



**ENGINEERING TECHNOLOGY ASSOCIATE IN SCIENCE DEGREE
PROGRAM DESCRIPTION**

The Engineering Technology (ET) Associate in Science (A.S.) degree program Pensacola State College (PSC), prepares students for employment or provides additional training for persons employed in manufacturing and high technology industries. The 18 credit hour technical core of this degree is closely aligned with the national Manufacturing Skill Standards Council (MSSC) Certified Production Technician (CPT) industry certification, and endorsed by the National Association of Manufacturers (NAM). Students who have already earned the MSSC-CPT will receive 15 articulated credit hours towards the Engineering Technology degree. The Engineering Technology Associate in Science degree program is fully transferable to four year degree granting institutions.

ENGINEERING TECHNOLOGY A.S. (60 Credits)

PENSACOLA STATE COLLEGE ET DEGREE SPECIALIZATIONS: Advanced Manufacturing, Electronics, Digital Manufacturing, Mechanical Design and Fabrication.

ET TECHNICAL CORE (18 credits)

The ET core provides technical fundamentals for the ten specializations tracks of the ET Degree that supports many manufacturing and high technology industry sectors.

The ET technical core includes: CAD, Electronics, Measurement, Manufacturing Processes, Quality and Safety.

COLLEGE CREDIT CERTIFICATES

COMPUTER NUMERICAL CONTROL- CNC COMPOSITE FABRICATOR/PROGRAMMER (12 credits)

This certificate program will prepare students to meet the industry-specific skills needed for a manufacturing environment. Computer numerical controlled (CNC) equipment operators set up and operate a variety of machines to produce precision parts and instruments. Machinists apply the knowledge of mechanics, mathematics, metal properties, layout, and machining procedures to fabricate parts and assemblies, repair machine tools, and maintain and troubleshoot industrial equipment.

COMPUTER NUMERICAL CONTROL (CNC) MACHINIST/FABRICATOR (12 credits)

This certificate program will prepare students to meet the industry-specific skills needed for a manufacturing environment where machines do much of the labor, the human touch is needed to ensure consistent productivity and high quality goods. Computer numerical controlled (CNC) equipment operators set up and operate a variety of machines to produce precision parts and instruments. Machinists apply the knowledge of mechanics, mathematics, metal properties, layout, and machining procedures to fabricate parts and assemblies, repair machine tools, and maintain and troubleshoot industrial equipment.

DIGITAL MANUFACTURING SPECIALIST(24 credits)

This certificate includes but is not limited to maintenance techniques, computer aided drafting/design skills, technical communications, maintenance and operation of various industrial components, quality control and testing, material handling protocols, and proper usage of tools and instrumentation.

ELECTRONICS-AIDE (12 Credits)

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the manufacturing career cluster.





ENGINEERING TECHNOLOGY SUPPORT SPECIALIST (18 credits)

This certificate prepare students for entry-level employment with an occupational title such as Engineering Support Specialist or Engineering Specialist to support engineering design, manufacturing processes and production, test and/or maintain product quality, or to provide supplemental training for persons previously or currently employed in these occupational areas.

MECHANICAL DESIGNER & PROGRAMMER (12 credits)

This certificate provides training for those who are interested in 3D Mechanical Design and 2D & 3D tool path Processing, CNC Machining, individuals with a degree, or those who are working towards a degree in engineering technology.

ROCOTICS & SIMULATION TECHNICIAN (12 credits)

This certificate prepares students to install, maintain and troubleshoot general robotic systems and simulations. The content also includes Program Logic Controller (PLC) programming and basic electronics competencies as identified by the electronics industry. Individuals are prepared in the areas of Robotic Applications, Modeling and Simulation, and Virtual Reality Environment. Graduates of this technical program will be prepared to enter advanced training and education in specialized Robotics and Simulation related fields.

PNEUMATIC, HYDRAULICS AND MOTORS FOR MANUFACTURING (12 credits)

This certificate provides a series of courses that focuses on the concepts, theories of operation, and equipment used in manufacturing and other industrial operations. The program covers the setup, operation, maintenance and troubleshooting of pneumatic, hydraulic and electromechanical components and systems, AC and DC circuit theory, circuit design and operation, circuit analysis and troubleshooting, and industrial processes and materials.

RAPID PROTOTYPING SPECIALIST (12 Credits)

This certificate prepares students for initial employment with an occupational title as rapid prototyping, digital manufacturing specialist, industrial designers, product designers, or mechanical drafters, technicians, or detailers in various specialized areas of industry that use digital design and modeling and rapid prototyping, direct digital manufacturing or to provide supplemental training for persons previously or currently employed in these occupations.

