

# COMPUTER AIDED DESIGN (CAD)

## Certificate of Specialization



CAD specialists work directly with engineering teams and take direction to generate two-dimensional drawings and three-dimensional models using computer aided design (CAD) software. They create original drawings from hand sketches and design specifications from concept to completion. CAD designers are employed by a wide variety of engineering, design and manufacturing firms.

CAD operators are able to interpret data from multiple sources, apply traditional drafting skills, utilize operating system software, follow industrial practices and company procedures related to CAD work, and efficiently perform all related tasks to produce final drawings and CAD models.

### ABOUT THE PROGRAM

The Certificate of Specialization in Computer Aided Design (CAD) at St. Louis Community College is an 18-credit hour program that provides students with an understanding of the principles of drafting and the skills to use a variety of drafting, design and solid modeling software programs.

Coursework includes basic computer aided drafting classes along with exposure to 2-D and 3-D classes. Students may elect to supplement their basic required courses with additional classes in computer aided design.

### OPPORTUNITIES IN THIS FIELD

The U.S. Department of Labor, Bureau of Labor Statistics reports employers will increasingly look for drafters with a strong background in fundamental drafting principles, a high level of technical sophistication and the ability to apply knowledge to a broader range of responsibilities.

### SALARY INFORMATION

Individual salaries vary by geographic location, the CAD operator's education and experience, and the type and size of the employer. The median annual salary for a CAD operator in various disciplines ranges from \$40,000 to \$46,000.

### TUITION

Currently, district residents pay \$88 per credit hour. Additional fees may apply to some programs and courses.

### CONTACT INFORMATION

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YOU CAN EARN THIS DEGREE AT:

 Florissant Valley



Expanding Minds • Changing Lives

# COMPUTER AIDED DESIGN (CAD)

## Certificate of Specialization

Florissant Valley



Forest Park



Meramec



Wildwood



### GETTING STARTED AT STLCC

#### 1) Apply for Admission

Online, by mail/fax or in person at any campus.

#### 2) Apply for Financial Aid

Apply for grants, scholarships, loans or work-study.

#### 3) Complete Assessment

You may need to complete an assessment for placement in the proper level courses.

#### 4) Get Advised

Meet with an advisor or career counselor. Attend a College Registration/Enrollment Workshop (CREW).

#### 5) Get Connected

Access your MySTLCC ID and set up a secure password. Activate your student e-mail and log in to Banner Self-Service.

#### 6) Register for Classes

Online, in person or via mail/fax.

#### 7) Pay for Classes

Payment plan option is available.

#### 8) Prepare for Class

Purchase books, attend New Student Success Orientation and get your STLCC OneCard student photo ID.

Visit [www.stlcc.edu/Get\\_Started](http://www.stlcc.edu/Get_Started) for details and important links.

#### Non-discrimination Statement

St. Louis Community College is committed to non-discrimination and equal opportunities in its admissions, educational programs, activities and employment regardless of race, color, creed, religion, sex, sexual orientation, national origin, ancestry, age, disability, genetic information or status as a disabled or Vietnam-era veteran and shall take action necessary to ensure non-discrimination.

#### Accommodations Statement

St. Louis Community College is committed to providing access and reasonable accommodations for individuals with disabilities. If you have accommodation needs, please call the Access office at the campus where you are registering at least six weeks prior to the start of class to request accommodations. Documentation of disability may be required.

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### CURRICULUM

#### Suggested Sequence

##### First Semester

	Credit Hours
EGR:100 Engineering Drawing	3
GE:101 Technical Computer Applications	3
<b>Total Credits</b>	<b>6</b>

##### Second Semester

	Credit Hours
2-D CAD course (e.g. EGR:140 Computer Aided Drafting & Design)	3
Technical elective from the Engineering & Technology Department	3
<b>Total Credits</b>	<b>6</b>

##### Third Semester

	Credit Hours
3-D CAD course (e.g. EGR:139 3-D AutoCAD)	2
CAD Applications course (e.g. ME:230 Introduction to 3-D Solid Modeling for Design)	4
<b>Total Credits</b>	<b>6</b>

**Certificate Total Credits 18**

#### Optional CAD Coursework

##### 2-D CAD Courses:

	Credit Hours
EGR:104 Electronic Drafting	2
EGR:133 Introduction to AutoCAD I	2
EGR:140 Computer Aided Drafting and Design I	3
EGR:141 Introduction to AutoCAD II	2

##### 3-D CAD Courses:

	Credit Hours
*EGR:147 Introduction to Engineering Design	3
EGR:139 3-D AutoCAD with Autoshade	2
ME:230 Introduction to 3-D Solid Modeling for Design	4

##### CAD Applications Courses:

	Credit Hours
ME:230 Introduction to 3-D Solid Modeling for Design	4
EGR:255 Advanced Computer Aided Drafting	3
*GE:122 Engineering Design and Development	3

\*Credit from high school Project Lead the Way (PLTW) courses does apply toward this certificate.