RCTC PROGRAM PLAN

COMPUTER AIDED DRAFTING TECHNOLOGY
Associate in Applied Science

I. MINNESOTA TRANSFER CURRICULUM (MNTC)/
   GENERAL EDUCATION REQUIREMENTS..............................................................16 CREDITS
   GOAL 1: WRITTEN AND ORAL COMMUNICATION .............................................7 CR
   COMM 1114, Fundamentals of Public Speaking, 3 cr
   OR
   COMM, Interpersonal Communication, 3 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr

   GOAL 2: CRITICAL THINKING MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   GOAL 3: NATURAL SCIENCES and/or
   GOAL 4: MATHEMATICS/LOGICAL REASONING..............................................3 CR
   Credits from MNTC Goal 3 AND/OR credits from MNTC Goal 4

   GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES ............3 CR
   Credits from MNTC Goal 5

   GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY ...........3 CR
   Credits from MNTC Goal 6

II. PROGRAM CORE REQUIREMENTS.................................................................56 CREDITS
   CAD 1039, 3D CAD, 4 cr
   CAD 1120, Welding Technology, 2 cr
   CAD 1123, Technical Illustration, 2 cr
   CAD 1145, Manufacturing Materials and Processes I, 3 cr
   CAD 1147, Manufacturing Materials and Processes II, 3 cr
   CAD 1150, CAD Data Communications, 3 cr
   CAD 1200, Product Data Management, 1 cr
   CAD 1220, Engineering Drafting, 3 cr
   CAD 1221, Technical Drafting, 3 cr
   CAD 1222, Dimensioning and Tolerancing, 2 cr
   CAD 1323, Basic Dimensioning, 3 cr
   CAD 2323, Advanced Dimensioning, 3 cr
   CAD 2324, Special Projects I, 2 cr
   CAD 2358, Machine Design, 5 cr
   CAD 2400, Reverse Engineering and Rapid Prototyping, 2 cr
   CAD 2424, Special Projects II, 2 cr
   CAD 2335, Working Drawings and Design, 3 cr
   CAD 2440, CAD Portfolio, 2 cr
   CAD 2458, Product Design, 5 cr
   CAD 2460, Surfacing and Advanced Modeling, 3 cr

TOTAL.................................................................................................................72 CREDITS
ADDITIONAL NOTES:
PURPOSE: The CAD Technology major is designed to prepare students for a technical career using Computer Aided Drafting tools and techniques. CAD drafters turn concepts, ideas, and rough sketches into mechanical prints then “prototypes” or finished parts can be fabricated, designed or repaired. The curriculum primarily covers the mechanical disciplines of drafting and design. The CAD courses are taught in state-of-the-art facilities featuring the latest release of SolidWorks. Employment opportunities exist in large and small industries. Graduates can advance into positions such as designers, associate engineers, inspectors, supervisors, sales and purchasing personnel.

Revised: 08/01/2012
Implementation: Spring 2013