

Computer Aided Drafting (CAD) Design Technologies

100% ONLINE

OVERVIEW

Complex products all start with a plan. By receiving a degree from Minnesota State College Southeast's online CAD drafting program, you will learn how to translate ideas at the product conception stage into physical work plans that launch the design process. As a CAD designer, you will be an essential part of any technical team.

Employment opportunities in the CAD drafting field abound, and a degree from Southeast's online CAD drafting program will prepare you with the specific skills employers are looking for. Solidworks, Inventor, Google SketchUP, Autocad - they're all here, and you'll learn how to apply these industry-standard software programs on a project basis just as you will on the job.

Our highly experienced CAD drafting faculty will teach you the tools of the trade so that you can be successful in your career on day one. And with their industry connections, MSC Southeast instructors will help you find an internship to gain invaluable real-world experience.

Have a busy schedule or just like to work at your own pace? Southeast's online CAD drafting program is flexible enough to accommodate your busy lifestyle, but rigorous enough to ensure you develop the skills employers demand.

MAJORS WITHIN

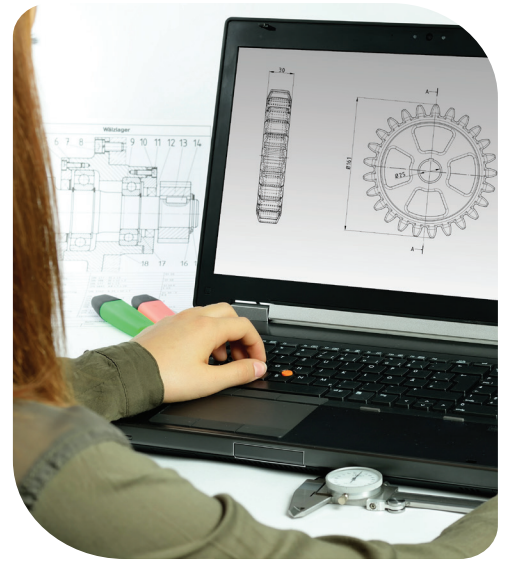
Computer Aided Design (CAD) Drafting Technologies	AAS	60 credits
Computer Aided Design (CAD) Drafting Technologies	Diploma	33 credits
Computer Aided Drafting (CAD) Technologies	Certificate	9 credits
Basic Drafting Technologies	Certificate	16 credits

Estimated costs for each major including tuition, books and supplies are posted on southeastmn.edu under Academics > Academic Programs by Degree.

PROGRAM OUTCOMES

Program graduates will be able to:

1. Complete industry standard assembly drawings using 2d and 3d CAD.
2. Complete industry standard part drawings using 2d and 3d CAD.
3. Calculate mating part conditions to guarantee part fits.
4. Define and apply proper design materials.
5. Define and apply proper standard part vendors.
6. Communicate verbally and in written forms.



PROGRAM HIGHLIGHTS

Courses are taught using state of the art CAD 3D Parametric software

Excellent training for self-starters

CAD Drafters/Designers are in constant demand

The courses are focused on developing your skills for employment

Instructors are licensed because of their experience in the drafting and design field

CAREER OPPORTUNITIES

Mechanical Designers
Plant Designers
Mechanical Drafters
CAD Technicians

JOB PLACEMENT

Nearly 100%

Computer Aided Design (CAD) Drafting Technologies

Fall Start Sample Program Plan

BOLD = Courses in bold depict the part-time course sequence

***Required credit totals may vary based on suggested technical elective choices**

Computer Aided Design (CAD) Drafting Technologies - AAS

Course No.	Course Name	Credits
Fall		
MDAD1250	Print Reading for CAD Design	3
MDAD1204	Autocad	3
MDAD1251	Manufacturing Processes for CAD Design	3
MDAD1255	CAD Drawing Using Free Software	3
COMM1420	Social Media Communications	3
	[Tech Elective]	3
Semester total		15

Spring

	Tech Elective	3
MDAD1241	Solidworks	3
MDAD1252	Working Drawings 1 for CAD Design	3
MDAD1216	Mechanisms	3
ENGL1215	College Writing I	3
Semester total		15

Fall

	Tech Elective	3
MDAD1253	Working Drawings 2 for CAD Design	3
MDAD1254	Mold Design for CAD Design	3
MDAD1206	Geometric Tolerances	3
MATH1220	College Algebra	3
Semester total		15

Spring

MDAD1256	Design Project 1 for CAD Design	3
MDAD1257	Design Project 2 for CAD Design	3
SOCS1110	Introduction to Sociology	3
HUMA1125	Moral Problems	3
PHYS1215	Physics	4
Semester total		16

Credit total shown - 61*
Total Required Credits - 60

Note: Liberal Arts classes can be taken during the summer session as well

Computer Aided Design (CAD) Drafting Technologies - Diploma

Course No.	Course Name	Credits
Fall		
MDAD1250	Print Reading for CAD Design	3
MDAD1204	Autocad	3
MDAD1251	Manuf. Processes for CAD Design	3
MDAD1255	CAD Drawing Using Free Software	3
ENGL1215	College Writing I	3
Semester Total		15

Summer

COMM1420	Social Media Communications	3
	[Technical Elective]	3
Semester Total		3

Spring

	Tech Elective	3
MDAD1241	Solidworks	3
MDAD1252	Working Drawings 1 for CAD Design	3
MDAD1216	Mechanisms	3
MATH1220	College Algebra	3
Semester Total		15

Total Required Credits - 33

Basic Drafting Technologies - Certificate

Course No.	Course Name	Credits
First Semester (Fall)		
MDAD1250	Print Reading for CAD Design	3
MDAD1204	Autocad	3
MDAD1251	Manuf. Processes for CAD Design	3
Semester Total		9

Second Semester (Spring)

MDAD1241	Solidworks	3
MDAD1252	Working Drawings 1 for CAD Design	3
	[Tech Elective]	3
MDAD1216	Mechanisms [Tech Elective]	3
Semester Total		9

Credit total shown - 18*

Total Required Credits - 16

Computer Aided Drafting (CAD) Technologies - Certificate

Course No.	Course Name	Credits
Fall		
MDAD1250	Print Reading for CAD Design[Elective]	3
MDAD1204	Autocad	3
Semester Total		6

Spring

MDAD1241	Solidworks	3
Semester Total		3

Total Required Credits - 9

Computer Aided Design (CAD) Drafting Technologies

Spring Start Sample Program Plan

BOLD = Courses in bold depict the part-time course sequence

***Required credit totals may vary based on suggested technical elective choices**

Computer Aided Design (CAD) Drafting Technologies AAS

Course No.	Course Name	Credits
Spring		
MDAD1241	Solidworks	3
MDAD1250	Print Reading for CAD Design	3
MDAD1252	Working Drawings 1 for CAD Design	3
MDAD1204	Autocad	3
MATH1220	College Algebra	3
Semester total		15

Summer

COMM1420	Social Media Communications [Tech Elective]	3
Semester Total		3

Fall

MDAD1253	Working Drawings 2 for CAD Design	3
MDAD1254	Mold Design for CAD Design	3
MDAD1206	Geometric Tolerances	3
MDAD1251	Manufacturing Processes for CAD Design	3
MDAD1255	CAD Drawing Using Free Software	3
Semester total		15

Spring

MDAD1256	Design Project 1 for CAD Design	3
MDAD1257	Design Project 2 for CAD Design	3
MDAD1216	Mechanisms	3
	Tech Elective	3
PHYS1215	Physics	4
Semester total		16

Fall

	Tech Elective	3
ENGL1215	College Writing I	3
SOCS1110	Introduction to Sociology	3
HUMA1125	Moral Problems	3
Semester total		12

Credit total shown - 61*

Total Required Credits - 60

Note: Liberal Arts classes can be taken during the summer session as well

Computer Aided Design (CAD) Drafting Technologies Diploma

Course No.	Course Name	Credits
Spring		
MDAD1241	Solidworks	3
MDAD1250	Print Reading for CAD Design	3
MDAD1252	Working Drawings 1 for CAD Design	3
MDAD1204	Autocad	3
ENGL1215	College Writing I	3
Semester Total		15

Summer

COMM1420	Social Media Communications	3
Semester Total		3

Fall

	Tech Elective	3
MDAD1251	Manuf. Processes for CAD Design	3
MDAD1253	Working Drawings 2 for CAD Design	3
MDAD1255	CAD Drawing Using Free Software	3
MATH1220	College Algebra	3
Semester Total		15

Total Required Credits - 33

Basic Drafting Technologies - Certificate

Course No.	Course Name	Credits
Spring		
MDAD1241	Solidworks	3
MDAD1250	Print Reading for CAD Design	3
MDAD1252	Working Drawings 1 [Tech Elective]	3
Semester Total		9

Fall

MDAD1251	Manuf. Processes for CAD Design	3
MDAD1204	Autocad	3
	Tech Elective]	3
Semester Total		9

Credit total shown - 18*

Total Required Credits - 16

Computer Aided Drafting (CAD) Technologies - Certificate

Course No.	Course Name	Credits
Spring starts can finish in one semester		
MDAD1204	Autocad	3
MDAD1241	Solidworks	3
MDAD1250	Print Reading for CAD Design [Suggested tech elective]	3
Semester Total		9

Total Required Credits - 9