MATD 0390 Intermediate Algebra
First-Day Handout for Students

Intermediate Algebra Online Course
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MATD 0390-001 synonym 04984
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Office Hours: Fridays 4:30-5:50 pm and by appointment

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Required Texts/Materials:
- You can access the chapters from the textbook covered in the first few days online at http://www.austincc.edu/mthdept2/text/ password acc0390 before you buy your text.

MyMathLab access: MyMathLab is required in this course. All new textbooks purchased at an ACC bookstore include MyMathLab access. It is not included with the purchase of a used book, and may not be included with a new book purchased at a different bookstore. Refer to the handout Information about MyMathLab.

Supplemental Required Materials: Scientific calculator

Prerequisite: C or better in Elementary Algebra, MATD 0370, or its equivalent knowledge, or a passing score on the MATD 0390 placement test. Additional information about ACC’s mathematics curriculum and faculty is available on the Internet at http://www.austincc.edu/math/.

ACC Student Email Accounts: All email correspondence from me will go to your ACC gmail account. Please make sure that you have activated this email address, and enter this as your email address on your Orientation Form. For more information about ACC Student email, please visit http://www.austincc.edu/google/

COURSE DESCRIPTION
MATD 0390 INTERMEDIATE ALGEBRA (3-4-0). A course designed to develop the skills and understanding contained in the second year of secondary school algebra. Topics include review of properties of real numbers, functions, algebra of functions, inequalities, polynomials and factoring, rational expressions and equations, radical expressions and equations, quadratic functions and their graphs, solving quadratic equations, and exponential functions. The same course is sometimes offered in a one hour (0190) and two hour (0290) format.

INSTRUCTIONAL METHODOLOGY
This is an online course.

COURSE RATIONALE
This course is designed to prepare students for various college-level science and mathematics courses. After succeeding in this course, students may enroll in a number of courses in science, mathematics and various technical areas. These include General College Physics, General Chemistry, Magnetism and DC Circuits, AC Circuits, Manufacturing Materials and Processes, Math for Business and Economics, and College Algebra.

Attendance (participation) is required in this course. Students who do not log in to MyMathLab on a weekly basis or who fail to progress in the course may be dropped from the course. You are responsible for the material covered and any assignments that are due. See also the Texas Success Initiative (TSI) Warning below.
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 Dev Math Advisor, and monitoring during the semester.

Withdrawal policy: It is the student’s responsibility to initiate all withdrawals in this course. The instructor may withdraw students for lack of progress but makes no commitment to do this for the student. After the withdrawal date, neither the student nor the instructor may initiate a withdrawal. The last day to withdraw from a course this semester is April 23, 2012.

Reinstatement policy: Students who withdraw or are withdrawn generally will not be reinstated unless they have completed all course work, projects, and tests necessary to place them at the same level of course completion as the rest of the class. After the last day to withdraw, neither the instructor nor the student may initiate reinstatement into the course.

Grading Policy
Your final grade in this course will be computed from 5 different components. They include homework (both online and on paper), online quizzes, tests and a final. They will be distributed as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Homework</td>
<td>5%</td>
</tr>
<tr>
<td>Online Homework</td>
<td>5%</td>
</tr>
<tr>
<td>Quiz average</td>
<td>10%</td>
</tr>
<tr>
<td>3 tests</td>
<td>20% each</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
</tbody>
</table>

Written Homework: You will have 4 written homework assignments, each spanning a number of sections. Only part of each assignment will be graded. The assignments and due dates can be viewed by visiting the homework page. Answers are provided for almost all of the assigned problems. You will be graded on the quality and completeness of the work you show explaining how the correct answer is found. No credit will be given for correct answers without supporting work.
This should represent your best possible work. Papers that are poorly organized or difficult to read will be assigned a lower score or not graded. Late homework will not be accepted for any reason. There are a variety of ways that you may submit homework assignments. Since you will be testing at an ACC testing center, probably the easiest is to send it to me via campus mail when you go to take a test. Go to the mailroom at the campus, get a date stamp on your work, put it in an inter-campus mail envelope (available in the mail room) and address it to "David Fonken, NRG." Ask one of the mailroom staff, if you need help. Alternatively, you may send it via US mail to "ACC Northridge Campus, 11928 Stonehollow Drive, Austin TX 78758, ATTN David Fonken." Be sure to include your name on all correspondence and make sure it is postmarked on or before the due date.

**Online Homework:** The online homework is found within the MyMathLab program and must be completed on a weekly basis. When you complete the online homework the grade is automatically saved and sent to me.

**Quiz average:** The software we are using for this course is MyMathLab. The majority of your time will be spent learning the material in the program by viewing videos and working practice problems. The software will explain the material to you and ask you to work problems, giving you immediate feedback with corrections if needed. When you feel comfortable with the material and have completed both the online and written homework, you are ready for a Quiz. Each quiz has about 15 questions and covers approximately 2 or 3 sections from the textbook. You may take this quiz up to three times and it will record the highest of those three. There are a total of 20 quizzes for this course.

**Tests:** You will be required to take three (3) tests and a final exam that are not on the computer. These will be paper and pencil exams that will be administered at any one of the ACC testing centers. When filling out the Online Orientation Form you will let me know which of these testing centers you will use for all of your tests. For each test, there will be a scheduled week in which you must go to a testing center and take the exam. You may take tests early if you are working ahead but you must give a 1 week notice so that I may get the correct test to the correct center. **No make-ups will be given.** For more info on the ACC testing center go to: [http://www.austincc.edu/testctr/](http://www.austincc.edu/testctr/)

**Final Exam:** You are required to take a final exam on campus in an ACC testing center. If you do not take the final exam you will receive an F for the course, regardless of your class average. If it improves your overall course grade, I will also use this score to replace the lowest of your test scores.

**Incomplete grades** (I) are given only in very rare circumstances. Generally, to qualify for an "I", a student must have taken all exams and assignments, have a passing grade, and have a personal situation occur that prevents course completion after the last day to withdraw.

**In Progress grades** (IP) are also rarely given. In order to earn an "IP" grade the student must remain in the course, be making progress in the material, not have excessive absences, and not be meeting the standards set to earn the grade of C or better in the course. Students who are given an IP grade must register and pay tuition for the same course again to receive credit. Students who make a grade of IP should not go on to the next course.

**Course-Specific Support Services**

- **Learning Lab:** ACC main campuses have Learning Labs that offer free tutoring (first-come first-serve) in mathematics courses. The locations, contact information, and hours of availability of the Learning Labs are available from [http://www2.austincc.edu/tutor](http://www2.austincc.edu/tutor). Software and videotapes to support this particular text are available in the Learning Labs. Students who need regular tutoring are encouraged to use the Learning Labs before they get very far behind.
- **Software:** See description of MyMathLab under “Required Materials” in this handout.
Pearson tutoring: Pearson has a tutoring center that is available by phone for students using any of their texts. Information about the service can be found at [www.aw-bc.com/tutorcenter/](http://www.aw-bc.com/tutorcenter/). Hours of operation are Sun-Thur: 4 PM - 11 PM Central time. Students toll-free: 1.800.877.3016 Instructor info: 1.800.666.8801 Fax: 1.877.262.9774 Email Questions: mtutor@pearson.com

Videos on DVD: These are available for viewing in the LRS and are recommended for students who miss class.

Student Services
The web address for student services is [http://www.austincc.edu/support/advising/index.php](http://www.austincc.edu/support/advising/index.php)
The ACC student handbook can be found at [http://www.austincc.edu/handbook](http://www.austincc.edu/handbook)

Scholastic Dishonesty “Acts prohibited by the college for which discipline may be administered include scholastic dishonesty, including but not limited to, cheating on an exam or quiz, plagiarizing, and unauthorized collaboration with another in preparing outside work. Academic work submitted by students shall be the result of their thought, work, research or self-expression. Academic work is defined as, but not limited to, tests, quizzes, whether taken electronically or on paper; projects, either individual or group; classroom presentations; and homework.”

Student Discipline Policy Classroom behavior should support and enhance learning. Behavior that disrupts the learning process will be dealt with appropriately, which may include having the student leave class for the rest of that day. In serious cases, disruptive behavior may lead to a student being withdrawn from the class. ACC's policy on student discipline can be found in the Student Handbook under Policy and Procedures [http://www.austincc.edu/handbook](http://www.austincc.edu/handbook)

Students with Disabilities "Each ACC campus offers support services for students with documented physical or psychological disabilities. Students with disabilities must request reasonable accommodations through the Office of Students with Disabilities on the campus where they expect to take the majority of their classes. Students are encouraged to do this three weeks before the start of the semester.”

“Heads who are requesting accommodation must provide the instructor with a letter of accommodation from the Office of Students with Disabilities (OSD) at the beginning of the semester. Accommodations can only be made after the instructor receives the letter of accommodation from OSD.”

Academic Freedom “Institutions of higher education are conducted for the common good. The common good depends upon a search for truth and upon free expression. In this course the professor and students shall strive to protect free inquiry and the open exchange of facts, ideas, and opinions. Students are free to take exception to views offered in this course and to reserve judgment about debatable issues. Grades will not be affected by personal views. With this freedom comes the responsibility of civility and a respect for a diversity of ideas and opinions. This means that students must take turns speaking, listen to others speak without interruption, and refrain from name-calling or other personal attacks.”

Course Objectives: (revised July 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 useful 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.

**Computational:**

1. Evaluate a function using function notation.
2. Find the domain of a function.
3. Perform elementary arithmetic operations with functions.
4. Perform division of polynomials
5. Perform elementary arithmetic operations with rational expressions that require factoring up to and including the sum or difference of cubes.
6. Simplify a complex fraction, including one with negative exponents.
7. Simplify an expression with fractional exponents.
8. Simplify a radical expression, including rationalizing a monomial or binomial denominator.
9. Perform elementary arithmetic operations with complex numbers.

**Equation and Inequality Solving:**

1. Solve an absolute value equation.
2. Solve a rational equation, including one with a quadratic expression in the denominator.
3. Solve an equation with one radical.
4. Recognize an extraneous root.

**Using Forms and Formulas**

1. Graph a function, such as a simple absolute value or rational function, by completing a table and plotting points.
2. Solve a quadratic equation with real or non-real solutions.
3. Find the midpoint and the distance between two points.
4. Complete a square to rewrite an equation for a circle in standard form and identify its center and radius.
5. Determine if a formula, correspondence, table or graph represents a function.

**Graphing:**

1. Graph a linear inequality on the Cartesian plane.
2. Graph a system of linear inequalities on the Cartesian plane.
3. Graph and analyze a linear and quadratic function.
4. Sketch a quadratic function, written in the form $f(x)=a(x-h)^2+k$, using transformations.
5. Sketch a circle from its standard form.

**Applications:**

1. Represent English descriptions of numerical relationships in algebraic form.
2. Solve application problems including, but not limited to, linear and quadratic models, direct and inverse variation, and those requiring 2x2 systems of linear equations

Last Updated Friday, April 6, 2012
Send comments and questions to David Fonken: fonken@austincc.edu