



RANGER COLLEGE
STEPHENVILLE, TEXAS
COURSE SYLLABUS

Precalculus

MATH 2312

3 credit hours

FALL 2021

INSTRUCTOR:

Rebecca Plowman

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EMAIL: rplowman@rangercollege.edu

OFFICE: Stephenville Faculty Offices and Elsom Building Rm 6, Ranger Campus

PHONE: 254-595-2008 (text before calling)

HOURS: Main Campus: M/W 8:40 to 9:10am and 1:40 to 2:40pm

Erath Center: T/TH 8:30 to 10:30 and Tues 1:30 to 3:00

I. Texas Core Curriculum Statement of Purpose

Through the Texas Core Curriculum, 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.

II. Course Description

In-depth combined study of algebra, trigonometry, and other topics for calculus readiness.

III. Required Background or Prerequisite

Passing MATH 1314 with a D or better.

IV. Required Textbook and Course Materials

Sullivan, Precalculus, 10th Edition. ISBN: 9780321979070

Access Code for Pearson's MyMathLab (code will be provided by me, unless you are dual enrollment).

Graphing Calculator: TI 83 plus or TI 84 is recommended. If you cannot afford a calculator initially, you can use Desmos Graphing Calculator ([desmos.com/calculator](https://www.desmos.com/calculator))

V. Course Purpose

In-depth combined study of algebra, trigonometry, and other topics for calculus readiness.

VI. Learning Outcomes

- Demonstrate and apply knowledge of properties of functions.
- Recognize and apply algebraic and transcendental functions and solve related equations.
- Apply graphing techniques to algebraic and transcendental functions.
- Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.

- Prove trigonometric identities.
- Solve right and oblique triangles.

VII. Core Objectives

This course meets the following of the six Core Objectives established by Texas:

- Critical Thinking Skills (CT)** – Creative thinking, innovation, inquiry, and analysis; evaluation and synthesis of information
- Communication Skills (COM)** – effective development, interpretation and expression of ideas through written, oral, and visual communication
- Empirical and Quantitative Skills (EQS)** – The manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- Teamwork (TW)** – The ability to consider different points of view and to work effectively with others to support a shared purpose or goal
- Social Responsibility (SR)** – Intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities
- Personal Responsibility (PR)** – The ability to connect choices, actions, and consequences to ethical decision-making

VIII. Methods of Instruction

This course is online.

All material will be available through Blackboard.

- Videos
- Presentation Notes
- Etext
- MyMathLab

IX. Methods of Assessment

All work will be done through MyMathLab, and accessible through Blackboard.

25%: Homework

Homework will be through MyMathLab. You will have weekly homework sets that following the calendar given in the **Course Outline/Schedule**. There is not cap on the number of times you can attempt a problem in the homework and the due date will be the Friday of the following week it is covered.

MATH 2312 – Summer 2021

25%: Quizzes

Quizzes are also available through MyMathLab. You will have a weekly times quiz. The weekly quiz will be do the same week as the homework. You will have one attempt per problems, but two attempts at the quiz.

25%: Exams

There will be two online exams, on MyMathLab. Exams will cover 2 or 3 chapters of prior material. You will have a window of three days to complete the exam. You will have one attempt per problems, but two attempts at the exam as a whole

25%: Final Exam

The will be one final exam at the end of the course, covering all course material. The exam will also be on MyMathLab, but you must be proctored for this exam. You can either use Proctor U, come to a campus during final exams week, or contact me for other options.

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

X. Course/Classroom Policies

All work will be completed by the due dates.

Make ups on quizzes and exams will be given only under extreme circumstances (ie. hospitalization, death of a close friend or family member, family illness, etc.).

Discussion board will be available for students to contact me or each other. Please no foul or inappropriate language, as some of our classmates are under 18.

All communication between yourself and I or other students will be courteous.

XI. Course Outline/Schedule

Week	Material
Week 1: Aug 23rd	Chapter 1: Review Sections 1-4
Week 2: Aug 30th	Chapter 2: Functions Sections 1-3
Week 3: Sept 7th	Chapter 2: Functions Sections 4-6

Week 4: Sept 13th	Chapter 3: Linear and Quadratic Functions Sections 1-4
Week 5: Sept 20th	Chapter 4: Polynomial and Rational Functions Sections 1-3
Week 6: Sept 27th	Chapter 4: Polynomial and Rational Functions Sections 4, 6, and 7 Exam 1 Available Sept 30 to Nov 2
Week 7: Oct 4th	Chapter 5: Exponential and Logarithmic Functions Sections 1-4
Week 8: Oct 11th	Chapter 5: Exponential and Logarithmic Functions Sections 5-9
Week 9: Oct 18th	Chapter 6: Trigonometric Functions Sections 1-3
Week 10: Oct 25th	Chapter 6: Trigonometric Functions Sections 4-6
Week 11: Nov 1st	Chapter 7: Analytic Trigonometry Sections 1-4 Exam 2 Available Nov 4-6
Week 12: Nov 8th	Chapter 7: Analytic Trigonometry Sections 5-7
Week 13: Nov 15th	Chapter 8: Applications of Trigonometric Functions Sections 1-3
Week 14: Nov 22nd	Thanksgiving Break
Week 15: Nov 29th	Chapter 9: Polar Coordinates Section 1-4 (if possible)
Week 16: Dec 6th	FINAL EXAMS

XII. Non-Discrimination Statement

Admissions, employment, and program policies of Ranger College are nondiscriminatory in regard to race, creed, color, sex, age, disability, and national origin.

XIII. 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.