

# Bemidji State University

## MATH 1180: Trigonometry

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: \*.\*

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: Goal 04 - Mathematical/Logical Reasoning

Trigonometric functions, identities, equations, and applications.

Prerequisites: Successful completion of Math 1170, or 3 years of high school math (including two years of algebra), and an appropriate score on the Mathematics Placement Test. Liberal Education Goal Area 4.

### B. COURSE EFFECTIVE DATES: 05/10/2010 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Linear and quadratic equations
2. Function notations
3. Domain and range of a function
4. Combining functions via arithmetic operations and composition
5. Polynomial and rational functions
6. Graphing linear and quadratic functions

### D. LEARNING OUTCOMES (General)

1. illustrate historical and contemporary applications of mathematical/logical systems by using trigonometry to solve a variety of problems including applications to surveying, navigation and geometry.
2. clearly express mathematical/logical ideas in writing in their assignments, projects and exams.
3. explain what constitutes a valid mathematical/logical argument (proof) in their work with trigonometry identities and geometry.
4. apply higher-order problem-solving and/or modeling strategies regularly in all of their work.
5. gain an understanding and appreciation of the structure and beauty of mathematics, the economy and power of its notation and its applications in the world around us.

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

Goal 04 - Mathematical/Logical Reasoning

1. No Competencies Indicated

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted