ENGINEERING TECHNOLOGY ASSOCIATE IN SCIENCE DEGREE

PROGRAM DESCRIPTION

The Engineering Technology (ET) Associate in Science (A.S.) degree program at Gulf Coast State College (GCSC), 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)

GCSC ET SPECIALIZATIONS: Advanced Manufacturing, Alternative Energy, Digital Manufacturing, and Electronics.

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

AUTOMATION (15 Credits)
This certificate prepares student for engineering technology support positions dealing with PLCs, automation, and control systems in high tech production, manufacturing, distribution, and engineering research and development facilities.

COMPUTER NUMERICAL CONTROL MACHINIST- CNC (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 prepares students for specialized areas supporting engineering design, manufacturing processes and production, testing, and/or maintaining product quality.

MECHATRONICS (30 credits) new

The purpose of this certificate program is to prepare students for initial employment with an occupational title as Mechatronics Technician or System Integration Specialist in various specialized areas, or to provide supplemental training for persons previously or currently employed in these occupations. Mechatronics is a cutting edge field that combines the study of electronics, mechanical systems, control systems, and computers into one program.

PNEUMATICS, HYDRAULICS & MOTORS FOR MANUFACTURING (18 Credits)

This certification prepares students for entry level technical jobs in high tech production, manufacturing, distribution and engineering research and development facilities.

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.