ENGT: ELECTRONICS TECHNOLOGY (ENGT)

ENGT 100. Introduction Engineering Tech. (2 Credits)
Introduction to professional field of engineering technology; professional ethics and responsibilities of technologists; application of hand calculator to engineering problem solving; systems of units and their conversions; engineering problem-solving techniques. Corequisite: MATH 150 Precalculus or equivalent.

ENGT 105. Engineering Problem Solving. (2 Credits)
Introduction to use of computers for solving engineering problems. Topics include: Computer Systems,Mathematics and Engineering Technology/Engineering Software Packages. Prerequisite: ENGT 100 Introduction to Engineering Technology.

ENGT 261. Fundamentals of ENGR Graphics. (3 Credits)
Introduction to basic 2D technical drawing and 3D modeling, including sketching, lines, points, geometry, orthographic projection, auxiliary views, section views, basic dimensioning, introduction to GD&T, visualization, basic drawing standards, and assembly. Student projects required (sketching, drawing, and CAD software)

ENGT 290. Intro to Elect/Electronics. (3 Credits)
A course in electrical circuits and electrical machines for students NOT majoring in electronics engineering technology. Topics include the following: resistors, dc circuits, magnetism, electromagnetic forces, ac voltage and current, inductance and capacitance, dc generators and motors, ac circuits, single-phase and three-phase circuits, transformers, 3-phase induction motors, synchronous motors and generators, single-phase motors, motor controls, and electrical distribution. Prerequisites: PHYS 106 Introduction to Physics II or equivalent; MATH 150 Precalculus or Equivalent.

ENGT 301. Computer Programming. (3 Credits)
Basic engineering methods of problem solving using C/C++ or other high-level programming 253 languages. Prerequisite: ENGT 105.

ENGT 321. Engineering Economy. (3 Credits)
Analysis of the time value of money as applied to the production environment, Economic analysis of engineering decisions. Determining rates of return on investments. Effects of inflation, depreciation and income taxes. Sensitivity, uncertainty, and risk analysis. Application of basic principles and tool of analysis using case studies. Prerequisite: MATH 260 Calculus I.

ENGT 401. Technical Internship. (3 Credits)
This course requires the student to work in a company for a semester. The internship provides practical experience in a closely supervised environment. A written Report is required at the end of the internship program. Nine contact hours per week. Prerequisite: Junior Standing and Consent of Instructor.

ENGT 420. Senior Project I. (3 Credits)
Student will design a project to illustrate basic knowledge and skills in one phase of his/her major field. Proposal development, library research, project management and computer usage are stressed. Prerequisite: Senior Standing and Consent of Instructor.

ENGT 421. Senior Project II. (2 Credits)
This portion of the project includes complete design specifications, computer analysis and/or simulation, library research, oral and written reports. It may also include construction, trouble-shooting and demonstration of a working prototype. Prerequisite: ENGT 420 Senior Project I.