

# ILT 162 : SOLID STATE FUNDAMENTALS

This course provides instruction in basic solid state theory beginning with atomic structure and including devices such as diodes, bipolar transistors, field effect transistors, amplifiers, thyristors, operational amplifiers, oscillator and power supply circuits. Emphasis is placed on the practical application of solid-state devices, proper biasing and amplifier circuit analysis and the use of test equipment to diagnose, troubleshoot and repair typical solid-state device circuits. This course also provides the opportunity for students to apply the solid-state principles and theories learned in class in the laboratory setting. Emphasis is placed on the practical application of solid-state devices, proper biasing and amplifier circuit analysis and the use of test equipment to diagnose, troubleshoot and repair typical solid-state device circuits.

**Credits** 3

**Lab Hours** 4

**Theory Hours** 1