



RANGER COLLEGE
STEPHENVILLE, TEXAS

COURSE SYLLABUS

INTERMEDIATE ALGEBRA

MATH 0314

3 credit hours

INSTRUCTOR:

Chan Mi Park

Instructor: Chan Mi Park
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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 skills that are essential for all learning.

Course Description

DEVELOPMENTAL MATHEMATICS (DMAT)

The purpose of Developmental Mathematics is to help students improve basic mathematics skills. The aim of Developmental Mathematics is to prepare students, so that they can be successful in academic courses at the college level to meet the requirements of the Texas Success Initiative. Based on holistic placement, using diverse data for developmental studies placement, a student is placed in MATH 0342, MATH 0314 or NCBM (course-pairing). A student placed in developmental mathematics coursework is able to advance, either to an advanced level or out of developmental mathematics, by passing the TSI Math assessment or achieving a 70% or better in his/her respective DMAT coursework, with the final exam accounting for 25% of his/her overall grade.

- **0323 - Intermediate Algebra (3-1)** 3201045219 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. Non-linear inequalities. Credit 3 semester hours. In order to move beyond developmental mathematics (0323) and into first college-level mathematics coursework, a student must achieve a 70% or better in class, with the final exam accounting for 25% of the overall grade, OR successfully pass the TSI Math assessment. Failure to obtain either academic stipulation will result in repeating 0323.

Required Background or Prerequisite

Student has credit for Algebra I and Geometry and has met the passing standard on the Algebra I end of course exam. Students may show mastery of Transition to Math Course (MATH 0323) through score on TSI.

Required Textbook and Course Materials

My Math Lab (MML) with ETEXT for *Introductory and Intermediate Algebra, Lial, Hornsby, McGinnis, 6e*, Pearson Addison Wesley can be purchased through Pearson on Blackboard or the bookstore online or in person. ISBN: 13-978013449375-6.

If you purchased this code for DMAT 0313, you will not need to purchase another code. Log in through Blackboard with your previous log in information.

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.

At the completion of this course, the student should be prepared to succeed in College Algebra.

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.

Student Learning Outcomes and Learning Objectives as defined by Ranger College: At the end of the semester the student will be able to demonstrate on an examination the abilities to work with:

1. Polynomial Expressions: Perform algebraic operations, factor, and solve polynomial equations and inequalities.
2. Rational Expressions: Simplify, perform algebraic operations, and solve rational equations and inequalities.
3. Radical Expressions: Simplify, perform algebraic operations, and solve radical equations and inequalities.
4. Systems of Equations: Solve problems involving systems of equations and inequalities.
5. Word Problems and Applications: Students effectively model verbal information with algebraic equations and inequalities and interpret the solution.

Core Objectives

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

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- ✓ **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.

Methods of Instruction

This is a multimedia class. Media/methods include informal lectures, discussion, computer managed homework, computer delivered tutorials, and distance delivery via MyMathLab.

Methods of Assessment

In order to be successful in Statistics, a student must achieve a 70% or better for an overall grade, with the final exam accounting for 25% of the overall grade, OR successfully pass the TSI Math assessment. Failure to obtain either academic stipulation will result in repeating the course.

- **Homework/ Participation (15%) (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 and participation in discussions. An absence is considered excused when the teacher is notified in advance of the absence or if the student is involved in an extracurricular activity.
- **Quizzes (15%) (CT, COM, EQS, PR)**-There will be short in-class quizzes.
- **Projects (45%) (CT, COM, EQS, TW, PR)**
- **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: Below 60

Course/Classroom Policies

- Class participation is strongly encouraged for optimal learning.
- Students are expected to be seated by the beginning of the class.
- 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).
- Excessive tardiness (6) may be considered as an absence.
- 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.
- 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.)
- 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”.
- Any student found with unauthorized material(s) such as cheat sheets, electronic devices, etc. during a quiz/exam or copying from another student’s work will be subject to disciplinary action.

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- Please do not bring cell phones, I-pods, 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.
- No use of tobacco products is permitted anywhere on campus.
- **Passing the Math portion of the TSI** - Students who pass the TSI during the semester will have the option of dropping the class with a “W” or negotiating with the instructor a grade in class. The class may not be dropped if the student has not completed all portions of the TSI and the student is not enrolled in another developmental class.

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.

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.