• ECE3146:FPGA based System Design• ECE3147:Machine Learning• ECE3148:MEMS | <u>Program Elective 2</u> <ul style="list-style-type: none">• ECE3149:CAD for VLSI• ECE3150: Principles of Nanomaterials & Quantum dots• ECE3151:Microwave Engineering | <u>Program Elective 3</u> <ul style="list-style-type: none">• ECE3249:Design for Testability• ECE3250:Information Theory & Coding• ECE3251:Wireless Communication |
| <u>Program Elective 4</u> <ul style="list-style-type: none">• ECE4148:CyberPhysical System• ECE4149:Digital Image Processing• ECE4150:Internet of Things | <u>Program Elective 5</u> <ul style="list-style-type: none">• ECE4151:VLSI Physical Design• ECE4152:Mobile Communication• ECE4153:Low Power VLSI Design | <u>Program Elective 6</u> <ul style="list-style-type: none">• ECE4154:System Verilog for Verification• ECE4155:Introduction to Robotics• ECE4156:Fundamental of Quantum Optics |

**** Honors (Research Project) : Students pursuing Minor Specialization/ Honors will undertake 18 Credit Project in VIII Sem, related to specialization.**