

COMPUTER AIDED DRAFTING DIPLOMA

Purpose: The one-year CAD Technology program is designed to prepare students for a technical career using Computer Aided Drafting (CAD) tools and techniques. The focus of the curriculum is mechanical drafting using **SolidWorks**. Students will use CAD to draw parts, assemblies, make detail drawings, and create 3Dprinted "prototypes". Students follow drafting standards and learn basic concepts of design. The CAD courses are a combination of online coursework and "hands on" labs taught using the latest release of **SolidWorks**. Excellent employment opportunities exist within southeast Minnesota. Graduates can advance into positions such as designers, inspectors, associate engineers, drafting supervisors, or an application engineer in CAD sales.

Implementation: Fall 2023

Award

Computer Aided Drafting Diploma..... 36 credits

*** The course sequence for this program begins in fall only and is intended for full-time enrollment.**

RECOMMENDED FULL-TIME COURSE SEQUENCE

Not all courses are scheduled every semester. See course schedule: <https://eservices.minnstate.edu/registration/search/basic.html?campusid=306>.

Semester 1		Semester 2	
CAD 1039 SolidWorks	4 cr	CAD 1149 Manufacturing Processes & Practices	3 cr
CAD 1225 Dimensioning and Tolerancing	3 cr	CAD 2323 Advanced Dimensioning & Design	4 cr
CAD 1226 Drafting for Industry	4 cr	CAD 2258 Product & Machine Design	4 cr
CAD 1120 Sheetmetal and Weldments	2 cr	CAD 2400 Reverse Engineering & Rapid Prototyping	2 cr
CAD 1040 Technical Illustration for Industry	2 cr	CAD 2460 Surfacing & Advanced Modeling	2 cr
CAD 1151 3DPrinting, Additive Manufacturing, And Prototyping	2 cr	CAD 2500 CAD Software & Standards	2 cr
		CAD 2550 CAD Internship	2 cr
Total Credits	17	Total Credits	19

Course descriptions can be found at: <https://www.rctc.edu/academics/courses/course-descriptions>.