

Transition to College Mathematics

Mr. Chris Lemoine | Room 405

CONFERENCE: 2:30 pm – 4:00 pm (daily) | **TUTORING:** 7:15 am – 7:45 am (daily)

Course Overview and Goals

The Transition to College Mathematics curriculum prepares high school juniors and seniors for entry-level college mathematics courses. This two-part course, based on College Preparatory 1 (Part A) and College Preparatory 2 (Part B) at RGV-IHEs, is aligned with state HB5 guidelines and targets students who have not demonstrated college readiness. It focuses on developing foundational skills in algebra and higher-level problem-solving techniques necessary for success in post-secondary education.

Part A Topics: Real numbers, rules of exponents, polynomials, factoring, linear equations, graphing, and rational expressions.

Part B Topics: Factoring techniques, radicals, algebraic fractions, complex numbers, graphing, quadratic equations, and an introduction to functions.

By the end of this course, students will achieve mastery of essential mathematics concepts, enabling them to enroll in college-level courses without remediation.

Learning Environment

The course combines direct instruction with student-centered lab work, fostering a supportive and collaborative learning environment. Emphasis is placed on individual mastery through homework, group study, and class participation.

Programming Environment

For homework or lab work, students will use an approved online platform, such as MyMathLab, Math XL, or WeBWorK, to reinforce learning and receive immediate feedback.

Prerequisites

Part A: Completion of Algebra I and Geometry with passing scores on the Algebra I EOC.

Part B: Completion of Part A with a grade of 70 or higher or demonstration of mastery through Credit by Exam.

Grading Procedures

This course follows the district's grading procedure, which can be accessed on the district webpage. However, the key points are summarized below.

Categories & Weights

Assignments in this course will be categorized as either **MAJOR ASSIGNMENTS** (tests, reports, research papers, projects/presentations, essays, etc.) or **MINOR ASSIGNMENTS** (daily practice, homework, quizzes, lab work, binder checks, etc.). At the end of the semester, your final grade will be broken down into three parts.

Absences

Students with an **EXCUSED ABSENCE** from school (including off-campus suspension) will have the opportunity to make up missed work at the rate of one day for one day missed, with a maximum of five days. Students will receive no credit for any major or minor assignment not made up within the allotted time.

Students with an **UNEXCUSED ABSENCE** will not have the opportunity to make up missed work; however, if the absence is determined to be caused by extenuating circumstances, makeup work may be allowed. The grade for the makeup work will be no higher than 70%.

Retesting

Students will be given up to 3 additional school days to redo a **FAILING MAJOR ASSIGNMENT**, but the grade will be no higher than 70%. The teacher has the option of assigning an alternative major assignment and may require additional tutoring, assignments, etc., as appropriate. The teacher will indicate in the grade book that the assignment was redone.

Students will be given three additional days to make up a **LATE MAJOR ASSIGNMENT** and may be required additional tutoring, assignments, etc., as appropriate, with a progressive grade penalty of 10% per day.

Course Breakdown

Unit 0: Pre-Algebra

Review of foundational concepts including operations with integers, fractions, decimals, and percentages.

Unit 1: Solving Linear Equations

Techniques for solving single-variable linear equations and applications.

Unit 2: Graphing

Understanding coordinate planes, graphing linear equations, and interpreting slopes and intercepts.

Unit 3: Inequalities

Solving and graphing linear inequalities in one and two variables.

Unit 4: Systems of Equations

Solving systems of equations using substitution, elimination, and graphing methods.

Unit 5: Polynomials

Adding, subtracting, multiplying, and dividing polynomials.

Unit 6: Factoring

Techniques for factoring polynomials including GCF, grouping, and special products.

Unit 7: Rational Expressions

Simplifying, multiplying, dividing, adding, and subtracting rational expressions and solving rational equations.

Unit 8: Radicals

Simplifying radical expressions, performing operations, and solving equations involving radicals.

Unit 9: Quadratics

Exploring quadratic equations and functions; solving using factoring, completing the square, and the quadratic formula.

Unit 10: Functions

Understanding function notation, evaluating functions, and exploring their applications.

Class Materials

- Laptop or tablet with internet access
- Notebook and writing utensils

Classroom Rules

- Be respectful to everyone
- Come prepared and ready to learn
- Follow all school policies regarding technology use
- Participate actively in class activities and discussions
- Complete assignments on time

Teacher Expectations

- Students should attend class regularly and be on time
- Students should actively participate and engage with the course materials
- Students should seek help when needed and attend tutoring sessions if required

Academic Dishonesty

In alignment with the philosophies from Carol Dweck's work on mindset, my approach to academic integrity focuses on fostering a growth mindset and understanding the learning process. Academic dishonesty undermines this process and the development of essential skills.

Definition

Academic dishonesty includes cheating, plagiarism, fabrication, unauthorized collaboration, and other behavior that misrepresents your work or efforts. Understanding that these actions prevent genuine learning and personal growth is crucial.

First Offense

- **EDUCATIONAL APPROACH:** Instead of immediate punitive measures, we will meet to discuss why academic dishonesty occurred and the importance of integrity in your work
- **REFLECTION ASSIGNMENT:** You will complete a reflection assignment on the impact of academic dishonesty on your learning and future goals. This assignment is designed to help you understand the value of honest effort and resilience and to reflect on how academic dishonesty can hinder your personal and educational growth.

- **REDO THE ASSIGNMENT:** You can redo the assignment or an alternative one to demonstrate your understanding and effort. The new grade will be capped at 70% to acknowledge the mistake while allowing room for growth. This policy is designed to provide a learning opportunity while maintaining the grading system's integrity.

Second Offence

- **PARENTAL INVOLVEMENT:** You, your parents, and I will schedule a meeting to discuss the repeated behavior and collaboratively develop strategies for improvement.
- **INCREASED SUPPORT:** You will receive additional support, which may include tutoring sessions or check-ins with me, to ensure you have the skills and understanding needed to succeed.
- **REDO THE ASSIGNMENT:** You will again be allowed to redo the assignment with a maximum grade of 50%.

Subsequent Offenses

- **ADMINISTRATIVE INVOLVEMENT:** Further instances of academic dishonesty will be referred to school administration for additional consequences, which may include academic probation or other disciplinary actions as per school policy.
- **SUPPORT PLAN:** We will develop a comprehensive support plan involving teachers, parents, and counselors to address underlying issues and promote positive behavior changes.

I aim to help you understand that learning is a process and mistakes are growth opportunities. By focusing on development and understanding, I strive to create an environment where you feel encouraged to put forth your best effort honestly and learn from your experiences.

Acknowledgment

I have read and understood the course syllabus for Transition to College Mathematics. I agree to adhere to the grading procedures, attendance policies, and all other guidelines outlined in this syllabus. By signing this statement, I understand that I acknowledge my commitment to the course requirements and expectations.

Student Name (Printed) _____ Date _____

Student Signature _____

Parent Signature _____

Teacher Signature _____