

# Learning Outcomes: Electronics Engineering Technology

---

## ❖ Electronics Specialization

- Maintain digital and analog devices and circuits.
- Analyze components associated with digital and analog electronic systems.
- Demonstrate proficiency in the use of electronic equipment and devices.
- Assist in the design, operation, and troubleshooting of electronic systems.
- Analyzing electronics devices and circuits using computer simulations.
- Solve electronic devices and systems using mathematical concepts.
- Accept professional and ethical responsibilities of the engineering technology profession.
- Communicate effectively in technical and non-technical environments

## ❖ Laser and Photonics Specialization

- Maintain laser and photonics components, devices and systems.
- Analyze fiber optics and optical detectors components associated with fiber optics systems.
- Demonstrate fundamental knowledge in the use of laser and photonics devices.
- Solve optical and photonics problems using mathematical concepts.
- Analyze digital and analog circuits using Electro-Optical devices.
- Demonstrate appropriate safety procedures.
- Assist in the design, operation, and troubleshooting of laser and photonics equipment and systems.
- Analyze laser and photonics devices/circuits using computer simulations.
- Accept professional and ethical responsibilities of the engineering technology profession.
- Communicate effectively in technical and non-technical environments

## ❖ Robotics and Simulation Specialization

- Analyze components associated with robotic, modeling and simulation, and electro-mechanical systems.
- Demonstrate proficiency in the use of robotic, simulation, and electro-mechanical equipment and devices.
- Analyze electronics/robotics devices and circuits using computer simulations.
- Assist in the design, operation, and troubleshooting of electronic/robotics systems.
- Apply basic mathematical and engineering concepts to technical problem solving.
- Accept professional and ethical responsibilities of the engineering technology profession.
- Communicate effectively in technical and non-technical environments.

### ❖ **Telecommunication and Wireless Specialization**

- Assist in the design, operation, and troubleshooting of telecommunications, and wireless systems.
- Demonstrate proficiency in the use of data and wireless communication networks, equipment and devices.
- Analyze components associated with digital and analog electronic/communication systems.
- Analyze basic wireless and communication circuits using computer simulations.
- Apply basic mathematical and engineering concepts to technical problem solving.
- Accept professional and ethical responsibilities of the engineering technology profession.
- Communicate effectively in technical and non-technical environments.

### ❖ **Basic Electronics Technician, College Credit Certificate**

- Assist in the design, operation, and troubleshoot of electronic systems.
- Demonstrate proficiency in the use of electronic equipment and devices.
- Solve electronic devices and systems using mathematical concepts.
- Analyze electronics devices and circuits using computer simulations.

### ❖ **Laser & Photonics Technician, College Credit Certificate**

- Assist in the design, operation, and troubleshooting of laser and photonics equipment and systems.
- Solve optical and photonics problems using mathematical concepts
- Maintain laser and photonics components, devices and systems.
- Construct digital and analog circuits using Electro-Optical devices.

### ❖ **Robotics and Simulation Technician, College Credit Certificate**

- Analyze components associated with robotic, modeling and simulation, and electro-mechanical systems.
- Demonstrate proficiency in the use of robotic, simulation, and electro-mechanical equipment and devices.
- Analyze electronics/robotics devices and circuits using computer simulations.
- Assist in the design, operation, and troubleshooting of electronic/robotics systems.

### ❖ **Wireless & IP Communication Technician, College Credit Certificate**

- Assist in the design, operation, and troubleshoot of telecommunications, and wireless systems.
- Demonstrate proficiency in the use of data and wireless communication networks, equipment and devices.
- Analyze components associated with digital and analog electronic/communication systems.