



# Computer-Aided Design

AAS (60 SCH\*)

\*Semester Credit Hour 10/2021

## First Semester - 15 SCH

PSYC 1300 - Learning Framework  
DFTG 1309 - Basic Computer-Aided Drafting  
DFTG 1305 - Technical Drafting  
DFTG 2319 - Intermediate Computer-Aided Drafting  
DFTG 1325 - Blueprint Reading and Sketching

## Second Semester - 15 SCH

DFTG 1345 - Parametric Modeling and Design  
DFTG 2312 - Technical Illustration and Presentation  
DFTG 2302 - Machine Drafting  
DFTG 2340 - Solid Modeling/Design  
SPCH 1321 - Business & Professional Communication

## Third Semester - 15 SCH

DFTG 1317 - Architectural Drafting - Residential  
DFTG 2321 - Topographical Drafting  
DFTG 2331 - Advanced Technologies in Architectural Design and Drafting  
DFTG 2328 - Architectural Drafting - Commercial  
ENGL 1301 - Composition I

## Fourth Semester - 15 SCH

DFTG 1358 - Electrical/Electronic/Drawing  
DFTG 2323 - Pipe Drafting  
DFTG 2338 - Final Project - Advanced Drafting  
MATH 1314 - College Algebra  
DRAM 1310 - Introduction to Theater

## Marketable Skills

Autodesk AutoCAD Civil 3D; Autodesk Revit; Bentley MicroStation; Trimble SketchUp Pro; Adobe Creative Suite; C; Microsoft.NET Framework; Adobe Illustrator; Adobe Photoshop; ESRI ArcGIS software; ESRI ArcView; Geomechanical design analysis GDA software; Topographic map software; Microsoft PowerPoint; Produce drawings, using computer-assisted drafting systems; Draft plans and detailed drawings for structures, installations, and construction projects; Coordinate structural, electrical, and mechanical designs and determine a method of presentation to graphically represent building plans; Analyze building codes, by-laws, space and site requirements, and other technical documents and reports to determine their effect on architectural designs

## 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

Bachelor of Arts in Applied Science

## Career Opportunities

Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects. Use knowledge of building materials, engineering practices, and mathematics to complete drawings. Architectural Designer, Architectural Drafter, Architectural Draftsman, Civil Drafter, CAD Designer, CADD Drafter, Drafting Technician, Draftsman, Draftsperson, Rapid prototyping technician, Parametric modeler.