



RANGER COLLEGE
STEPHENVILLE, TEXAS

COURSE SYLLABUS

FOUNDATIONS OF MATHEMATICS

MATH 0342

FALL 2021 – ONLINE

INSTRUCTOR:

Jessica Brown

MATH 0342

INSTRUCTOR: Jessica Brown
EMAIL: jbrown@rangercollege.edu
OFFICE: Erath County – faculty offices
PHONE: 254-918-7232
HOURS: Zoom or in person office hours available on MW 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 scored less than a 340 (for TSI 2.0: less than 950 and diagnostic level less than 6) on the TSI or has not taken the TSI.

IV. Required Textbook and Course Materials

- Developmental Math Emporium – Lumen OHM
- Handheld scientific calculator (TI-30XS, TI-30, or TI-84 are recommended).
- Notes printed from Blackboard

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 is online. Students may be expected to watch instructional videos outside class, work in groups via Zoom, or attend Zoom tutoring sessions. Students are expected to complete assignments online through Blackboard and Lumen.

IX. Methods of Assessment

In order to be successful in Foundations of Math, a student must achieve a 70% OR successfully pass the TSI Math assessment. Failure to obtain either academic stipulation will result in repeating the course.

- 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 class discussions, group work, and other assignments.
- Unit Tests or Quizzes (and other summative assessments – CT, COM, EQS, PR): 45%
 - A minimum of 3 summative assessments will be administered online or through a project.
 - A summative assessment can include projects, discussion boards, video submissions, etc.
- 1 Proctored Exam (CT, COM, EQS, PR): 25%
 - The final exam will be a proctored exam administered at the end of the semester. 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 = Below 60

X. Course/Classroom Policies

Class participation is strongly encouraged for optimal learning. In an online environment, this consists of watching videos, filling out notes, and communicating with the instructor about tutoring or questions.

Absences – A student WILL be dropped from the course after the 3 weeks of not logging in to complete assignments. A mandatory check in should be completed weekly to help the instructor keep track of attendance. Also, submitted weekly assignments is required as proof of attendance.

Test Corrections – No test corrections will be given unless otherwise stated by instructor. Students are given a second attempt at every quiz except the final. The higher attempt will be recorded.

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. All homework assignments will close the Monday before finals and not be reopened.

Tests/Quizzes – Tests are administered online. Please exercise academic integrity when testing. Anything completed after the initial due date has a 10% late penalty deducted. All homework assignments will close the Monday before finals and not be reopened.

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”.

Cell phones – Students are discouraged from using cell phones while completing assignments.

Calculators – please purchase a handheld scientific calculator to use for class. A TI-84+ is recommended for use in this class if you plan on taking additional math courses. If this is your only math course, I recommend a TI-30XS or other handheld non-graphing calculator. If you cannot purchase your own calculator, you may borrow one from the school. **YOU WILL NOT BE PERMITTED TO USE YOUR PHONE ON THE FINAL EXAM.**

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).

XI. Course Outline/Schedule

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Week	Monday/ Tuesday	Wednesday/ Thursday
Week 1: AUG 23	Welcome Video QR Code (due 8/30)	Multiplying and Dividing Fractions (due 9/6)
Week 2: AUG 30	Adding and Subtracting Fractions – 3 assignments (due 9/6)	Quiz (due 9/6)
Week 3: SEPT 6	Probability Basics (due 9/13)	Probability with “or” (due 9/13) Quiz (due 9/13)
Week 4: SEPT 13	Mean, Median and Mode (due 9/20)	Quiz (due 9/20)
Week 5: SEPT 20	Adding Integers (due 9/27) and Subtracting integers (due 9/27)	Multiplying and Dividing integers (due 9/27)
Week 6: SEPT 27	Order of Operations (due 10/4)	Quiz (due 10/4)
Week 7: OCT 4	Evaluating expressions (due 10/11)	Evaluating expressions word problems (due 10/11). Quiz (due 10/11)
Week 8: OCT 11	Simplifying algebraic expressions (due 10/18)	Adding polynomials (due 10/18) Distributive method (due 10/18)
Week 9: OCT 18	Multiplying polynomials (due 10/25)	Quiz (due 10/25)
Week 10: OCT 25	Factor Methods (due 11/1)	Factoring special cases (due 11/1) Quiz (due 11/1)
Week 11: NOV 1	Solving linear equations (due 11/8)	Coordinate Plane (due 11/8)
Week 12: NOV 8	Finding Slope (due 11/15)	writing linear equations (due 11/15)
Week 13: NOV 15	Quiz (due 11/20)	Algebraic Systems (due 12/3)
Week 14: NOV 22	THANKSGIVING	BREAK
Week 15: NOV 29	Problem Solving Systems (due 12/3)	Review and Catch Up (due 12/9)
Week 16: DEC 6	Monday: Review and Catch Up Tuesday – Thursday: Final Exams	Final Exams close 12/9 at 5 pm

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.