

MESABI RANGE COLLEGE

Course Outline

Course Title: Computer Aided Design

Semester Course Prefix and Number: ECM 2295

Old Quarter Course Prefix and Number:

Submitted By: Scott Norcia

Approval Date:

Revision Date: 9/6/16

Number of Credits: 2

Number of Lecture Credits: 0

Semester(s) Offered: Spr

Number of Lab Credits: 2

Number of Lab Hours: 4

Class Size: 24

Number of Studio/Demonstration/Internship Credits:

Negotiated by AASC on:
(date)

Course Purpose Code:

_____ 0 – Developmental Courses

_____ 1 – Non-transferable

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 MNTC (e.g. computer science, health, physical education)

_____ 5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements or intended for transfer.

_____ 9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

Catalog Description:

The course is a "Hybrid" or "Blended" course with the majority of the learning environment traditional in-class lectures and hands-on lab work which also includes Web-based learning activities to complement face-to-face work. This course covers the fundamentals of computer-aided design. 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 Controls and Maintenance Diploma

Electrical Controls and Maintenance AAS

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

(Notes: No more than two goals may be met by any one course. AASC review and the Chief Academic Officer's approval are required.)

0. None

1. _____ Communications

2. _____ Critical Thinking

3. _____ Natural Sciences

4. _____ Mathematical/Logical Reasoning

5. _____ History and the Social and Behavioral Sciences

6. _____ The Humanities and Fine Arts

7. _____ Human Diversity

8. _____ Global Perspectives

9. _____ Ethical and Civic Responsibility

10. _____ People and the Environment

Learning Outcomes: (including any relevant competencies listed in the Minnesota Transfer Curriculum)

Upon completion of this course, the student will be able to:

- 1.) Utilize the AutoCAD user interface.
- 2.) Utilize the basic AutoCAD drawing commands.
- 3.) Create two dimensional electrical diagrams.
- 4.) Manage AutoCAD drawing files.
- 5.) Layout and Plot AutoCAD drawings.

Student Assessment Methods:

Lab assignments, worksheets, papers, and tests.

Use of Instructional Technology: (includes software, interactive video and other instructional technologies):

Power Point Software and AutoCAD LT2004

Additional Special Information: (special fees, directives on hazardous materials, etc.)

Laptop Computer Lease and Required Tool List

Transfer Information: (Please list colleges/majors that accept this course in transfer.)

None

Affiliated Mesabi Range College Courses and Programs:

Approvals:

Body	Representative Signatures	Date
Faculty Association		
Academic Affairs Standards Committee		
Chief Academic Officer		

Distribution: Original – Instructional Services
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