# COMPUTER AIDED DESIGN (CAD): CS

**Certificate of Specialization | 16 credit hours minimum**

**Area of Interest: Advanced Manufacturing, Industrial Occupations, and Transportation**

**Program Website (https://stlcc.edu/programs-academics/pathways/a-m-i-o-t/computer-aided-design/)**

**Academic Advising (https://stlcc.edu/admissions/advising/)**

## Program Description:

The Computer Aided Design (CAD) Certificate of Specialization prepares a CAD operator to interpret data from multiple sources, apply traditional drafting skills, utilize operating system software, and follow industrial practices and company procedures related to CAD work. Graduates will be able to efficiently perform all tasks related to producing final drawings and CAD models.

**Locations.** This program is offered in its entirety at Florissant Valley.

**Related Programs.** The Engineering Technology and Manufacturing Department offers an associate in the following area:

**Engineering Technology, Associate in Applied Science (http://catalog.stlcc.edu/programs/engineering-technology-aas/)**

**Cost of Attendance**. For more information on cost of attendance visit **MoSCORES (https://scorecard.mo.gov/Search/)**.

**Program Career and Salary Information.** Pursuant to Missouri HB 1606 (2018), information regarding the number of credit hours, program length, employment rate, wage data, and graduates employed in careers related to their program of study at St. Louis Community College can be found at the following URL: **https://scorecard.mo.gov/scorecard/ (https://www.google.com/url/?q=https://scorecard.mo.gov/scorecard/&sa=D&ust=1555536894857000&usg=AFQjCNG1xf3E_i2lO96zEytILO-s5xaJCQ)**. Search using School / Program "St. Louis Community College" and choose the degree or credential type of interest.

The following limitations to the data apply: Information provided is based on the most recent cohorts available. Typically, most recent cohorts for wage and completion data are six years prior to the current academic year. Time to complete a program of study varies depending on the number of credit hours students earn per semester.

**Interested in this program?** Start the enrollment process by visiting the **Apply to STLCC (https://www.stlcc.edu/admissions/apply-to-stlcc/)** page.

## At the completion of the program, students are expected to:

1. create two-dimensional (2D) CAD drawings.
2. create three-dimensional (3D) CAD models.
3. produce drawings that comply with industry standards.
4. incorporate and extract design properties in CAD files.
5. manage CAD files.
6. interpret mechanical and electrical drawings.

| Code | Title | Credit Hours |
|---|---|---|
| **Program Requirements** | | |
| GE 101 | Technical Computer Applications | 3 |
| EGR 100 | Engineering Drawing | 3 |
| EGR 133 | Introduction to AutoCAD I | 2 |
| GE 135 | Blueprint Reading for Engineering Technicians | 2 |
| EGR 141 | Introduction to AutoCAD II | 2 |
| Select one course: | | |
| ME 230 | Introduction to 3-D Solid Modeling for Design | 4 |
| or EGR 230 | Introduction to Revit | |
| **Total Credit Hours** | | **16** |

## Part-Time Academic Plan

**PLEASE NOTE**: If you originally enrolled at STLCC prior to Fall 2025, you may need to view an **archived catalog (http://catalog.stlcc.edu/archived-catalogs/)** for your correct program requirements. Please speak with an advisor or the program coordinator for more information.

| Code | Title | Hours | Prerequisites | Milestones/Notes |
|---|---|---|---|---|
| **First Year** | | | | |
| **Fall** | | | | |
| EGR 100 | Engineering Drawing | 3 | Reading Proficiency | Exploratory Course, Gateway Course, Critical Course |
| EGR 133 | Introduction to AutoCAD I | 2 | Reading Proficiency | |
| GE 135 | Blueprint Reading for Engineering Technicians | 2 | Reading Proficiency | |
| GE 101 | Technical Computer Applications | 3 | Reading Proficiency | |
| | **Credit Hours** | **10** | | |
| **Spring** | | | | |
| ME 230 or EGR 230 | Introduction to 3-D Solid Modeling for Design or Introduction to Revit | 4 | EGR 100 with a minimum grade of "C" or Department approval and Reading Proficiency | |

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|---|---|---|---|---|
| EGR 141 | Introduction to AutoCAD II | 2 | EGR 133 with a minimum grade of "C" and Reading Proficiency | |
| | **Credit Hours** | **6** | | |
| | **Total Credit Hours** | **16** | | |

**Critical Courses:** Critical courses are most important to a student's declared major and most strongly predict later success in the major. A critical course requires a minimal grade to progress to higher-level courses.

**Exploratory Courses:** Exploratory courses are first-semester courses that introduce the program and career field.

**Gateway Courses:** Gateway courses are courses in many career pathways that must be completed before progression in higher-level courses. These may be the same as critical and/or exploratory courses.

*Click on the hyperlinked course number to view additional information about the course.

**Students completing a course that has been assigned a MOTR number may transfer that course to any public institution in Missouri. Those who complete CORE 42 requirements will have that verification on their transcript.

*** It is your responsibility to verify that the courses listed above will transfer to the four-year institution of your choice. Maximize your transfer credits/classes by meeting with an academic advisor.