

## Department Syllabus

**Course Description (MATD 0370 Elementary Algebra) :** 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 TEXTS/MATERIALS Text:** My Math Lab which includes the online version of the text *Elementary Algebra, Concepts and Applications*, 8<sup>th</sup> Edition, Bittinger & Ellenbogen ISBN 0-321-23388-3

**Supplemental Materials:** Rectangular coordinate graphing paper, scientific or non-graphing calculator

**Prerequisite:** C or better in Basic Math Skills (MATD 0330), or its equivalent knowledge, or a passing score on the MATD 0370 placement test.

**Instructional Methodology:** This course is taught in the classroom as a lecture/discussion course.

**Course Rational:** Welcome to Elementary Algebra. Elementary Algebra is designed to provide you with the mathematical foundation and personal confidence to enable you to use mathematics in your future life, as are all developmental courses. This course is designed to prepare you for MATD 0390 Intermediate Algebra and the algebra-based courses, which follow it. It also may provide you with sufficient preparation to be able to pass the math portion of the THEA test. It also offers you one way to prepare for MATH 1332 (College Mathematics), 1342 (Elementary Statistics), and 1333 (Mathematics for Measurement) after you have passed the math portion of the state approved test.

**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 Dev Math Advisor, and monitoring during the semester. Additional information about ACC's mathematics curriculum and faculty is available on the Internet at <http://www.austincc.edu/math/>

**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 serious situation occur which prevents course completion. An instructor may award a grade of "I" (Incomplete) if a student was unable to complete the last of the objectives for the passing grade in a course. 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.

**Attendance/Class Participation Policy:** Regular and punctual class and laboratory 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 is required in this course. Students who have excessive absences may be withdrawn. TSI-mandated students with excessive absences should be withdrawn.

**Withdrawal Policy:** The deadline to withdraw is Monday April 23, 2012. It is the responsibility of each student to ensure that his or her name is removed from the roll if he or she decides 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-mandated students with excessive absences should be withdrawn. After the withdrawal date, neither the student nor the instructor may initiate a withdrawal.

**Reinstatement Policy:** The instructor may make reinstatement if the withdrawal was made in error. The deadline is the same as the withdrawal date.

### **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:

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

**Course-Specific Support Services:** ACC main campuses have Learning Labs, which offer free first-come first-serve tutoring in mathematics courses. Both tutors and computer tutorials are available. The locations, contact information and hours of availability of the Learning Labs are posted at: <http://www.austincc.edu/tutor>

**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>

**Students 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/>

**Statement Student Safety:** "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.

**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>.

**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.

The web address for student services is: <http://www.austincc.edu/support/>

The ACC student information can be found at: <http://www.austincc.edu/current/needtoknow/>

**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:

- **ACC Photo ID**
- Course Abbreviation (e.g., ENGL)
- Course Number (e.g., 1301)
- Course Synonym (e.g., 10123)
- Course Section (e.g., 005)
- 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 Summary Guide for Use of ACC Testing Centers**

Austin Community College is pleased to provide testing services to ACC faculty and students. In order to ensure test integrity and adequate space for testing, ACC has established the following guidelines:

#### **C. STUDENT TEST REQUEST FORM**

1. Students are required to complete the Student Test Request Form which contains the following student information:

#### **E. TESTING MATERIALS.**

Students should bring *only* the materials that an instructor has allowed for a given test.

1. The Testing Centers provide the following approved items:

- c. All types of paper
2. Having unauthorized materials (food, drinks, tobacco items, cell phones and other electronic devices, etc) with you while testing is considered **scholastic dishonesty** and may subject you to disciplinary action. Unauthorized items must be stored elsewhere, in a locker, or shelved in the Testing Center at your own risk.

#### **F. LOCKERS**

1. You are responsible for the return of your locker key to Testing Center Staff.
2. Your property will not be returned in the case of a lost key until a report is filed with Campus Police.
3. The incident will be reported to Admissions Director and a hold will be placed on your record until the key is returned or replaced.

#### **G. CHILDREN ARE NOT ALLOWED IN TESTING CENTERS AND ARE NOT TO BE LEFT UNATTENDED ON ANY ACC CAMPUS.**

#### **H. SEATING POLICY**

1. The Testing Center may assign seating
2. When the Center is full, you may be asked to sign a waiting list, take a ticket or line up outside the Center.
3. Students are required to wait again in line, if one exists, if they desire to take more than one test at a time.

#### **I. BREAKS DURING TESTING**

1. Students may not leave the Testing Center for breaks, to drink water, or go to the restroom.
2. Only with a medical statement from a doctor may a student be allowed to leave the Testing Center for a break during the test.

#### **J. SCORING OF TESTS**

In this course I will score all tests. Keep the yellow copy of the Student Test Request Form until your graded test is returned to you. This proves you took the exam.

#### **K. GRADES OF INCOMPLETE**

Testing for grades of Incomplete require an Incomplete Grade Form or verification from Admissions and Records and signature of instructor.

#### **L. HOURS OF OPERATION**

1. Hours of operations for all Centers are located on the web at <http://www.austincc.edu/testctr/> (Our hours are noted on your calendar for test 1)
2. Hours are subject to change without notice due to emergencies or unforeseen circumstances.
3. Students will not be admitted and new test materials will not be distributed within 20 minutes of the stated closing time.
4. All test materials are collected from students 30 minutes after closing time.

**M. SCHOLASTIC DISHONESTY** The testing center is monitored as students are testing. Any student suspected of/or caught cheating (including using unauthorized materials) will be referred to the appropriate administrator.

## **Common Course Objectives for MATD 0370 Elementary Algebra**

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.

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, and divide polynomials, 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)
  - e. understand and use the exponent laws involving integer exponents
  - f. 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
  - 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
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 simplification of square roots other than perfect squares is not needed
- 8. Description and classification of irrational numbers
  - a. simplify perfect square 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 and unlike denominators
- 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