## Computer-Aided Drafting and Design

Science, Technology, Engineering and Mathematics (STEM) Division

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### Program Options:

**AAS – Computer-Aided Drafting and Design**

- **Certificate** – Computer-Aided Drafting and Design
- **Certificate** – Mechanical Computer-Aided Drafting and Design
- **Enhanced Skills Certificate** – CADD
- **MSAA** – AutoCAD

High-tech industries are constantly creating new career opportunities in exciting, highly specialized fields. The degree opportunities in Computer-Aided Drafting and Design (CADD) provide both an educational foundation in computer-aided design and insight into current industry practices. Students in Collin’s intensive CADD hands-on training program are taught the skills a designer, CADD operator, architect, or engineer needs for successful CADD operations.

Students planning to transfer to a college or university should check with the Collin academic advisor prior to beginning this program to verify course transferability.

### AAS – Computer-Aided Drafting and Design

60 credit hours

**FIRST YEAR**

**First Semester**

- **DFTG 1305** Technical Drafting
- **DFTG 1309** Basic Computer-Aided Drafting
- **ENGL 1301** Composition I
- **MATH 1314** College Algebra
- **SPCH 1321** Business and Professional Communication
  (See other Speech Options)

**Second Semester**

- **CETT 1303** DC Circuits
- **DFTG 2319** Intermediate Computer-Aided Drafting
- **DFTG 2328** Architectural Drafting - Commercial
- **MATH 1316** Plane Trigonometry
- **Summer**
  - **DFTG 1333** Mechanical Drafting

**SECOND YEAR**

**First Semester**

- **DFTG 1317** Architectural Drafting - Residential
- **GEN ED** Select one Social / Behavioral Sciences General Education course
- **GEN ED** Select one Humanities / Fine Arts General Education course
- **PHYS 1401** College Physics I

**Second Semester**

- **DFTG 2381** Cooperative Education - Drafting and Design Technology / Technician, General
- **DFTG 2432** Advanced Computer-Aided Drafting (Capstone)
- **ENTC 1323** Strength of Materials
- **PHYS 1402** College Physics II
- **ELECTIVE * | Elective (3 credit hours): ARCE-1352, ARCE-2352, BUSI-1301, DFTG-1345, DFTG-1371, DFTG-1372, DFTG-2300, DFTG-2321, DFTG-2335, ENGL-2311, or GIS-1411 |

* Please refer to [http://www.collin.edu/academics/programs/index.html](http://www.collin.edu/academics/programs/index.html) for the most current information.
Certificate – Computer-Aided Drafting and Design

28 credit hours

**FIRST YEAR**
- DFTG 1305  Technical Drafting
- DFTG 1309  Basic Computer-Aided Drafting

**SECOND YEAR**
First Semester
- DFTG 1317  Architectural Drafting - Residential
- ELECTIVE*
- ELECTIVE*

Second Semester
- DFTG 2328  Intermediate Computer-Aided Drafting
- DFTG 2432  Advanced Computer-Aided Drafting (Capstone)
- ELECTIVE *

* Electives (9 credit hours): ARCE-1352, ARCE-2352, DFTG-1333, DFTG-1345, DFTG-1372, DFTG-2300, DFTG-2321, DFTG-2335, DFTG-2350, DFTG-2381, or GISC-1411

Certificate – Mechanical Computer-Aided Drafting and Design

30 credit hours

**FIRST YEAR**
First Semester
- DFTG 1305  Technical Drafting
- DFTG 1309  Basic Computer-Aided Drafting

Second Semester
- DFTG 2319  Intermediate Computer-Aided Drafting
- ENTC 1323  Strength of Materials
- ELECTIVE*

* Elective (3 credit hours): Any ARCE, DFTG, ENGR, or ENTC course not listed above

**SECOND YEAR**
First Semester
- DFTG 1371  Mechanical Drafting - Fundamentals of Sheetmetal Design
- DFTG 2350  Geometric Dimensioning and Tolerancing
- ELECTIVE *

Second Semester
- DFTG 1345  Parametric Modeling and Design
- DFTG 2335  Advanced Technologies in Mechanical Design and Drafting (Capstone)

* Elective (3-4 credit hours): ARCE-1352, DFTG-1317, DFTG-1372, DFTG-2321, DFTG-2328, DFTG-2381, or DFTG-2432

Enhanced Skills Certificate – CADD

9 credit hours

The Enhanced Skills Certificate in Computer-Aided Drafting and Design provides additional training in specific job skills that supplement those acquired within the AAS degree program. Prerequisite: Completion of the AAS in Computer-Aided Drafting and Design.

**First Semester**
- DFTG 1333  Mechanical Drafting
- DFTG 1345  Parametric Modeling and Design
- ELECTIVE*

* Elective (3 credit hours): Any ARCE, DFTG, ENGR, or ENTC course not listed above

Please refer to http://www.collin.edu/academics/programs/index.html for the most current information.
MSAA – AutoCAD

13 credit hours

This program prepares students to design and draft in 2 dimensions and 3 dimensions. Also, students will be taught how to customize AutoCAD to enhance productivity.

Prerequisite: Basic computer skills. Having working knowledge of geometry will be a plus for students.

**FIRST YEAR**

**First Semester**
DFTG 1309 Basic Computer-Aided Drafting

**Second Semester**
DFTG 2319 Intermediate Computer-Aided Drafting

**SECOND YEAR**

**First Semester**
DFTG 1305 Technical Drafting

**Second Semester**
DFTG 2432 Advanced Computer-Aided Drafting (Capstone)

*Note: Some of the courses in these award programs may require prerequisites. Please check the course descriptions.*