

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE – VIRGINIA/EVELETH  
COURSE OUTLINE

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Course Title: Computer Aided Drafting  
Quarter Course Prefix and Number:  
Semester Course Prefix and Number: EIAT 2295

Approval Date:  
Revision Date: 7/25/2012

Number of Credits: 2      Number of Lecture Credits: 0      Number of Lab Credits: 2  
Semester(s) Offered:      Number of Studio/Discussion Credits:  
Class Size: 24  
Negotiated by AASC on  
(Date)\_\_\_

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**Course Purpose Code:**

- \_\_\_\_\_ 0 – Developmental Courses
- \_\_\_\_\_ 1 – Non-Transferable General Studies
- X   2 – Technical course related to career programs
- \_\_\_\_\_ 3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
- \_\_\_\_\_ 4 - Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
- \_\_\_\_\_ 5 – Course which is intended to fulfill Minnesota Transfer Curriculum (MNTC) requirements.
- \_\_\_\_\_ 9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

**Catalog Description:**

This course covers the fundamentals of computer-aided drafting. Basic drawing commands are covered and understanding is reinforced through hands on drawing exercises. The content will be focused on drawing electronic, electrical, loop sheets and P&ID diagrams. The proper procedures for file management and printing/plotting of completed work are also covered.

**Prerequisites and/or recommended entry skills/knowledge:**

Course Prerequisite(s): None  
Reading Prerequisite: None  
Composition Prerequisite: None  
Mathematics Prerequisite: None

**Career Programs and Transfer Majors Accessing this Course:**

Electrical and Industrial Automation Technology

**Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:**

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|---------------------------------------------------------|-------------------------------------------|
| 0. <u>  X  </u> None                                    | 6. _____ The Humanities and Fine Arts     |
| 1. _____ Communications                                 | 7. _____ Human Diversity                  |
| 2. _____ Critical Thinking                              | 8. _____ Global Perspectives              |
| 3. _____ Natural Sciences                               | 9. _____ Ethical and Civic Responsibility |
| 4. _____ Mathematical/Logical Reasoning                 | 10. _____ People and the Environment      |
| 5. _____ History and the Social and Behavioral Sciences |                                           |

**Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:**

Following the completion of this course the student will be able to demonstrate the ability to:

- 1.) Examine Creating Geometry
- 2.) Examine Changing Geometry
- 3.) Examine Organizing Objects with Layers
- 4.) Examine Creating, Placing, and Managing Symbols
- 5.) Examine Dimensioning Drawings
- 6.) Examine Placing Text in Drawings
- 7.) Examine Scaling, Layout, and Plotting
- 8.) Examine Sharing Drawing Files
- 9.) Examine Importing and Exporting Data
- 10.) Examine Software Customization

**Possible student assessment methods:**

Lab assignments, workbooks, drawing projects, and tests.

**Use of instructional technology (includes software, interactive video and other instructional technologies):**

Computers, CAD software, videos, workbooks, texts, and reference guides.

**A one-paragraph summary or outline of the major course content:**

See "Learning Outcomes" above.

**Additional special information (special fees, directives on hazardous materials, etc.)**

Laptop Computer Lease

**Approvals:**

<b>Body</b>	<b>Representative Signatures</b>	<b>Date</b>
Curriculum Committee		
Faculty Association		
Academic Affairs Standards Committee		
Chief Academic Officer		

Distribution: Original – Administrative Office

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Revised February 10, 2004