

# Computer Aided Drafting Technology Associate in Applied Science Degree Program

- I. Minnesota Transfer Curriculum Courses..... 18 Credits**
- Goal 1: Written and Oral Communication (CM) ..... 7 cr**  
 ENGL 1117\* (or higher) Reading and Writing Critically I, 4 cr  
 SPCH 1114, Fundamentals of Public Speaking **OR** SPCH 1130, Interpersonal Communication, 3 Cr
- Goal 2: Critical Thinking (CT) MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS**
- Goal 3: Natural Sciences (NS) and/or**  
**Goal 4: Mathematics/Logical Reasoning (MA) . ..... 3 cr**  
 Credits from Biology, Chemistry, Earth Science, or Physics that meet the competencies of Goal 3 of the Minnesota Transfer Curriculum **And/Or** credits from Mathematics that meet the competencies of Goal 4 of the Minnesota Transfer Curriculum
- Goal 5: History and the Social and Behavioral Sciences (SS) ..... 3 cr**  
 Credits from courses in Anthropology\*, Economics\*, Geography\*, History\*, Political Science, Psychology\* and Sociology\* that meet the competencies of Goal 5 of the Minnesota Transfer Curriculum
- Goal 6: Humanities – Arts, Literature, and Philosophy (HA)..... 5 cr**  
 Credits of courses from Art, English Literature\*, Foreign Culture, Humanities\*, Journalism, Music, Philosophy\*, or Theatre that meets the Competencies of Goal 6 of the Minnesota Transfer Curriculum
- (Note: Those students wishing to transfer should take courses from two different areas).**  
**\*Honors equivalent courses available**

**II. Program-related, technical, or professional courses ..... 54 Credits**

CAD 1230	CAD Data Management	1 cr
CAD 1234	CAD I	3 cr
CAD 1235	CAD II	3 cr
CAD 1224	Engineering Drafting I	2 cr
CAD 1223	Technical Drafting I	2 cr
CAD 1225	Engineering Drafting II	2 cr
CAD 1229	Technical Drafting II	2 cr
CAD 1120	Welding Technology	2 cr
CAD 1123	Technical Illustration	2 cr
CAD 1145	Mfg Mat'l and Processes I	2 cr
CAD 1147	Mfg Mat'l and Processes II	4 cr
CAD 1323	Basic Dimensioning	3 cr
CAD 2323	Advanced Dimensioning	3 cr
CAD 2339	Three-Dimensional CAD	4 cr
CAD 2358	Machine Design	5 cr
CAD 2335	Working Drawings and Design	3 cr
CAD 2423	Hyd/Pneumatic Drafting	2 cr
CAD 2424	Special Projects	2 cr
CAD 2458	Product Design	5 cr
CAD 2440	CAD Portfolio	2 cr

**TOTAL ..... 72 Credits**

**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 releases of **AutoCAD** and **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.

Implemented: Spring 2008; Revised: 9/13/2007; Reviewed: 02/2008

**For More Information,**  
**Greg Laughland at 507-280-3172**  
[greg.laughland@roch.edu](mailto:greg.laughland@roch.edu)  
**OR Pam Benson at 507-280-3137**  
 e-mail: [pam.benson@roch.edu](mailto:pam.benson@roch.edu)  
 Or Web Page: <http://www.acd.roch.edu/cadtech>