

BGSU Math 1290 – Trigonometry Syllabus

Course Description: Math 1290 is a 2-credit course offered in the Fall and Spring semesters. This course is designed for the student who may have a good background in algebra, geometry, and perhaps some precalculus but who is lacking in the specific area of trigonometry. Content covered includes: angles, triangles, trigonometric functions and graphs, radian measure, circular functions, trigonometric equations and identities, and inverse functions. This course is not to be taken if credit for Math 1280 or Math 1300 has been received.

Prerequisites: C or higher in Math 1200 or Math 1220 or consent of Math and/or Transfer Departments.

Text: *Trigonometry*, Eighth Edition, by Lial, M., Hornsby, J., and Schneider, D. 2005 Pearson Education, Inc.

Calculator: The TI-83(plus) or TI-84(plus) graphing calculator will be required for use in this class.

Course Assessment Allocation: Each instructor writes their own tests and quizzes for their individual classes, using the following general guideline for each assessment category:

3 or 4 Tests	=	48 – 50%
Quizzes/Homework/Attendance	=	25 – 30%
Comprehensive Final Exam	=	20 – 25%

Course Coverage (3-Test Sample shown):

Angles, Triangles, Trigonometric Functions

- 1.1 Angles
- 1.2 Angle Relationships and Similar Triangles
- 1.3 Trigonometric Functions
- 1.4 Signs & Ranges of Functions, Identities
- 2.1 Trigonometric Functions of Acute Angles
- 2.2 Trigonometric Functions of Non-Acute Angles

TEST 1: Chapter 1 and Sections 2.1, 2.2

- 2.3 Calculator Functions
- 2.4 Solving Right Triangles

Radian Measure, Circular Functions, Trigonometric Identities

- 3.1 Radian Measure
- 3.2 Arc Length, Areas of Sectors
- 3.3 The Unit Circle and Circular Functions
- 3.4 Linear and Angular Speed
- 4.1 Graphs of the Sine and Cosine Functions
- 4.2 Translations of Sine & Cosine Graphs

TEST 2: Sections 2.3, 2.4, and Chapters 3 & 4

- 5.1 Fundamental Identities
- 5.2 Verifying Trigonometric Identities
- 5.6 Half-Angle Formulas (optional)
- 6.1 Inverse Circular Functions
- 6.2 Trigonometric Equations
- 7.1 Oblique Triangles, Law of Sines

- 7.2 Law of Sines, Ambiguous Case
- 7.3 Law of Cosines, Heron's Formula

TEST 3: Chapters 5, 6 and Section 7.1

Comprehensive Final Exam