

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE

Course Outline

Course Title: College Algebra
Semester Course Prefix and Number: MATH 1521
Old Quarter Course Prefix and Number:

Submitted By: Math Dept.
Approval Date:
Revision Date: December 2012

Number of Credits: 4
Semester(s) Offered:
Class Size:
Negotiated by AASC on:
(date)

Number of Lecture Credits: 4
Number of Lab Credits:
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)
- 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 study of Algebra includes: real numbers, first degree equations and inequalities with word problem applications and linear graphs, second degree equations and inequalities in one and two variables with the quadratic formula and graphs, relations, functions, absolute value, variation problems, exponential and logarithmic functions with applications, polynomial functions, the theory of polynomial equations, and complex numbers, systems of equations and inequalities, and conic sections.

Prerequisites and/or recommended entry skills/knowledge:

Course Prerequisite(s):

Reading Prerequisite:

Composition Prerequisite:

Mathematics Prerequisite: Placement by CPT score or a grade of "C" or higher in MATH 0096 (or previous course MATH 0094), or instructor's consent.

Career Programs and Transfer Majors Accessing this Course:

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. Curriculum Committee review and the Chief Academic Officer's approval are required.)

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| 0. <input 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 checked="" 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:

The students will:

- Demonstrate proficiency in applying the concepts of functions.
- Demonstrate proficiency in finding solutions of linear, quadratic, rational, radical, exponential, higher order and logarithmic equations.
- Demonstrate proficiency in graphing polynomial, exponential, logarithmic, rational and radical functions.
- Demonstrate proficiency in graphing conic sections.

Student Assessment Methods:

- Graded homework
- Unit tests
- Final Exam

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

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

Transfer Information: (Please list colleges/majors that accept this course in transfer.)
This course transfers to any college that has a college algebra class in their curriculum.

Course Outline Revision History:

Approvals:

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

Distribution: Original – Instructional Services
Copies: Transfer Specialist, Originating Faculty Member, Records
Revised: March 2010