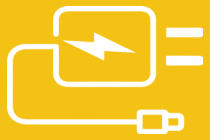

BACHELOR OF SCIENCE
Electronics Engineering

The Bachelor of Science in Electronics Engineering (BS ECE) program produces electronic engineers equipped with knowledge and skills that deal with the development and application of electronic devices and systems.

The program introduces general education courses, engineering mathematics and natural sciences to initiate the development of program outcomes and ensure that the graduates can understand and articulate the nature of their special roles in society and the impact of their work on the environment. Also, the program is designed to guarantee a certain breadth of knowledge in electronics engineering which enables the students to analyze and design solutions for complex engineering problems.

Lastly, the program provides experiences and opportunities in demonstrating achievements of outcomes in analysis, synthesis, design and relevant professional engineering practice with life-long learning skills.

The Program in Electronics Engineering builds competencies for these jobs:

- Electronics Design and Development Engineer
- Product Engineer
- Process/Manufacturing Engineer
- Integrated Circuit (IC) Design Engineer
- RF Engineer
- Hardware/Firmware/Software Engineer
- Electronic Test Engineer
- Telecommunications Field Service Engineer
- Transmission Engineer
- Instrumentation and System Control Engineer
- Robotics and Automation Engineer
- Building Management System Engineer
- Safety Engineer
- Graduate Studies, Researcher and Academician

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CORE COURSES

- Differential and Integral Calculus
- Chemistry for Engineers
- Physics for Engineers
- Physics 2
- Engineering Data Analysis
- Computer-Aided Drafting
- Engineering Economics
- Environmental Science and Engineering
- Material Science and Engineering
- Technopreneurship
- Circuits

PROFESSIONAL COURSES

- Computer Programming
- Electronic Technology
- Differential Equations with EEE Applications
- Advanced Engineering Mathematics for ECE
- Electromagnetics
- Microprocessor & Microcontroller Systems and Design
- Electronic Devices and Circuits
- Electronics Circuit Analysis and Design
- Signal, Spectra, Signal Processing
- Principles of Communication Systems
- Modulation and Coding Techniques
- Transmission Media, Antenna System and Design
- Data Communications
- Logic Circuits and Switching Theory
- Mechatronics
- Feedback and Control Systems
- Electronic Systems and Design
- ECE Laws, Contracts, Ethics and Safety
- Methods of Research
- Research Project

ELECTIVE COURSES

Microelectronics

- Digital Systems Design Using Verilog
- Analog Integrated Circuit Design
- Semiconductor Device Fundamentals
- Power Electronics

Instrumentation and Control

- Building Auxiliary Systems and Design
- Instrumentation and Measurement using LabVIEW
- Embedded Controller Design and Implementation
- Robotics
- Advanced Instrumentation and Control

Communications

- Microwave Engineering
- Trends in Wireless Communications
- Analog and Digital Communications Systems Design
- Antenna Design, Modelling and Simulation
- Electromagnetic Compatibility

INTERNSHIP AND SEMINAR COURSES

- Student Internship
- Seminars/Colloquium
- ECE Board Examination Review

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BS ELECTRONICS ENGINEERING