RCTC PROGRAM PLAN

COMPUTER AIDED DRAFTING TECHNOLOGY

Diploma

I. PROFESSIONAL OR TECHNICAL CREDITS.....36 CREDITS

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

TOTAL .....36 CREDITS

PROGRAM OUTCOMES:

Upon completion of the Computer Aided Drafting Technology program at RCTC, students will achieve the following outcomes:

- Demonstrate professional competence using Computer Aided Drafting (CAD).
- Think critically and creatively.
- Work productively and cooperatively with others.
- Complete detailed quality work up to industry (ANSI) standards.
- Demonstrate competency creating prototype parts.

ADDITIONAL NOTES:

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

Revised: 1/31/2023