Course Description

MATD 0370 ELEMENTARY ALGEBRA (3-4-0). A course designed to develop the skills and understanding contained in the first year of secondary school algebra. Topics include review of operations on real numbers, graphing linear equations, solving linear and quadratic equations, solving systems of linear equations, polynomials, factoring, and applications.

Required Materials


In the event that you have difficulty with promptly obtaining a textbook, you can access the textbook via MyMathLab. To gain temporary access to MyMathLab for 14 days, see: http://www.austincc.edu/jbickham/MMLTempAccessInfo

MyMathLab access: In all of Janet Bickham's math sections, MyMathLab (access kit or code) is required and comes with the book and solutions online. If you choose to buy a printed book, make sure it is NEW and comes with MyMathLab access. It is NOT included with the purchase of a USED book, and may not be included with a NEW book, so be sure to check. Refer to the handout Information about MyMathLab.

Notebook paper, pencils (or pens), erasers, and a scientific (non-graphing) calculator are also required.

Prerequisites

Please make sure you have the necessary prerequisites for this course. That means you need a C or better in Basic Math Skills (MATD 0330) or its equivalent knowledge, or appropriate score on the ACC Mathematics Assessment Test taken before enrolling in ACC mathematics courses. You will also have to pass a Pretest for this course. If I feel you are not prepared for this course, I may choose to withdraw you. If you have any questions about your preparation for the course, please talk to me about it.

Grading Policy

The grading policy is at the end of the Weekly Schedule at http://www.austincc.edu/jbickham/handouts.
Instructional Methodology

On-campus sections are computer-mediated courses. Attendance is required, and students are expected to keep up with the Weekly Schedule but may select which days each week to work on their assignments and may also access the computer software outside of class. The final exam is given in class, but all other tests are given in the Pinnacle Testing Center, or else all tests are given in the Office for Students with Disabilities.

In distance learning sections, students are expected to keep up with the Weekly Schedule but may select which hours of which days each week to work on their assignments. All tests are appropriately proctored.

In-Progress Grade

If a student is regularly attending and doing all assigned work but is still not earning a grade of C or higher, he or she may be eligible for the IP (In Progress) grade. Students who receive an IP grade are expected to register and pay for the course again the next time they enroll at ACC. A maximum of 2 IP grades can be awarded in any single developmental course.

How to Progress through the Course

Homework problems consist of two types: online homework problems in MyMathLab and written homework problems from the textbook. Both are required and contribute to your grade. Below is the order in which you should work through the assignments, for maximum benefit.

Instructional Aides in MyMathLab

Each section contains online video lectures and example problems. This is where you should start. View the lectures and/or animations, and pause as needed to work through the You Try It examples, before doing homework. Read through the pages in the textbook for a more thorough explanation.

Online Homework

As soon as possible after the video lectures, do the online homework from the corresponding sections in MyMathLab, as outlined in the Weekly Schedule at http://www.austincc.edu/jbickham/handouts. These problems often have instructional aides and give immediate feedback.

You must complete each assignment with a score of 80% or better before continuing to the next section. You may attempt each problem as many times as necessary. If you are stuck, get help.

Written Homework

After completing the online homework, do the assigned written problems from the textbook. Read all details about completing and submitting written homework and written reviews for all tests, including the Final Exam, in the Weekly Schedule posted at http://www.austincc.edu/jbickham/handouts.

Online Quizzes

Quizzes are given online, a quiz for every few sections, in MyMathLab. Take the online quiz shortly after completing the homework for all of the sections that are covered on the quiz. You must complete all of the online homework in the corresponding sections with a score of 80% or higher before attempting the quiz. Quiz deadlines are stated in the Weekly Schedule at the web page above.

Students should score at least 80% on each quiz. Each quiz may be taken up to three times, so contact your instructor for help if you have not scored at least 80% in three attempts. The highest score out of all attempts for each quiz is the only score that will count.

Tests and Missed Test Policy

All tests, including the Final Exam, will be given in an ACC Testing Center at http://www.austincc.edu/testctr. For on-campus students, this will be Pinnacle Testing Center. If taken on our last day of class by on-campus students, the Final Exam will be taken in class. Students who submit an appropriate accommodations letter may take their tests in an ACC Office for Students with Disabilities. These tests must be taken by the stated
deadlines. The Final Exam grade may replace your lowest test grade if the Final Exam grade is higher, in which case the Final Exam grade counts twice: once as the Final Exam grade and again in place of the lowest test grade. Tests may be taken early, but please ask permission to take a test early or wait until you hear from me that it is available. As soon as it is available, you are welcome to take it. Please refer to the Weekly Schedule at http://www.austincc.edu/jbickham/handouts for more info about testing.

**Attendance, Withdrawal, and Reinstatement**

Regular and punctual class attendance is expected of all students. If attendance or compliance with other course policies is unsatisfactory, the instructor may withdraw students from the class.

"Attendance/participation" is determined by continuing to progress in the class - keeping up with the (1) Weekly Schedule of assignments and quizzes to complete on the computer, (2) tests to take in the Testing Center, and (3) written homework due dates. A record of all work completed while logged into the computer program is sent to the instructor. Students may be dropped for excessive absences or for missing tests or assignments. If you start to fall behind, be sure to contact me. I may drop students who do not show signs of progress. While I may drop a student for various reasons, it is always the student’s responsibility to make sure you have dropped the course. Never assume any ACC instructor has dropped you from a course until you have checked with ACC’s administration. Students who withdrew or were withdrawn generally will not be reinstated unless they have completed all quizzes, homework, and tests necessary for them to be caught up with the rest of the class and be passing the course with at least a C (70%) average.

The deadline for withdrawal (and reinstatement) is **Monday, April 27**.

**ACC’s Official Withdrawal Policy**

It is the responsibility of each student to ensure that his or her name is removed from the roll should he or she decide to withdraw from the class. The instructor does, however, reserve the right to drop a student should he or she feel it is necessary. If a student decides to withdraw, he or she should also verify that the withdrawal is submitted before the Final Withdrawal Date. The student is also strongly encouraged to retain their copy of the withdrawal form for their records.

Students who enroll for the third or subsequent time in a course taken since Fall 2002 may be charged a higher tuition rate, for that course.

State law permits students to withdraw from no more than six courses during their entire undergraduate career at Texas public colleges or universities. With certain exceptions, all course withdrawals automatically count towards this limit. Details regarding this policy can be found in the ACC college catalog.

**TSI Warning for Students Who Are Not TSI Complete***

Students who are not TSI complete in math are not allowed to enroll in any course with a math skill requirement.

All students are required to be "continually in attendance" in order to remain enrolled in this course. If this is the only developmental class you are enrolled in, and you withdraw yourself from this course or are withdrawn by your instructor, then:

a) You may be withdrawn from courses that you should not be enrolled in, such as any class with a math skill requirement.

b) You will have a hold placed on your registration for the following semester. The Hold will require that you register for the next semester in person with an advisor or counselor and that you work with the Developmental Math Advisor during that semester.

c) You will continue to face more serious consequences, up to being restricted to only registering for developmental courses, until you complete the required developmental math course or satisfy the TSI requirement in another way.

More information can be found at http://www.austincc.edu/math/tsiwarning.htm.

* If you are unsure whether or not this warning applies to you, see an ACC advisor immediately.
Importance of Completing Developmental Course Requirements

The first steps to achieving any college academic goal are completing developmental course requirements and TSI requirements. The first priority for students who are required to take developmental courses must be the developmental courses. TSI rules state that students are allowed to take college credit courses, if they are fulfilling their developmental requirements. Because successful completion of dev courses is so important, ACC will intervene with any student who is not successfully completing developmental requirements. This intervention can mean a hold on records, requiring developmental lab classes, working with the Developmental Math Advisor, and monitoring during the semester.

Course Rationale

As with all developmental math courses, Elementary Algebra is designed to provide you with the mathematical foundation and personal confidence to enable you to use mathematics in your future life. This course is designed to prepare you for either (1) MATD 0385 Developing Mathematical Thinking followed by MATH 1332, 1333, or 1342, or (2) MATD 0390 Intermediate Algebra and the algebra-based courses which follow it. It also may provide you with sufficient preparation to pass the math portion of the THEA or Compass test. It also offers a way to prepare for MATH 1332, 1333, and 1342, after you have passed the math portion of the THEA or Compass test even if you do not take MATD 0385.

Additional Services and Policies at ACC

Use of ACC email: All College e-mail communication to students will be sent solely to the student’s ACCmail account, with the expectation that such communications will be read in a timely fashion. ACC will send important information and will notify you of any college related emergencies using this account. Students should only expect to receive email communication from their instructor using this account. Likewise, students should use their ACCmail account when communicating with instructors and staff. Instructions for activating an ACCmail account can be found at http://www.austincc.edu/accmail/index.php

Testing Center Policy: Under certain circumstances, an instructor may have students take an examination in a testing center. Students using the Academic Testing Center must govern themselves according to the Student Guide for Use of ACC Testing Centers and should read the entire guide before going to take the exam. To request an exam, one must have:

1. ACC Photo ID (info at http://www.austincc.edu/support/admissions/student_id.php)
2. Course Abbreviation (e.g., ENGL)
3. Course Number (e.g., 1301)
4. Course Synonym (e.g., 10123)
5. Course Section (e.g., 005)
6. Instructor’s Name

Do NOT bring cell phones to the Testing Center. Having your cell phone in the testing room, regardless of whether it is on or off, will revoke your testing privileges for the remainder of the semester. ACC Testing Center policies can be found at http://www.austincc.edu/testctr/

Student and Instructional Services: ACC strives to provide exemplary support to its students and offers a broad variety of opportunities and services. Information on these services and support systems is available at http://www.austincc.edu/s4/

Links to many student services and other information can be found at http://www.austincc.edu/current/

ACC Learning Labs provide free tutoring services to all ACC students currently enrolled in the course to be tutored. The tutor schedule for each Learning Lab may be found at: http://www.austincc.edu/tutor/students/tutoring.php

For help setting up your ACCeID, ACC Gmail, or ACC Blackboard, see a Learning Lab Technician at any ACC Learning Lab: http://www.austincc.edu/tutor/locations.php
Incomplete Grade Policy: Incomplete grades (I) will be given only in very rare circumstances. Generally, to receive a grade of "I", a student must have taken all examinations, be passing, and after the last date to withdraw, have a personal tragedy occur which prevents course completion. An Incomplete grade cannot be carried beyond the established date in the following semester. The completion date is determined by the instructor but may not be later than the final deadline for withdrawal in the subsequent semester.

Statement on Scholastic Dishonesty: A student attending ACC assumes responsibility for conduct compatible with the mission of the college as an educational institution. Students have the responsibility to submit coursework that is the result of their own thought, research, or self-expression. Students must follow all instructions given by faculty or designated college representatives when taking examinations, placement assessments, tests, quizzes, and evaluations. Actions constituting scholastic dishonesty include, but are not limited to, plagiarism, cheating, fabrication, collusion, and falsifying documents. Penalties for scholastic dishonesty will depend upon the nature of the violation and may range from lowering a grade on one assignment to an “F” in the course and/or expulsion from the college. See the Student Standards of Conduct and Disciplinary Process and other policies at http://www.austincc.edu/current/needtoknow

Student Rights and Responsibilities: Students at the college have the rights accorded by the U.S. Constitution to freedom of speech, peaceful assembly, petition, and association. These rights carry with them the responsibility to accord the same rights to others in the college community and not to interfere with or disrupt the educational process. Opportunity for students to examine and question pertinent data and assumptions of a given discipline, guided by the evidence of scholarly research, is appropriate in a learning environment. This concept is accompanied by an equally demanding concept of responsibility on the part of the student. As willing partners in learning, students must comply with college rules and procedures.

Statement on Students with Disabilities: Each ACC campus offers support services for students with documented disabilities. Students with disabilities who need classroom, academic or other accommodations must request them through the Office for Students with Disabilities (OSD). Students are encouraged to request accommodations when they register for courses or at least three weeks before the start of the semester, otherwise the provision of accommodations may be delayed.

Students who have received approval for accommodations from OSD for this course must provide the instructor with the ‘Notice of Approved Accommodations’ from OSD before accommodations will be provided. Arrangements for academic accommodations can only be made after the instructor receives the ‘Notice of Approved Accommodations’ from the student.

Students with approved accommodations are encouraged to submit the ‘Notice of Approved Accommodations’ to the instructor at the beginning of the semester because a reasonable amount of time may be needed to prepare and arrange for the accommodations. Additional information about the Office for Students with Disabilities is available at http://www.austincc.edu/support/osd/

Safety Statement: Austin Community College is committed to providing a safe and healthy environment for study and work. You are expected to learn and comply with ACC environmental, health and safety procedures and agree to follow ACC safety policies. Additional information on these can be found at http://www.austincc.edu/ehs. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the Emergency Procedures poster and Campus Safety Plan map in each classroom. Additional information about emergency procedures and how to sign up for ACC Emergency Alerts to be notified in the event of a serious emergency can be found at: http://www.austincc.edu/emergency/

Please note, you are expected to conduct yourself professionally with respect and courtesy to all. Anyone who thoughtlessly or intentionally jeopardizes the health or safety of another individual will be dismissed from
the day’s activity, may be withdrawn from the class, and/or barred from attending future activities.

You are expected to conduct yourself professionally with respect and courtesy to all. Anyone who thoughtlessly or intentionally jeopardizes the health or safety of another individual will be immediately dismissed from the day’s activity, may be withdrawn from the class, and/or barred from attending future activities.

STUDENT LEARNING OUTCOMES FOR MATD 0370 (Last Revised Spring 2012):

Upon successful completion of this course, students will be able to:

1. Perform operations involving integers, fractions, decimals, percents, signed exponents, scientific notation, ratios and proportions.
2. Solve problems involving geometric figures including perimeter, area, similarity, and the Pythagorean Theorem.
3. Use appropriate forms of linear equations to identify slope, intercepts, and to graph lines. Find linear equations from given points and graphs of lines. Find solutions to systems of two equations by graphing.
4. Solve applied problems by defining variables, writing equation(s), solving equation(s), and writing an answer to the question in context. Problems requiring quadratic equations are included as well as problems requiring single linear equations and systems of linear equations.
5. Factor and perform operations to combine and/or simplify expressions and solve equations including numerical, some polynomial, and some rational expressions and equations. Simplify some radical expressions.
6. Use mathematical language, symbols, and notation to communicate mathematical concepts, demonstrate reasoning, and solve problems.

COMMON COURSE OBJECTIVES FOR MATD 0370 ELEMENTARY ALGEBRA (Last Revised Oct 2009):

The following objectives are listed in a sequence ranging from the simple to the more complex. As such, this document should not be viewed as a chronological guide to the course, although some elements naturally will precede others. These elements should be viewed as mastery goals which will be reinforced whenever possible throughout the course.

Overall objectives:

A. Students will feel a sense of accomplishment in their increasing ability to use mathematics to solve problems of interest to them or of use in their chosen fields. Students will attain more positive attitudes based on increasing confidence in their abilities to learn mathematics.

B. Students will learn to understand material using standard mathematical terminology and notation when presented either verbally or in writing.

C. Students will improve their skills in describing what they are doing as they solve problems using standard mathematical terminology and notation.

1. Description and classification of whole numbers, integers, and rational numbers using sets and the operations among them
   a. identify and use properties of real numbers
   b. simplify expressions involving real numbers
   c. evaluate numerical expressions with integral exponents

2. Polynomials
   a. distinguish between expressions that are polynomials and expressions that are not
   b. classify polynomials in one variable by degree and number of terms
   c. simplify polynomials
   d. add, subtract, multiply (including the distributive law), and divide polynomials (including division by monomials, but excluding long division)
   e. factor polynomials in one or more variables (including factoring out the greatest common factor, factoring by grouping, factoring trinomials in which the leading coefficient is one, factoring trinomials in which the leading coefficient is not one, and factoring the difference of two squares)
   f. understand and use the exponent laws involving integer exponents
   g. convert numbers into and out of scientific notation and perform multiplication and division with numbers written in scientific notation

3. Solve linear equations in one variable involving integral, decimal, and fractional coefficients and solutions
4. Solve and graph linear inequalities
5. Application problems
   a. write and evaluate linear expressions from verbal descriptions
   b. solve application problems which lead to one of the following types of equations: linear equations in one variable, systems of two linear equations in two variables, quadratic equations, and rational equations with monomial numerators and denominators
   c. solve literal equations for a specified variable using addition and multiplication principles
   d. use given data to estimate values and to evaluate geometric and other formulas
   e. solve problems involving the Pythagorean theorem, similar triangles, and proportions
6. Linear equations in two variables
   a. identify the relationship between the solution of a linear equation in two variables and its graph on the Cartesian plane
   b. understand and use the concepts of slope and intercept
   c. determine slope when two data points are given
   d. graph a line given either two points on the line or one point on the line and the slope of the line
   e. write an equation of a line given one point on the line and the slope of the line, or two points on the line
   f. identify lines given in standard, point-slope, or slope-intercept forms and sketch their graphs
   g. solve systems of linear equations
7. Quadratic equations
   a. find solutions to quadratic equations using the technique of factoring and using the principle of square roots
   b. recognize a need to use the quadratic formula to solve quadratic equations and solve quadratic equations by using the quadratic formula when some simplification of square roots is needed
8. Description and classification of irrational numbers
   a. simplify radical expressions
   b. use decimal approximations for radical expressions
9. Rational expressions
   a. determine for which value(s) of the variable a rational expression is undefined
   b. simplify rational expressions containing monomials, binomials, and trinomials
   c. multiply and divide rational expressions containing monomials, binomials, and trinomials
   d. add and subtract rational expressions with like denominators and rational expressions with unlike denominators (only monomials and binomials that do not require factoring)
10. Geometry
    a. understand the difference between perimeter and area and be able to use formulas for these appropriately
    b. solve application problems involving angles and polygons