Course Information Handout
MATD 0390 Intermediate Algebra
Distance Learning Synonym # 16741
11-Week Summer Term 2008

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Required Textbook
Academic Systems Intermediate Algebra Personal Academic Notebook

Important Information About the Text
You must buy a new book from an ACC bookstore. Do not buy a book from any other bookstore. Do not buy a used book. Each book comes with a software validation code that works for only one student. A used book will not have a working validation code. The Rio Grande campus bookstore stocks the most distance learning textbooks, and it is located at 817 W. 12th street. You may prefer to order your book online from ACC at http://www.whywaitforbooks.com.

When you purchase your book, you should not open the package until you are sure that this is the right course for you. Once the shrink-wrap is opened, you cannot return it to the bookstore for a refund. If you are unsure about whether or not you should take this course, please contact me for advising.

In your shrink-wrapped package is a piece of cardboard containing your validation code. Once you decide to stay in the class and you open your book, be careful not to lose this validation code. You will have about a 10-day grace period from the beginning of the semester to use the software without entering the validation code, but then in order to continue you will be prompted to enter this number.

Supplemental Materials
You will need your book, paper, pencils, eraser, and a scientific calculator while working. Graphing paper is also nice, but you can get by without it.

Prerequisite
The prerequisite for this course is the completion of MATD 0370 Elementary Algebra with a grade of C or better, or its equivalent knowledge, or a passing score on the placement test.

Course Description
This course is designed to develop the skills and understanding contained in the second year of high 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.

Course Rationale
This course is designed to prepare you for various college-level mathematics and science courses such as College Algebra, Math for Business and Economics, General College Physics, General Chemistry, Magnetism and DC Circuits, AC Circuits, and Manufacturing Materials & Processes. As with all developmental math courses, this course is also designed to provide you with the mathematical foundation and personal confidence to enable you to use mathematics in your life.
Course Objectives for Intermediate Algebra  (Warning: this page may make your eyes glaze over.)

Overall Objectives
A. Students will feel a sense of accomplishments 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 elementary arithmetic operations with rational expressions that require factoring up to and including the sum or difference of cubes.
5. Simplify a complex fraction, including one with negative exponents.
6. Simplify an expression with fractional exponents.
7. Simplify a radical expression, including rationalizing a monomial or binomial denominator.
8. Perform elementary arithmetic operations with complex numbers.

Equation and Inequality Solving
1. Solve an absolute value equation.
2. Solve an absolute value inequality of the form $|x| < a$ or $|x| > b$
3. Solve a rational equation, including one with a quadratic expressions in the denominator.
4. Solve an equation with one radical.
5. 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 an 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. Graph exponential functions using tables.
6. 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 $2 \times 2$ systems of linear equations.
**Instructional Methodology**
This section is a computer-mediated distance learning course. This special section of the course uses the Academic Systems software, which is completely web-based. The interactive software provides visual explanations and includes an audio component so that you may listen to the explanations. It is called "interactive" because you are continually being prompted for input.

In this class, you will be in charge of your learning in a way that is different from a traditional lecture class. The format of the course is somewhat self-paced, which means you may complete the material before the end of the semester. It also means that you may spend less time on familiar topics and more time on troublesome topics. In order to complete the course within the semester, you must keep up with the weekly schedule provided. In order to succeed in this class, you should plan to spend about 9 to 15 hours each week working on the material, depending on how much of the material is already review for you.

**Minimum Computer Requirements**
A full description of the computer requirements can be found at [http://support.plato.com/downloads/accountability/PLE/PLE_1.1_System_Requirements.pdf](http://support.plato.com/downloads/accountability/PLE/PLE_1.1_System_Requirements.pdf)

The following is a summary of what you will need:

**Computer operating system:** Windows 2000 Professional with Service Pack 4, or Windows XP with Service Pack 2 Professional or Home Edition, or Windows Vista.
**Processor Speed:** 1 GHz or Faster
**Memory:** 512 MB or more
**Sound Card:** Microsoft compatible sound card, and headset or speakers
**Internet Connection:** 128 Kbps per simultaneous workstation
**Web Browser:** Internet Explorer 6.0 with Service Pack 1 or Internet Explorer 7.0. For Windows Vista you must have Internet Explorer 7.0.

**Required Plug Ins:** Flash Player and Adobe Reader.

For Technical Support, please submit an online request at [http://support.plato.com/ASAlgebra](http://support.plato.com/ASAlgebra), or call 952-607-3899.

**Using Academic Systems Algebra Software**
Please watch two videos before you begin. The first is at [http://support.plato.com/AS-Alg](http://support.plato.com/AS-Alg). Click on “Academic Systems Student Orientation Tutorial”. This is a 5 minute video that will show you how to log on and start a lesson. Also at this site there is a Student Quick Start Guide that you may want to download and print out for reference.

Second, to learn how to navigate through the courseware, please watch the video at [http://asalgebra.platoweb.com/content/asalgebra/Help/StudentOrientation/htmlpages/index.htm](http://asalgebra.platoweb.com/content/asalgebra/Help/StudentOrientation/htmlpages/index.htm) Click on “Getting Started Lesson”. This will take you about 15 – 20 minutes to complete.

**Logging On**
When you are ready to begin a lesson, go to [http://asalgebra.platoweb.com](http://asalgebra.platoweb.com). Your Account Login is ACC. Your PLATO Name is your first initial followed by your 7 digit student ID number. Your password is the word “student”. Email me at [kkelton@austincc.edu](mailto:kkelton@austincc.edu) if you are unsure of your student ID number.
Organization of the Software
The software for the course is divided into Topics. Each Topic is divided into Lessons. Within each Lesson are some or all of the following six Modules:

Overview: • Brief summary of prerequisite skills for the lesson
          • Pretest (may only be taken once)

Explain: • Mathematics instruction
         • Check for understanding problems with feedback
         • Help line: Red Phone icon gives hints or simplified explanation
         • Take a Closer Look: Magnifying Glass icon gives a more detailed explanation
         • Glossary Words: Click on any underlined word for the on-line definition

Apply: • Practice problems to apply the skills learned in Explain
        • Link to Explain: Icon with Sun (like Explain) will link from Apply back to explain information related to the problem
        • Explanation of the Expression Editor, if needed

Explore: • Optional module available with some lessons
         • More challenging problems to explore and discover mathematics

Evaluate: • Quiz for the lesson
          • Homework and Practice Test in the book should be completed before entering this module
          • Up to three attempts are allowed on the quiz; highest grade is recorded.

Homework: • Shown when you quit a lesson. Instead of doing this, please do the homework problems I have assigned on your Weekly Schedule.

Personal Academic Notebook
Your textbook is the Personal Academic Notebook (PAN). The textbook is divided into Topics, Lessons, and Modules just like the software. You should refer to this book when completing homework assignments, reviewing for tests, or to take the Practice Test to prepare for the Pretest (in the Overview Module on the computer) or to prepare for the Quiz (in the Evaluate Module on the computer).

Managing Your Time on the Computer
To make the best use of your time on the computer, you may use the following guidelines:

1. If you have previous knowledge of the material in a lesson, take the Practice Test in the Evaluate Module of your book. If you have no problems with this test, complete the Pretest in the Overview Module on the computer.

2. If you have difficulty with the problems on the Practice Test in the book or if you know that much of the material is new or problematic, begin with the Explain Module, then the Apply Module on the computer. Do your homework, then use the Practice Test in the book and the Overview Pretest on the computer to prepare for the Evaluate Quiz on the computer.

Evaluate Quiz Grade
Your grade on the lesson will typically come from the highest of three attempts on the Evaluate Quiz, unless you score 95 or more on the Overview Pretest and save that Pretest grade as your Quiz grade for that lesson.
My Course Policies and Procedures

Online Orientation
You will be required to complete an online orientation found on my website at www.austincc.edu/kkelton. Please submit this form by June 10th to ensure you are not dropped from the course.

Communication
I will communicate regularly with all of you through Blackboard, and/or email. The Blackboard URL is http://acconline.austincc.edu. You will need your ACCeID in order to log onto Blackboard. Information about your new ACCeID can be found at http://www.austincc.edu/acceid/. Please check our Blackboard regularly; you don’t want to miss an important announcement from me. I will leave you weekly instructions, reminders of due dates, and encouraging words. I will be in our chatroom every Tuesday from 12 – 1 for online office hours. You will also be able to view your grades through Blackboard.

Text Assignments
Instead of doing the online homework suggested by your software, I want you to do the textbook problems I have assigned. Assignments should be turned in by the due date indicated on the Weekly Schedule. These dates are provided to help you pace yourself through the material so that you will complete the course during the semester. Assignments may be submitted in a number of ways: 1) Scan and submit it through the digital dropbox on Blackboard 2) Scan and email it to me at kkelton@austincc.edu, 3) Go to any ACC campus mailroom and mail it to Kimberley Kelton, Pinnacle Campus, 4) send it U.S. mail to Kimberley Kelton, Austin Community College, 7748 Highway 290 West, Austin, Texas 78736. Text assignments will be checked for completeness. In order to receive full credit, you must do all assigned problems and show all work. Please ask for help if you need it. Each section is worth 5 points. Partially completed and/or late assignments will receive partial credit. If you do not complete a text assignment, a zero will be recorded for that grade.

Evaluate Quizzes
You will have one quiz grade for each lesson. If your Overview Module pretest score is 95% or more, the computer will ask you if you want to use that grade as your quiz grade for the Evaluate Module. If you want to keep that grade as your Evaluate quiz score, be sure to answer “Yes.” If your Overview Module pretest score is less than 95%, you should complete the lesson (in the Explain Module on the computer) as well as the practice test (in your PAN) for the lesson. Then take the quiz in the Evaluate Module on the computer. Up to three attempts are allowed on each quiz in the Evaluate Module. Each Overview pretest may be taken only once. You should not move on to the next lesson until you have scored at least 80% correct on the Evaluate quiz. Please ask for help if you need it. If you do not take a quiz, a zero will be recorded for that grade.

Tests
You will have four regular tests and a comprehensive final exam. Tests will be taken in an ACC testing center. Testing dates are indicated on your weekly schedule. Please take the tests at your earliest opportunity. Testing Center information may be found at http://www.austincc.edu/testctr/.

Missed Tests
If you do not take a test by the deadline, a zero will be recorded for that test. However, if your final exam score is higher than any of the three tests, then I will replace that score with your final exam score. So, in that case, your final will count twice. If you should miss a test, then obviously the zero will be your lowest score, and the final will replace it.
Grading
Final overall grades will be calculated based on the following:

- Text Assignment Average: 10%
- Evaluate Quiz Average: 20%
- Test Average: 70%

90% - 100% A, 80% - 89% B, 70% - 79% C, 60% - 69% D, below 60% F

Incomplete grades
Incomplete grades (I) are given only in very rare circumstances. Generally, to qualify for a grade of "I", a student must have completed at least 80% of the course, including all exams, homework, and assignments, have a passing grade, and have a personal tragedy occur within the final 20% of the course which prevents course completion.

In Progress grades
In Progress grades (IP) are also rarely given. In order to earn an “IP” grade for a course 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 during the next semester.

TSI Warning
If you are relying on this course to meet a requirement that you be in mandatory remediation in mathematics this semester*, then i) if you are not "continually in attendance" in this course, you should be withdrawn from the course by your instructor, ii) if you withdraw yourself from this course or are withdrawn by your instructor, you will be automatically withdrawn from all of your other college courses if this is the only TSI-mandated course you are taking. *If you are unsure whether or not this warning applies to you, see an ACC advisor immediately.

Withdrawals
It is the student's responsibility to withdraw him/herself from the course if he/she stops participating for any reason. However, students may be dropped by me for failure to make sufficient progress. The withdrawal deadline is July 29th, 2008.

Reinstatement Policy
Students who withdrew or were 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.

Learning Lab
ACC main campuses have Learning Labs which offer free first-come, first-serve help with math from tutors and computer tutorials for math courses. Learning Lab information is posted at http://www.austincc.edu/tutor. Also, videotapes that cover all topics can be checked out in the Learning Resource Centers. Ask if you need help finding them.
Austin Community College Common Course Statements

Statement on 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. Students 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.

Statement on 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.

Statement on Scholastic Dishonesty Penalty
Students who violate the rules concerning scholastic dishonesty will be assessed an academic penalty that the instructor determines is in keeping with the seriousness of the offense. This academic penalty may range from a grade penalty on the particular assignment to an overall grade penalty in the course, including possibly an F in the course. ACC’s policy can be found in the Student Handbook page 33 or on the web at: http://www.austincc.edu/handbook.

Statement on 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.

Statement on Student Discipline
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 page 32 or on the web at: http://www.austincc.edu/handbook.

Student Services
The web address for student services is http://www.austincc.edu/support. The ACC student handbook can be found at http://www.austincc.edu/handbook.
**Weekly Schedule**

**Note:** This chart tells you the lessons you should be working on each week, which problems you should do as text assignments, when your assignments and quizzes are due, and test dates.

**Homework & Quizzes:** Each Monday, I need you to send your assignments from the previous week. I will receive it a few days later, but I will not consider it late as long as it was mailed on Monday. Each Monday, the Evaluate Quizzes from the previous week are due.

**Tests:** Tests will be available during the weeks indicated. It is very important that you take your test by the deadline. Please realize that each Testing Center has its own hours, so you need to check [http://www.austincc.edu/testctr/](http://www.austincc.edu/testctr/) before you go to take your test.

<table>
<thead>
<tr>
<th>Week</th>
<th>Lessons</th>
<th>Textbook Assignments</th>
<th>Text Assignment &amp; Quiz Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 27 – Jun 1</td>
<td>Getting Started</td>
<td>This is a quick tutorial for using the program. You may not need to go through this if you feel comfortable after watching the videos suggested in this handout. Page 47: 3, 7, 9, 13, 15, 19, 21, 23, 25, 27, 29, 33, 35, 37, 39, 41, 45, 47, 51,55 page 65: 1, 5, 9, 13, 17, 21, 25</td>
<td>June 2</td>
</tr>
<tr>
<td>June 2 - 8</td>
<td>Exercise Set EII.C</td>
<td>Print this handout from your online software and do all problems. Page 113: 9, 11, 15, 17, 19, 23, 27, 29, 33, 37, 41, 49, 53</td>
<td>June 9</td>
</tr>
<tr>
<td>June 9 - 15</td>
<td>Test 1 (EII.B-EII.E)</td>
<td>Test 1 will be available Monday, June 9th through Sunday, June 15th. Page 134: 1, 5, 9, 11, 17, 21, 25, 29, 33, 41, 45, 53, 55  Page 231: 1, 5, 9, 13, 17, 21, 25</td>
<td>June 16</td>
</tr>
<tr>
<td>June 16 - 22</td>
<td>5.1</td>
<td>Page 259: 1, 3, 5, 7, 9, 13, 19, 23, 24, 27, 29, 33, 37, 41, 45, 49, 53, 55 Page 278: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27</td>
<td>June 23</td>
</tr>
<tr>
<td>June 23 - 29</td>
<td>Test 2 (EII.F – 5.3)</td>
<td>Test 2 will be available Monday, June 23rd through Sunday, June 29th. Page 434: 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, 41, 45, 49, 53  Page 465: 1,5,9,13,17,21,25,29,33,37,41,45,49,53,57,61,65,69,73,77,81,82, 83</td>
<td>June 30</td>
</tr>
<tr>
<td>July 7 - 13</td>
<td>Test 3 (8.1 – 8.4)</td>
<td>Test 3 will be available Monday, July 7th through Sunday, July 13th. Page 535: 1, 5, 7, 9, 13, 15, 17, 19 Page 569: 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, 41, 45, 49, 53, 57, 61, 65, 69, 73,77</td>
<td>July 14</td>
</tr>
<tr>
<td>July 14 - 20</td>
<td>10.1</td>
<td>Page 591: 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, 41, 45, 49 Page 618: Explore #25; Page 619: 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, 41, 49, 51</td>
<td>July 21</td>
</tr>
<tr>
<td>July 21 - 27</td>
<td>10.3</td>
<td>Page 639: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27 <strong>Test 4 will be available Wednesday, July 23rd through Tuesday, July 29th.</strong></td>
<td>July 28</td>
</tr>
<tr>
<td>Aug 4 - 11</td>
<td>12.1</td>
<td>Page 755: Homework 1, 3, 5, 7, 9, 11;  Page 757: Apply 1, 3, 5, 7, 9, 11, 13,15 <strong>Final Exam will be available Monday, August 4th through Monday, August 11th</strong></td>
<td>Aug 11</td>
</tr>
</tbody>
</table>

**Please Note:** I don’t foresee any changes in the schedule, but if there are any, I will notify you on Blackboard.