ENGINEERING DESIGN TECHNOLOGY (A.S.)

ASSOCIATE OF SCIENCE

The Associate of Science in Engineering Design Technology can find their work in such diverse areas as designing, fabrication, prototyping, testing, and evaluating parts, assemblies, and systems in a variety of industries such as aerospace, defense, medical devices / artificial organs, chemicals and petrochemicals, robotics, manufacturing systems, automotive and general merchandise products. Graduates of this program can also continue to transfer/continue their pursue of 4 years of engineering technology, industrial technology or engineering degrees at a variety of schools. Typical job positions suitable for graduates of this program are design technician, evaluation technician, prototyping technician, junior engineer, systems integration technician, mechatronics technician, manufacturing associate, R&D technician, and similar positions.

Program Student Learning Outcomes

- Student use basic principles of statics and strength of materials, aided by computer simulations, to dimension parts.
- Student create and interpret 2D blueprints.
- Student create parametric parts and assembly drawings.
- Student learn how to do design for manufacturing, 3D printing, and concurrent engineering.
- Student learn how to make 2D assembly drawings.
- Student perform basic machine design.
- Student use and interpret GD&T.
- Student use AutoCAD to make 2D drawings and basic 3D models.

Program Requirements

Code Number	Course Title	Units
Core Courses		
ENGT 116	Blueprint Reading and Production	4.0
ENGT 117	Geometrical Dimensioning and Tolerancing and Model Based Definition	4.0
ET 101	Principles of Engineering Technology	3.0
ENGT 131	Design Fundamentals Including 3D Modeling	3.0
MTT 130	Quality Practices and Measurement	2.0
Subtotal		**16**
Specialty Tracks		
Select one of the following tracks:		**7.0-8.0**
2D and 3-D Design with Autocad Specialty Track		
ENGT 138	Introduction to Engineering Design Using Autocad (4)	
ARCH 213	Introduction to 3-D Computer Aided Drafting (4)	
3-D Parametric Modelling Design with Solidworks Specialty Track		
ENGT 259	Solidworks Introduction (4)	
ENGT 260	Advanced Modeling Using SolidWorks (4)	
3-D Parametric Modelling Design with Autodesk Inventor Specialty Track		
ENGT 103	Introduction to Engineering Design Using Inventor (3)	
ENGT 257	Advanced Modeling Using Inventor (4)	
Total Units		**23-24**

ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS

Students must complete the required major courses, the General Education requirements, and electives as needed. Students must earn a 2.0 grade point average and earn a grade of “C” or higher in major/emphasis courses.