

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE

Course Outline

Course Title: Technical Math
Semester Course Prefix and Number: GEDM 1165
Old Quarter Course Prefix and Number: GSDM 1507

Submitted By: Math Dept.
Approval Date:
Revision Date: May 2014

Number of Credits: 2
Semester(s) Offered: All
Class Size: 30
Negotiated by AASC on:
(date) Spring 2014

Number of Lecture Credits: 2
Number of Lab Credits: 0
Number of Studio/Demonstration/Internship Credits: 0
Number of Lab Hours: 0

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:

This course includes a problem solving approach to technical applications using geometric and algebraic methods.

Prerequisites and/or recommended entry skills/knowledge:

Course Prerequisite(s):

Reading Prerequisite:

Composition Prerequisite:

Mathematics Prerequisite:

Career Programs and Transfer Majors Accessing this Course:

PAS, Graphics, IMT, Carpentry

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.)

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

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

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

- Generate equivalent algebraic expressions; use algebraic properties to evaluate and manipulate expressions
- Represent real-world mathematical situations using algebraic and geometric methods
- Compose and decompose two- and three-dimensional figures; use decomposition to determine the perimeter, area, surface area and volume of various figures
- Calculate measurements of plane and solid geometric figures; understand that quantities associated with physical measurements must be assigned units; apply such units correctly in expressions, equations and problem solutions that involve measurements; and convert between measurement systems.
- Apply properties of geometric figures, using trigonometric functions to solve real-world and mathematical problems

Student Assessment Methods:

Attendance/participation in class
In-class assignments
Homework assignments
Quizzes/tests

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

A scientific calculator is strongly recommended.

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

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

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