



# 3D Prototyping

Certificate (27 SCH\*)

\*Semester Credit Hour 8/2020

## First Semester - 12 SCH

DFTG 1305 - Technical Drafting  
DFTG 1309 - Basic Computer-Aided Drafting  
DFTG 1325 - Blueprint Reading and Sketching  
DFTG 2319 - Intermediate Computer-Aided Drafting

## Second Semester - 15 SCH

DFTG 1345 - Parametric Modeling and Design  
DFTG 2302 - Machine Drafting  
DFTG 2312 - Technical Illustration and Presentation  
DFTG 2332 - Advanced Computer-Aided Drafting  
DFTG 2340 - Solid Modeling/Design

## Marketable Skills

Math Skills; manage time and materials; acquire and evaluate information; interpret and communicate information; oral and written communications skills; computer skills; teamwork; cultural diversity; apply technology to work; creative thinking; decision making; problem solving; self-management; Visualization; AutoCAD Operator; Blueprint Reading; Use of Civil Design Software-Civil 3D; Use of Architectural Design Software - Revit; Use of Mechanical Design Software - Solidworks; Use of Survey Instruments; Use of Design Tools and Scales; 3D Modeling; 3D printing; Parametric Modeling; Building Information Modeling.

## Program Outcomes

- Operate a 2D CAD Design program.
- Read and interpret blueprints.
- Design and document in 3D with a parametric modeling program.
- Create construction and manufacturing documents using various CAD programs.
- Operate and maintain a 3D printer.

## High School Endorsements

Business and Industry

## Additional Educational Opportunities

Associate in Applied Science, Bachelor of Arts in Applied Science

## Career Opportunities

CAD technician; Architectural CAD designer; Mechanical CAD designer; Civil CAD designer; Pipe CAD designer; Electrical CAD designer; Surveyor CAD technician; Graphics designer; Rapid prototyping technician; Parametric modeler; Building information modeler; Landscape designer technician; Interior designer technician.