Engineering Design Technology, A.A.S.

Program Code
AAS-ADMA-DDEM
CIP
15.0613
Type
A.A.S.

The Engineering Design Technology (EDT) degree path will augment students' learning by coupling theory-based instruction with hands-on applications using current software. The EDT path software includes but is not limited to AutoCAD and three levels of SOLIDWORKS. This degree comprises courses that emphasize application in industry standards, Geometric Dimensioning and Tolerance (GD & T), and ANSI standards to produce a complete technical drawing packet. EDT students will obtain the skills will by taking classes in innovation design, formal engineering design process, advanced critical thinking, and project management. This path allows additive manufacturing options; 3D printing, Insight, Materialise, NetFabb, Generative Design, Geomagic Design X, and GOM inspect software.

Portfolio class offers students training in professionalism; instruction includes resume building, networking in an internet world, interviews, etc. All students produce an electronic website portfolio for marketing their skillset.

Graduates will be qualified to seek positions in the following fields:

Engineering Technician, 3D Designer, 3D Solid Modeler, Manufacturing Technician, Prototyping Technician, Production Technician, Reverse Engineering Technician, SOLIDWORKS Designer, Engineering Design, Electronics Engineering Technicians, Mechanical Engineering Technicians r CAD Technician, Project Managers, Industrial Design technician, Part Inspection Technician, Additive Manufacturing Technician, 3D Prototyper, 3D Printing Operator, 3D Printer Specialists Manufacturing Technician, CAD/3D Design Drafter, Detailer, Engineering Design Drafter, Engineering Drawing Checker, 3D Printer Sales, and Instructors.

*The Engineering path student should take ADM 108, ADM 112, and DDT 111 in their first semester.

* CHM 257 is required for your science. *Contact Nina Bullock, DDT lead faculty instructor, 256-306-2813 or nina.bullock@calhoun.edu, in your first or second semester for a list of approved electives and a map for your course of study.

GENERAL EDUCATION CORE REQUIREMENTS

Item #	Title	Credits
ENG 101	English Composition I	3
	MTH 103 or higher	3-4
	Humanities/Fine Arts Elective (Excluding Speech and Foreign Language)	3
	Social & Behavioral Science Electives	3
CHM 257	Introduction to Material Science	4

APPLIED TECHNOLOGY CORE COURSE REQUIREMENTS

Item #	Title	Credits
ADM 101	Precision Measurement	3
ADM 104	Introduction to Thermal/Electrical Principles	3
ADM 105	Fluid Systems	3
ADM 106	Quality Control Concepts	3
ADM 107	CAD Concepts	3
ADM 111	Manufacturing Safety Practices	3

ENGINEERING COURSE REQUIREMENTS

Item #	Title	Credits
ADM 108	Introduction to 3D Modeling	3
ADM 112	Orientation to Additive Manufacturing	1
ADM 114	Design Innovation	3
ADM 210	Design for Manufacturing	3
ADM 255	Application of Design (Capstone)	3
DDT 111	Fundamentals of Drafting and Design Technology	3
DDT 124	Basic Technical Drawing	3
DDT 215	Geometric Dimensioning & Tolerancing	3
DDT 244	Advanced 3D Modeling	3
DDT 260	Portfolio	3
	Engineering Design Electives	4-6
	Total Credits	**66-69**