



RANGER COLLEGE
STEPHENVILLE, TEXAS

COURSE SYLLABUS

Trigonometry

MATH 1316

3 credit hours

INSTRUCTOR:

Isaac Voegtle

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EMAIL: ivoegtle@rangercollege.edu
OFFICE: Ranger: Connected to Room 3 in Gladwell/Science Building
Erath: Across the hall from the Cosmetology entrance
HOURS: MW, Erath, 10:00-10:30, 12:00-13:30
TR, Ranger, 10:30-11:00, 12:25-13:40

1. Texas Core Curriculum Statement of Purpose

Students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

2. Course Description

Trigonometric functions, identities, equations, and applications. Use of hand-held calculators in solving application problems.

3. Required Background and Prerequisites

MATH 1314 or concurrent enrollment.

4. Required Textbook and Course Material

Lial et.al., Trigonometry-----with Accessible eBook, 10th Edition, Pearson Publishing
ISBN: 0321828100

MyMathLab Access Code, Pearson Publishing

Graphing calculator (TI – 83 or – 84) strongly recommended

5. Course Purpose

This course focuses on quantitative literacy in logic, patterns, and relationships. The course involves the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experiences.

6. Learning Outcomes

Upon successful completion of this course the student will:

- 1) Compute the values of the trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
- 2) Graph trigonometric functions and their transformations.
- 3) Prove trigonometric identities.
- 4) Solve trigonometric equations.
- 5) Solve right and oblique triangles.
- 6) Use the concepts of trigonometry to solve applications.

7. Core Objectives

This course directly meets the following of the six Core Objectives:

- 1) **Critical Thinking Skills (CT)** – Creative thinking, innovation, inquiry, and analysis, evaluation, and synthesis of information.

- 2) **Communication Skills (COM)** – Effective development, interpretation, and expression of ideas through written, oral, and visual communication.
- 3) **Empirical and Quantitative Skills (EQS)** – The manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
- 4) **Teamwork (TW)** – The ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
- 5) **Social Responsibility** – Intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.
- 6) **Personal Responsibility (PR)** – The ability to connect choices, actions, and consequences to ethical decision-making.

8. **Methods of Instruction**

This is a multi-media class. Media/methods include informal lectures, discussion, computer managed homework, computer delivered tutorials, limited self-pacing, instructional television, and distance delivery via Blackboard.

9. **Methods of Assessment**

Quizzes (20%) (CT, COM, EQS, PR)-There will be 3 – 5 short in-class quizzes which usually include verbal response items as well as typical trigonometric problems.

MyMathLab (20%) (CT, COM, EQS, PR)-This grade component will be determined by combining the percent completion of all assignments with the composite average of the assignments completed.

Major Exams (35%) (CT, COM, EQS, PR)-There will be 2 – 5 class period length exams, each covering multiple chapters from the textbook.

Final Exam (25%) (CT, COM, EQS, PR)-This is a departmental exam and may be used for data collection purposes as well as determining the course grade.

Grading Scale: A=90-100% B=80-89% C=70-79% D=60-69% F<60%

10. **Classroom Policies/procedures**

- 1) Regular and punctual attendance in all classes is considered essential for optimum academic success.
- 2) Students are expected to be seated by the beginning of the class.
- 3) If a student has the equivalence of three weeks of unofficial absences the student may be dropped from the class with a grade of F (Ranger College General Catalog).
- 4) Excessive tardiness (6) may be considered as an absence.
- 5) It is the responsibility of the student to inform the instructor of an excused absence. An absence may be excused by the Dean for participation in an authorized college activity or for a valid medical reason.
- 6) Any student who is disruptive to the class will be dismissed from the class and may be dropped from the course. Any student misconduct will be reported to the Dean of Student Services (See Student Handbook.)
- 7) Any student found with unauthorized material(s) such as cheat sheets, electronic devices, etc. during a quiz or exam or copying another student's work will be subject to disciplinary action.
- 8) Please do not bring cell phones, iPod, or other electronic devices to class or be sure they are turned off. Computers (lap tops) may be used with special permission and only for math class material.
- 9) No use of tobacco products is permitted in anywhere on campus.

11. Course Outline/Schedule

Weeks 1 – 3	Chapter 1
Weeks 4 – 6	Chapters 2 – 3
Weeks 7 – 8	Chapter 4
Weeks 9 – 10	Chapter 5
Weeks 11 – 12	Chapter 6
Weeks 13 – 14	Chapter 7
Week 15	Final Exam

12. Non-Discrimination Statement

Admissions, employment, and program policies of Ranger College are non-discriminatory with regard to race, creed, color, sex, age, disability, and national origin.

13. ADA Statement

Ranger College provides a variety of services for students with learning and/or physical disabilities. Students are responsible for making initial contact with the Ranger College Counselor, Gabe Lewis (glewis@rangercollege.edu). It is advisable to make this contact before or immediately after the semester begins.

14. Revision of Syllabus

The contents of this syllabus may be revised to better meet the needs of a particular class. Any revisions will be presented to class members in writing.