

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 in Solidworks, Inventor, and 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, 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.

MAJOR WITHIN

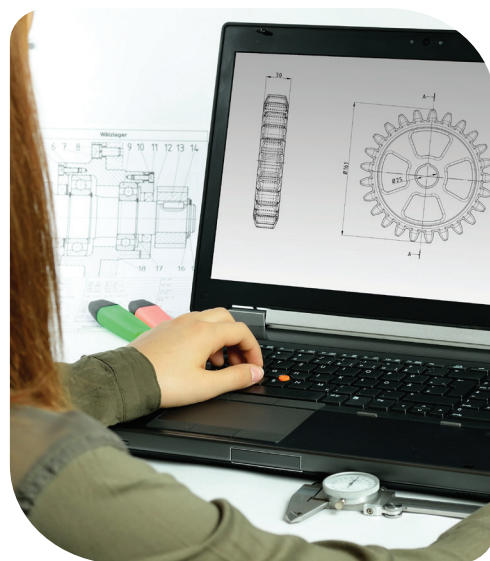
Computer Aided Design (CAD) Drafting Technologies	AAS	60 credits
Computer Aided Design (CAD) Drafting Technologies	Diploma	33 credits
Computer Aided Drafting (CAD) Technologies	Certificate	9 credits
Basic Drafting Technologies	Certificate	16 credits

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%

southeastmn.edu



A member of the Minnesota State system

Minnesota State College Southeast is an affirmative action/equal opportunity educator and employer.

This document is available in an alternative format upon request. If you need an accommodation, please call 507-453-2700.

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 Semester		
MDAD1250	Print Reading for CAD Design	3
MDAD1204	Autocad	3
MDAD1251	Manufacturing Processes for CAD Design	3
MDAD1205	Inventor	3
Tech Elective	COMM1420 Social Media Communications suggested	3
Semester total		15

Spring Semester

Tech Elective	MDAD1255 CAD Drawing Using Free Software Suggested	3
MDAD1241	Solidworks	3
MDAD1252	Working Drawings 1 for CAD Design	3
MDAD1216	Mechanisms	3
Goal 1	Written and Oral Communications	
	ENGL1215 College Writing I suggested	3
Semester total		15

Fall Semester

Tech Elective		2
MDAD1253	Working Drawings 2 for CAD Design	3
MDAD1254	Mold Design for CAD Design	3
MDAD1206	Geometric Tolerances	3
Goal 4	MATH1220 College Algebra suggested	3
Semester total		14

Spring Semester

MDAD1256	Design Project 1 for CAD Design	3
MDAD1257	Design Project 2 for CAD Design	3
Goal 5	History, Social and Behavioral Sciences	
	SOCS1110 Intro to Sociology suggested	3
Goal 6	Humanities and Fine Arts	
	HUMA1125 Moral Problems suggested	3
PHYS1215	Physics	4
Semester total		16

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 Semester		
MDAD1250	Print Reading for CAD Design	3
MDAD1204	Autocad	3
MDAD1205	Inventor	3
MDAD1251	Manuf. Processes for CAD Design	3
Goal 1	Written and Oral Communications	
	ENGL1215 College Writing I suggested	3
Semester Total		15

Spring Semester

Tech Elective	MDAD1255 CAD Drawing Using Free Software Suggested	3
MDAD1241	Solidworks	3
MDAD1252	Working Drawings 1 for CAD Design	3
MDAD1216	Mechanisms	3
Goal 4	MATH1220 College Algebra suggested	3
Semester Total		15

Summer Term

Tech Elective	COMM1420 Social Media Communications suggested	3
Semester Total		3

Total Required Credits - 33

Basic Drafting Technologies - Certificate

Course No.	Course Name	Credits
Fall Semester		
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
Tech Elective	MDAD1252 Working Drawings 1 for CAD Design suggested	3
Tech Elective	MDAD1216 Mechanisms suggested	3
Semester Total		9

Credit total shown - 18*

Total Required Credits - 16

Computer Aided Drafting (CAD) Technologies - Certificate

Course No.	Course Name	Credits
Fall Semester		
Tech Elective	MDAD1250 Print Reading for CAD Design suggested	3
MDAD1204	Autocad	3
Semester Total		6
Spring Semester		
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 Semester		
MDAD1241	Solidworks	3
MDAD1250	Print Reading for CAD Design	3
MDAD1252	Working Drawings 1 for CAD Design	3
MDAD1204	Autocad	3
Goal 4	Math 1220 College Algebra suggested	3
Semester total		15
Summer Term		
Tech Elective	COMM1420 Social Media Communications suggested	3
Semester Total		3
Fall Semester		
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
MDAD1205	Inventor	3
Semester total		15
Spring Semester		
MDAD1256	Design Project 1 for CAD Design	3
MDAD1257	Design Project 2 for CAD Design	3
MDAD1216	Mechanisms	3
PHYS1215	Physics	4
Tech Elective		2
Semester total		15
Fall Semester		
Tech Elective		3
Goal 1	Written and Oral Communications ENGL1215 College Writing I suggested	3
Goal 5	History, Social and Behavioral Sciences SOCS1110 Intro to Sociology suggested	3
Goal 6	Humanities and Fine Arts HUMA1125 Moral Problems suggested	3
Semester total		12
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 Semester		
MDAD1241	Solidworks	3
MDAD1250	Print Reading for CAD Design	3
MDAD1252	Working Drawings 1 for CAD Design	3
MDAD1204	Autocad	3
Goal 1	Written and Oral Communications ENGL1215 College Writing I suggested	3
Semester Total		15
Summer Term		
Tech Elective	COMM1420 Social Media Communications suggested	3
Semester Total		3
Fall Semester		
Tech Elective		3
MDAD1251	Manuf. Processes for CAD Design	3
MDAD1253	Working Drawings 2 for CAD Design	3
MDAD1205	Inventor	3
Goal 4	Math 1220 College Algebra suggested	3
Semester Total		15
Total Required Credits - 33		

Basic Drafting Technologies - Certificate

Course No.	Course Name	Credits
Spring Semester		
MDAD1241	Solidworks	3
MDAD1250	Print Reading for CAD Design	3
Tech elective	MDAD1252 Working Drawings 1 suggested	3
Semester Total		9
Fall Semester		
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
Tech Elective	MDAD1250 Print Reading for CAD Design suggested	3
Semester Total		9
Total Required Credits - 9		