

# Engineering Design Technology

## Degree Type

Associate in Applied Science

### ASSOCIATE DEGREE IN APPLIED SCIENCE ENGINEERING DESIGN TECHNOLOGY 79 SEMESTER HOURS

The nature and purpose of the Engineering Design Technology (EDT) program at OCtech is to prepare graduates with demonstrated professional competence in converting engineering products, ideas, and solutions into 2D CAD drawings and 3D CAD parametric drawing models. Students produce 3D prototypes, allowing them to experience the capabilities of the manufacturing process.

Specific skills mastered by Engineering Design Technology majors include the production of mechanical, architectural, electrical and civil drawings and the selection and design of architectural and mechanical systems, including plumbing, piping, and process equipment. The program covers piping layouts, piping and instrumentation diagrams, process pipe drafting, building information modeling, surveying, and 3-D residential design. Instruction includes 2-D commercial building design, 3-D plant layout, electronic schematics and 3-D commercial building design. In addition, the program utilizes internship agreements to give students on-the-job training while attending classes. This provides students with a higher success rate when they enter the workforce.

The goal of the Engineering Design Technology program is to prepare professional entry-level CAD technicians to apply technical skills while creating working drawings and models from a variety of software applications. Graduates of the Engineering Design Technology program may work with engineering and with designers in a wide variety of disciplines, such as Building Information Modeling (BIM), piping design, machine tool design, and architectural design.

The Engineering Design Technology program is suitable for anyone desiring to enter the advanced manufacturing workforce or upgrade skills to improve earning capacity. The program offers flexible schedules and hybrid classes that are convenient for working individuals. Completion of the program will prepare students to become a design draftsman, tool designer, research assistant, engineering assistant, detailer, or a mechanical draftsman.

## Fall I

Course Number	Title	Credits
EGT-152	Fundamentals of CAD	3
EGT-110	Engineering Graphics I	4
EGT-151	Introduction to CAD	3
AET-101	Building Systems I	3
MAT-101	Beginning Algebra	3

## Spring I

Course Number	Title	Credits
EGT-115	Engineering Graphics II	4
MAT-175	Algebra and Trigonometry I	3
EGR-130	Engineering Technology Applications and Programming	3
PHY-201	Physics I	4
EGT-252	Advanced CAD	3

[MAT-102](#) may be taken in place of [MAT-175](#).

## Summer I

Course Number	Title	Credits
EGT-220	Structural & Piping Applications	4
EGT-259	Advanced Architectural CAD	3
CIM-131	Computer Integrated Manufacturing	3
PHY-202	Physics II	4
EGT-172	Electronic Drafting	2

[MTT-250](#) may be taken in place of [CIM-131](#).

## Fall II

Course Number	Title	Credits
EGT-251	Principles of CAD	3
EGT-265	CAD/CAM Applications	3
ENG-160	Technical Communications	3
EGT-245	Principles of Parametric CAD	3
EGT-258	Applications of CAD	3

## Spring II

Course Number	Title	Credits
EGT-225	Architectural Drawing Applications	4
PSY-103	Human Relations	3
HSS-105	Technology and Culture	3
EGR-194	Statics and Strength of Materials	4
IDS-112	Employability Skills for Career	1

[HSS-101](#) may be taken in place of [HSS-105](#).

[EGT-152](#), [AET-101](#), [EGR-130](#), [CIM-131](#) are Project Lead the Way courses

<b>Total Credits</b>	<b>79</b>
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