



RANGER COLLEGE

COURSE SYLLABUS

Foundations of Mathematics

MATH 0342

3 credit hours

FALL 2021

INSTRUCTOR:

Krystal Ostdiek

INSTRUCTOR: Krystal Ostdiek
EMAIL: kostdiek@rangercollege.edu
OFFICE: Stephenville: Back Office
Brownwood: By appointment
PHONE: Office: TBA
HOURS: Zoom or in person office hours are available **on Tuesdays by appointment.**

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

0342 – Foundations of Math I (3-0) 32.0104.51 19 This course is an academic resource for students enrolled in the STAT path or quantitative literacy path. Its purpose is to help the student prepare to meet the requirements of the Texas Success Initiative, and to help the student gain the skills necessary to be successful in mathematics classes at the college level. Students are placed in it based on holistic placement procedures of both quantitative and qualitative data, including, but not limited to: TSI scores, high school GPA, prior coursework, motivation, and TSI diagnostic profiles. Students in this course are advised to enroll concurrently in MATH 1332 or 1342. This course is non-transferable college credit and may not be counted or used as hours towards graduation. Course content includes: reviewing of factoring and special structures; functions and equations as followings; rational, radical, root, and quadratics; systems of linear equations and inequalities in two and three variables; and non-linear inequalities. Credit 3 semester hours

III. Required Background or Prerequisite

The student has also scored less than a 340 on the TSI or has not taken the TSI. Updated 2021 TSI requirements are that the student has scored less than 950 and diagnostic level less than a 6.

IV. Required Textbook and Course Materials

- Developmental Math Emporium-Lumen OHM (Online Textbook)
- Handheld calculator (TI-30XS, TI-30, or TI-84 are recommended).
- Notes printed from Blackboard
- Additional suggestions include a 1” binder, scissors, and glue.

V. Course Purpose

Courses in Mathematics focus on quantitative literacy in logic, patterns, and relationships. Courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience. At the completion of this course, the student should be prepared to succeed in Statistics, Contemporary Mathematics, or Intermediate Algebra.

VI. Learning Outcomes

Upon successful completion of this course, students will:

1. Use appropriate symbolic notation and vocabulary to communicate, interpret, and explain mathematical concepts.
2. Define, represent, and perform operations on real numbers, applying numeric reasoning to investigate and describe quantitative relationships and solve real world problems in a variety of contexts.
3. Use algebraic reasoning to solve problems that require ratios, rates, percentages, and proportions in a variety of contexts using multiple representations.
4. Apply algebraic reasoning to manipulate expressions and equations to solve real world problems.
5. Use graphs, tables, and technology to analyze, interpret, and compare data sets.
6. Construct and use mathematical models in verbal, algebraic, graphical, and tabular form to solve problems from a variety of contexts and to make predictions and decisions.

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

The instructional delivery of this class may be face-to-face, online, or hybrid. Students may be expected to watch instructional videos outside class, attend Zoom class sessions, work in groups via Zoom, or attend regular class in person. Students are also expected to complete assignments online through Blackboard and Lumen.

IX. Methods of Assessment

In order to be successful in this course, students must achieve a 70% or higher OR successfully pass the TSI Math assessment.

- **Homework (and other formative assessments – CT, COM, EQS, PR): 30%**
 - This average will come from an overall mean score from the online homework system.
 - A formative assessment can include homework, quizzes, class discussions, group work, and other in-class assignments.
- **Attendance and Participation (CT, COM, EQS, TW, PR): 10%**
 - You will be expected to attend class everyday, either face to face or on Zoom. You will also be asked to participate in class. Participation will include answering questions, in class discussions, and potential group work.
- **Unit Tests (and other summative assessments – CT, COM, EQS, PR): 35%**
 - A minimum of 3 summative assessments will be administered online, in-person, or through a project.
 - A summative assessment can include projects, discussion boards, video submissions, etc.
- **Final Exam (CT, COM, EQS, PR): 25%**
 - The final will be a proctored exam. This will be a cumulative exam of material covered up until the time of the exam.

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

X. Course/Classroom Policies

Class participation is strongly encouraged for optimal learning.

Absences – **A student WILL be dropped from the course after the sixth absence from class. If you cannot attend class, you must notify the instructor prior to class and attend on zoom.**

Make up assignments – Make up exams will be given on a case-by-case basis. Homework will not be opened up after the final exam starts.

Test Corrections – No test corrections will be given unless otherwise stated by the instructor.

Homework – Homework due dates will not be extended unless the course calendar changes. Anything completed after the initial due date has a 10% late penalty deducted.

Tests – Tests may be administered in class or online. You will know ahead of time which method is being used. No cell phones may be used on the test. If a student is caught using a cell phone, the instructor may take the test and deduct points from the score.

Academic Dishonesty - A student found to be cheating or copying on an exam or quiz will be given a grade of “0”. Repeated acts of cheating may result in being dropped from class with a grade of “F”.

Student Behavior - Students will behave as mature adults and exhibit proper classroom decorum. Students will not cause any distractions that might prevent other students from learning. Students that deviate from this policy will not be permitted to remain in class.

Cell phones - students are encouraged to step outside when receiving phone calls. Cell phones CANNOT be used on a test.

Calculators – please purchase a handheld calculator to use in class (you may not use your phone as a calculator). A TI-84+ is recommended for use in this course. If you cannot purchase your own calculator, you may borrow one from the school.

Available Support Services - the Learning Resource Center has books, videos, and computer software that may be used as a supplement for this class. Tutors are also available (see counselor).

11. Course Outline/Schedule

WEEK	MONDAY IN CLASS	WEDNESDAY IN CLASS	DUE BY MIDNIGHT SUNDAY
1: AUG 23	Introductions. Syllabus, blackboard, computer lab.	Multiplying, dividing, and converting fractions.	
2: AUG 30	Adding and subtracting fractions.	QUIZ-Notes are allowed.	ALL FRACTION HOMEWORK/QUIZ
3: SEPT 6	Probability Basics	QUIZ-Notes are allowed.	ALL PROBABILITY HOMEWORK/QUIZ
4: SEPT 13	Basic Statistics	QUIZ-Notes are allowed.	ALL STATISTICS HOMEWORK/QUIZ
5: SEPT 20	Adding and subtracting integers.	Multiplying and dividing integers	
6: SEPT 27	Order of operations	QUIZ-Notes are allowed	ALL INTEGER AND ORDER OF OPERATIONS HOMEWORK/QUIZ
7: OCT 4	Evaluating Expressions	QUIZ-Notes are allowed	ALL EVALUATING EXPRESSIONS HOMEWORK/QUIZ
8: OCT 11	Simplifying Algebraic Expressions	QUIZ-Notes are allowed	ALL SIMPLIFYING EXPRESSIONS HOMEWORK/QUIZ
9: OCT 18	Adding Polynomials	Distributing Polynomials	
10: OCT 25	Multiplying Polynomials/Special Cases	QUIZ-Notes are allowed	ALL POLYNOMIAL HOMEWORK/QUIZ
11: NOV 1	Factoring GCF/Trinomials	QUIZ-Notes are allowed	ALL FACTORING HOMEWORK/QUIZ
12: NOV 8	Solving Linear Equations	Graphing Linear Equations	
13: NOV 15	Converting Linear Equations	QUIZ-Notes are allowed	ALL LINEAR EQUATIONS HOMEWORK/QUIZ
14: NOV 22	THANKSGIVING BREAK	THANKSGIVING BREAK	
15: NOV 29	Solving systems of equations	Solving systems of equations	
16: DEC 6	IN CLASS REVIEW	TUESDAY-THURSDAY IS FINALS. MAKE SURE YOU KNOW THE DATE/TIME OF YOUR FINAL. IT IS NOT REGULAR CLASS TIME.	

12. Non-Discrimination Statement

Admission, 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.