

COLLIN COLLEGE COURSE SYLLABUS

COURSE INFORMATION

Course Number: MATH 0302

Course Title: Pre-Algebra

Course Description: Topics in mathematics such as arithmetic operations with signed numbers, algebraic expressions, and polynomials; involves solving linear equations and geometric application with an emphasis on developing critical thinking skills. Lab included.

Course Credit Hours:

Lecture Hours: 3 Credit Hours

Lab Hours: 1

Placement Assessment: Placement in MATH 0302. Consult the Testing Center Director if you have questions about an assessment level.

Prerequisite: TSI Placement

Student Learning Outcomes:

Upon successful completion of this course, students will:

1. Identify, classify, graph, and perform arithmetic operations involving real numbers.
2. Differentiate and apply a concept used to determine an exact or approximate value for perimeter, area, circumference, and length of a side of a right triangle.
3. Simplify and evaluate an algebraic expression.
4. Add, subtract, and multiply two or more polynomials.
5. Demonstrate an algebra skill to solve a linear equation in one variable.
6. Solve and apply problems involving percent and proportion.

Withdrawal Policy: “See the current *Collin Registration Guide* for the last day to withdraw. “

Collin College Academic Policies: “See the current *Collin Student Handbook*.”

Americans with Disabilities Act: Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal opportunity. It is the student’s responsibility to contact the ACCESS office, SCC-G200 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

INSTRUCTOR INFORMATION

Instructor's Name: Julie Turnbow

Office Number: J241 (Inside Suite J236)

Office Hours: Monday, Wednesday, and Fridays from 9 to 9:45 am (D203); Monday and Wednesdays from 1 to 2 pm (in I216); Tuesdays from 11:30 to 12:30 pm (D203); Thursdays from 4 to 5 pm (D203)

Phone Number: 972-377-1719

In case of emergency, contact the Developmental Education office (SCC K102) at (972) 881-5720.

Email: jturnbow@collin.edu I will check email every day and return emails within 72 hours.

Class Information:

Section Number: S04

Meeting Times: 10:00 am to 11:15 am

Meeting Location: SCC B214

Expectation: This course is paired with Math 0302. Students registered in Math 0302.S04 are expected to register concurrently with NCBM 002A S04. In order to be successful, students are expected to attend all class meetings for both Math 0302.S04 and NCBM 002A S04.

Administrative Withdrawal: Participation in class is an essential requirement of this course. Maintain contact with your professor if you are not able to attend class or complete an assignment on time. If you miss more than 20% of the meetings of a Developmental Education class between the beginning of class and the college withdrawal date, you may be administratively withdrawn from this class. Administrative withdrawal may have academic, financial, financial aid, and visa implications. It will count toward Collin's Repeat Policy and the 27-hour limitation on Developmental Education courses. Administrative withdrawal will take place after the full refund period, and if you are administratively withdrawn from the course you will not be eligible for a tuition refund. If you have questions about the administrative withdrawal policy, please contact your professor.

College Repeat Policy: Developmental courses may be taken for a combined total of no more than 27 credit hours. In addition, a student may repeat this course only once after receiving a grade, including W. If you drop this class before census day, it will not count against you.

Scholastic Dishonesty: For a full description of scholastic dishonesty see the student code of conduct in the Student Handbook. Students found responsible for scholastic dishonesty in this class may have a grade of 0 assigned or a course grade of "FD".

Course Resources: The College provides group tutoring and a Math Lab at no charge at each campus to support student success in this class. Students are required to purchase a software license for use in this class. Please see: <http://www.collin.edu/collegesurvival/> for a listing of available college support resources

Textbook: The MyMathLab (MML) Integrated Course Sequence code (**ISBN # 0321757378**) is **required**. The code can be purchased online or through the bookstore. The MyMathLab (MML) Integrated Course Sequence code includes access to the eText version of Bittinger and Beecher's *Algebra Foundations: Basic Math, Introductory and Intermediate Algebra*. The code is good for the entire developmental math sequence.

There are **optional** items in the bookstore if students choose to purchase them:

- Bittinger and Beecher *Algebra Foundations: Basic Math, Introductory and Intermediate Algebra* (book with MML code) ISBN # 0133862321*
- Custom Textbook, Bittinger *Algebra Foundations, Custom for Collin College* ISBN # 1323151338I

*If you choose to purchase the custom textbook after purchasing the MyMathLab (MML) Integrated Course Sequence code you will be paying more than the cost of the book with MML code (ISBN # 0133862321).

Supplies: Calculators are not permitted in this course. Bring a pen, pencil, notebook, the syllabus, and any reviews and other papers that I ask you to print.

Attendance Policy: Students are responsible for all material and assignments for a missed class.

Electronic Devices Policy: As per Section 6.1 Academic Etiquette and the College Experience (pg. 147, paragraph 3) of the *Collin Student Handbook* with the exception of a calculator, all electronic devices are to be switched off during class, unless an exception is obtained from the instructor in advance. All electronic devices (including cell phones, laptop computers, iPods, MP3, etc.) must be turned **OFF** and stored out of sight during class. Students who are using any electronic devices for text message, IM, email, and **etc.** during the class time will be asked to leave the class without returning for the remaining time; considered absent for that class meeting. Students will also be reported to the Dean of Students Office (DOS) at the second offence. If an emergency arises which necessitates the use of a cell phone, the please exit the classroom in an orderly fashion. Please do not disturb the lecture—otherwise every student needs prior approval.

Course Requirements: Attend class as scheduled and complete the required work: homework, Labs, Tests in Class, and a Final Examination, and any other assignments required by the Professor. Students will be expected to bring textbook, calculator, pencil and paper to class each day and take notes accordingly. With the exception of a graphing calculator, all electronic devices are expected to be switched **off** during class, unless an exception is obtained from the Professor in advance. Students are not permitted to leave early without prior permission. Arrange for appropriate child care when needed—children are not allowed.

Method of Evaluation: Only AD, BD, CD, FD or I can be awarded in this class. **A grade of DD will never be awarded. The total number of points in the class is 700.**

The **Grading Scale** will be: AD: 626 to 700 BD: 556 – 625; CD: 486 – 555; FD: below 486

Tests –There will be 4 exams given (not including the final exam). Each exam will be worth 100 points. The lowest exam grade will be replaced by the Final Exam grade if the Final Exam Grade is higher. There will be no make-up exams. If you miss an exam, the exam grade will be a zero. All exams will be given in class. The total number of points for the exams is 400. See schedule below.

Lab exercises –Students will complete 10 Labs on the MyMathLab website. Each lab will have a practice lab, which contains 15 questions. Labs 2 through 9 will contain problems from both the current section and previous sections. Students have unlimited changes to take the practice lab; however, there is only one chance for the actual lab. The URL, instructions for enrolling, and the required course ID will be provided in a separate document. The Labs will be worth a total of 100 points.

Course ID: 34303

Homework –The homework on MyMathLab is worth a total of 100 points.

Final exam–The Final Exam is worth 100 points. A comprehensive departmental final exam is REQUIRED for all students at the end of the course (NO EXCEPTIONS). If the exam is not taken, a zero will be recorded. No other grade can replace the final exam.

The instructor reserves the right to make changes to this syllabus during the semester. Changes will be provided in writing during class hours.

Expectation: Maintaining a positive learning environment: As your instructor and as a student in this class, it is our shared responsibility to develop and maintain a positive learning environment for everyone. Your instructor takes this responsibility very seriously and will inform members of the class if their behavior makes it difficult for him/her to carry out this task. As a fellow learner, you are asked to respect the learning needs of your classmates and assist your instructor achieve this critical goal.

Creating Opportunities for Learning: As your instructor, it is my responsibility to present learning opportunities through the course syllabus, lectures, labs, in-class and out-of-class exercises and assignments. It is your responsibility to do the learning by completing the readings, by attending class and by participating in the class discussions and assessment/lab exercises.

Tracking Your Success at Learning: Your instructor will conduct quizzes, exams and assessments that you can use to determine how successful you are at achieving the course learning outcomes (mastery of course content and skills) outlined in the syllabus. If you find you are not mastering the material and skills, you are encouraged to reflect on how you study and prepare for each class. Your instructor welcomes a dialogue on what you discover and may be able to assist you in finding resources on campus that will improve your performance.

The Census date is February 1, 2016. The last day to withdrawal is March 18, 2016. No food or drink in the classroom.

Tentative Course Calendar

Math 0302 Schedule for 16 Weeks
Algebra Foundations, 1st ed. by Bittinger/Beecher

Day		0302 Lab Quiz Due Date
1/19	Syllabus 1.9 (Objective b, c): Exponential Notation and Order of Operations	
1/21	10.1: Introduction to Algebra 10.2 (Objective d, e): The Real Numbers	
1/26	10.3: Addition of Real Numbers 10.4: Subtraction of Real Numbers	
1/28	10.5: Multiplication of Real Numbers 10.6: (Objective a, b): Division of Real Numbers	
2/2	2.5: Simplifying Fractions 2.6: Multiplying, Simplifying, Applications	Lab 1 (1.9, 10.1, 10.2, 10.3, 10.4)
2/4	2.7: Division and Applications Review Test 1	
2/9	Test 1 In Class	Lab 2 (10.5, 10.6, 2.5, 2.6, 2.7)
2/11	3.1: Least Common Multiple 3.2: Addition and Applications 3.3: Subtraction, Order, and Applications 3.4: Mixed Numerals	
2/16	3.5: Addition and Subtraction using Mixed Numerals; Applications 3.6: Multiplication and Division using Mixed Numerals; Applications	Lab 3 (3.1, 3.2, 3.3, 3.4)
2/18	3.7 (Objective a): Order of Operations 5.1: Introduction to Ratios 5.2: Rates and Unit Prices	
2/23	5.3: Proportions 5.4: Applications of Proportions	Lab 4 (3.5, 3.6, 3.7, 5.1, 5.2)
2/25	6.1: Percent Notation 6.2: Percent Notation and Fraction Notation	
3/1	Review Test 2	Lab 5 (5.3, 5.4, 6.1, 6.2)

3/3	Test 2	
3/2	3/7 – 3/11 Spring Break – No Class	
3/15	6.3: Solving Percent Problems Using Percent Equations 6.4: Solving Percent Problems Using Proportions	
3/17	6.5: Applications of Percent	
3/22	6.6: Sales Tax, Commission, and Discount 6.7 (Objective a): Simple Interest	
3/24	9.1: Perimeter 9.2: Area	
3/29	9.3: Circles 9.6: Square Roots and Pythagorean Theorem 10.7: Properties of Real Numbers	Lab 6 (6.3, 6.4, 6.5, 6.6, 6.7)
3/31	10.8: Simplifying Expressions; Order of Operations	
4/5	13.1 (Objective b, f): Integers as Exponents 13.2 (Objective c): Scientific Notation	Lab 7 (9.1, 9.2, 9.3, 9.6)
4/7	Review Test 3	
4/12	Test 3	Lab 8 (10.7, 10.8, 13.1, 13.2)
4/14	13.3 (Objective b, c): Introduction to Polynomials 13.4: Addition and Subtraction of Polynomials	
4/19	11.1: Solving Equations: The Addition Principle 11.2: Solving Equations: The Multiplication Principle	
4/21	11.3: Using the Principles Together 11.6: Applications and Problem Solving	
4/26	2.1 (Objective a, b): Introduction to Graphing Review Test 4	
4/28	Test 4	Lab 9 (13.3, 13.4, 11.3, 11.6)
5/3	Final Exam Review	
5/5	Final Exam Review	Lab 10 (Review)
5/10	Final Exam 10 am to noon (in class) Bring Bluebook, Scantron, Pencil, and Calculator	

**MATH 0302 PREALGEBRA
COURSE OBJECTIVES**

Algebra Foundations: Basic Math, Introductory Algebra, and Intermediate Algebra, First Edition
Marvin L. Bittinger, Judith A. Beecher, Barbara L. Johnson

Upon successful completion of this course, students will be able to:	Textbook Reference
1. Identify, classify, graph, and perform arithmetic operations involving real numbers.	
• Find the absolute value of a number.	10.2d
• Order and compare two or more real numbers.	10.2e
• Add, subtract, multiply and divide two signed numbers.	10.3, 10.4, 10.5, 10.6
• Identify the base and exponent of an exponential expression.	1.9b
• Simplify a numerical expression using the rules for order of operations.	1.9c, 3.7a, 10.8
• Find the Least Common Multiple of two or more numbers.	3.1
• Simplify a rational number and add, subtract, multiply, and divide two rational numbers (no variables involved).	2.5, 2.6, 2.7, 3.2, 3.3, 3.4, 3.5, 3.6
• Simplify a numerical expression containing one or more square roots of perfect squares.	9.6a
• Simplify a numerical expression which contains an exponent that is an integer.	1.9c, 10.8d, 13.1b, f
• Write a decimal in scientific notation and convert a number in scientific notation to decimal form.	13.2c
• Graph an ordered pair on a rectangular coordinate system.	12.1a,b
2. Differentiate and apply a concept used to determine an exact or approximate value for perimeter, area, circumference, and length of a side of a right triangle.	
• Find the perimeter and area of a rectangle and a triangle.	9.1, 9.2
• Find the circumference and area of a circle and give both the exact answer and a decimal approximation.	9.3
• Find the missing length of a side of a right triangle.	9.6c
• Apply the Pythagorean Theorem.	9.6d
3. Simplify and evaluate an algebraic expression.	
• Use the Commutative, Associative and Distributive Properties to simplify a numerical and algebraic expression.	10.7, 10.8
• Identify and combine like terms in an algebraic expression.	10.7
• Identify the terms, coefficients, and variables of a polynomial (if applicable).	13.3b,c
• Translate verbal phrases into mathematical expressions.	10.1b
• Evaluate an algebraic expression for given values of the variables.	10.1a
4. Add two or more polynomials and subtract two polynomials.	
• Classify polynomials as monomials, binomials, or trinomials where applicable.	13.3b
• Add and subtract polynomials.	13.4
5. Demonstrate an algebraic skill to solve a linear equation in one variable.	
• Solve a linear equation using the addition property of equality.	11.1
• Solve a linear equation using the multiplication property of equality.	11.2
• Solve a linear equation using both the addition and multiplication properties of equality.	11.3
• Solve an application modeled by a linear equation.	11.6
• Translate word phrases to algebra.	10.1b
6. Solve and apply problems involving percent and proportion.	
• Solve percent problems.	6.1, 6.2, 6.3

• Solve percent applications.	6.5, 6.6, 6.7a
• Translate a percent problem to a proportion.	6.4
• Write a ratio as a fraction.	5.1, 5.2
• Decide if a proportion is true using diagonal products.	5.3a
• Solve a proportion.	5.3b
• Use a proportion to model an application.	5.4, 6.4
• Solve an application involving numbers.	11.6