

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE

Course Outline

Course Title: Introduction to Engineering
Semester Course Prefix and Number: ENGR 1010
Old Quarter Course Prefix and Number:

Submitted By: Jason Slattery
Approval Date: April 2013
Revision Date: April 2013

Number of Credits: 3
Semester(s) Offered: Fall
Class Size: 40
Number of Lecture Credits: 2
Number of Lab Credits: 1
Number of Lab Hours: 2
Number of Studio/Demonstration/Internship Credits:

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)
x 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:

This course will provide students with an understanding of the different fields of engineering (Civil, Mechanical, Electrical, etc) and professionalism in engineering (ethics, moral, and teamwork). Students will learn about an engineering design process from their work on project(s).

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:

All engineering transfer students.

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. x 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. demonstrate their understanding of an engineering design process through a class project.
2. understand the different disciplines in engineering.
3. understand the need for professionalism (ethics, teamwork, etc) in engineering.
4. gain problem-solving skills.

Student Assessment Methods:

The final grade will be determined based on active participation, graded assignments, engineering design project(s), and potentially a final exam

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

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

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

University of Minnesota; University of Minnesota-Duluth; Minnesota State University, Mankato; St. Cloud State University; Michigan Technological University; North Dakota State University; University of North Dakota all accept for engineering majors.

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
Copies: Transfer Specialist, Originating Faculty Member, Records
Revised: December 2012