Academic Plan - Certificate Computer Aided Drafting - Engineering Graphics Technology

# Catalog Year: 2020/2021

The Computer Aided Drafting certificate prepares the students for advanced levels of computer aided design within industry, utilizing the latest hardware and software releases. The certificate may be completed within one year. This certificate prepares students to perform 2D and 3D design including customization and AutoLISP programming with their CAD system. Students may choose from an area of design concentration including architecture, mechanical design or interior design.

# Total Credits: 31

# A - Required Courses

3 Credits, CAD 101 - Computer Aided Drafting/2D I, available fall spring summer

3 Credits, CAD 102 - Computer Aided Drafting/2D II, available fall spring summer

3 Credits, CAD 201 - Computer Aided Drafting / Custom, available fall spring

3 Credits, CAD 202 - Computer Aided Drafting / 3D, available fall spring

3 Credits, CAD 240 - Inventor OR CAD 255 - Solidworks, available fall spring

3 Credits, CAD 249 - AutoLISP Programming, available fall

3 Credits, CIS 118 - Intro to PC Applications, available fall spring summer

3 Credits, EGT 101 - Mechanical Design I, available fall spring

3 Credits, EGT 102 - Mechanical Design II, available fall spring

4 Credits, MAT 108 - Technical Mathematics\*, available fall spring summer

# Pre-Requisites, Co-Requisites, and Recommendations

CAD 101 - Computer Aided Drafting/2D I

Requirement: Students must have Windows File Management skills to create file folders, rename files, delete

CAD 102 - Computer Aided Drafting/2D II

Co-Requisite: CAD 101 - Computer Aided Drafting/2D I OR CAD 105 - AutoCAD for Interiors

Requirement: Students must have Windows File Management skills to create file folders, rename files, delete

CAD 201 - Computer Aided Drafting / Custom

Pre-Requisite: CAD 102 - Computer Aided Drafting/2D II

CAD 202 - Computer Aided Drafting / 3D

Pre-Requisite: CAD 102 - Computer Aided Drafting/2D II

CAD 249 - AutoLISP Programming

Pre-Requisite: CAD 102 - Computer Aided Drafting/2D II

CIS 118 - Intro to PC Applications

Requirement: Students must have Windows file management skills to create file folders, rename files, delete

EGT 101 - Mechanical Design I

C0-Requisite: CAD 101 - Computer Aided Drafting/2D I

EGT 102 - Mechanical Design II

Pre-Requisite: CAD 102 - Computer Aided Drafting/2D II

Pre-Requisite: EGT 101 - Mechanical Design I

# Notes

Course availability is subject to change.

Refer to 20/21 catalog for specific requirements and important information about this certificate.

Recommended courses may be listed above for certain electives; consult with the Academic Advising Office (advising@arapahoe.edu or 303.797.5664) for additional elective recommendations.

\*This course requires college level readiness as measured by Accuplacer, ACT, or SAT scores; approved high school course work that is less than five years old; or successful completion of appropriate college-readiness course.

# Graduation Requirements

To graduate, students must apply for graduation [here](http://www.arapahoe.edu/departments-and-programs/graduation) by the deadline and meet all degree requirements.

# RECOMMENDED COURSE SEQUENCE FULL-TIME TRACK

## Year 1: Fall

3 Credits, CAD 101 - Computer Aided Drafting/2D I

3 Credits, CAD 102 - Computer Aided Drafting/2D II

3 Credits, CAD 240 - Inventor OR CAD 255 - Solidworks

3 Credits, CIS 118 - Intro to PC Applications

3 Credits, EGT 101 - Mechanical Design I

## Year 1: Spring

3 Credits, CAD 201 - Computer Aided Drafting / Custom

3 Credits, CAD 202 - Computer Aided Drafting / 3D

3 Credits, EGT 102 - Mechanical Design II

4 Credits, MAT 108 - Technical Mathematics

## Year 2: Fall

3 Credits, CAD 249 - AutoLISP Programming

# RECOMMENDED COURSE SEQUENCE PART-TIME TRACK

## Year 1: Fall

3 Credits, CAD 101 - Computer Aided Drafting/2D I

3 Credits, CAD 102 - Computer Aided Drafting/2D II

3 Credits, EGT 101 - Mechanical Design I

## Year 1: Spring

3 Credits, CAD 240 - Inventor OR CAD 255 - Solidworks

3 Credits, EGT 102 - Mechanical Design II

## Year 1: Summer

3 Credits, CIS 118 - Intro to PC Applications

4 Credits, MAT 108 - Technical Mathematics

## Year 2: Fall

3 Credits, CAD 201 - Computer Aided Drafting / Custom

3 Credits, CAD 202 - Computer Aided Drafting / 3D

3 Credits, CAD 249 - AutoLISP Programming