Division of Arts & Sciences
Department of Mathematics
Course Syllabus

**COURSE TITLE**  Intermediate Algebra

**COURSE NUMBER**  MAT 1033 CRN 30302

**PREREQUISITES**  Credit level MAT 0028 Minimum Grade of C. or CPT-Elem Algebra 072 or ACT Math 019 or SAT I Mathematics - Enhanced 440

**CREDIT HOURS**  3.0

**CONTACT HOURS**  45.0

**CLASS MEETING TIMES**  MTWR 3:00 – 4:40 in C235

**CLASS METHOD**  Traditional face-to-face

**INSTRUCTOR**  Robert Ames
robert.ames@fkcc.edu
Office # C 212
Phone 305-809-3528

**OFFICE HOURS**  MTWR 12:00-1:00 pm, 2:45 – 3:00, 4:40-5:55 pm

**COURSE DESCRIPTION**  This course is designed for students who require additional skills in algebra before taking MAC 1105, MGF 1106, MGF 1107 or STA 2023. The major topics include sets, linear equations and inequalities with applications, absolute value, polynomials and factoring, algebraic fractions, rational expressions with applications, exponents, roots and radicals, quadratic equations with applications, relations and functions, graphs, and systems of linear equations and inequalities with applications.

**COURSE OBJECTIVES**  Upon completion of the course, the student will be able to:

1. Use basic operations with real numbers and use algebraic terminology and laws
2. Understand basic function notation and evaluation
3. Solve and graph linear equations and inequalities
4. Solve systems of equations in more than one variable
5. Perform arithmetic operations with polynomials and rational expressions
6. Simplify radical expressions and solve equations containing them
7. Solve quadratic equations

**REQUIRED TEXTBOOK**  MyMathLab Student Stand Alone Access Kit. MyMathLab Course ID is ames46706. *(Intermediate Algebra, 11th Edition, Bittinger. Textbook is optional.)*

**PUBLISHER**  Pearson

**AUTHOR**  Marvin L. Bittinger

**ISBN**  0321199991X
**TEXTBOOK NOTE**

If you have a MyMathLab account with Pearson, simply engage the function that enrolls you in a new course using the CourseID *ames46706*. If you have never used MyMathLab before, simply follow the directions in the following text box. Regardless of whether or not you have an access code, temporary access is free for 14 days!

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**Directions for Creating Your Pearson MyMathLab Account**

1. Click here: [www.pearsonmylabandmastering.com](http://www.pearsonmylabandmastering.com).

2. Next click on “Student” under the “Register” heading at the right side of the screen.

3. You will be redirected to a page and asked to “Enter Your Course ID“. In the field marked “Course ID” enter *ames46706*. You will be redirected to a new page.

4. If you already have an account with Pearson, enter your “Username” and “Password”. Otherwise, you will need to follow the steps after clicking on “Create”.

5. After you complete step 4, you should be redirected to a screen that that asks you to either use an access code, use a credit card or paypal, or register with temporary access. It is thus possible for each student to register for access on the first day of class. Once you have completed this step, you should be asked if you wish to go to the course and the registration should be complete!
# Proposed Course Schedule

Please note: The course schedule is subject to change to meet the needs of the course and its students. If you miss a class, it is YOUR responsibility to stay current.

<table>
<thead>
<tr>
<th>Date</th>
<th>Textbook Chapters—Topics</th>
<th>MML Assignment Due Dates</th>
<th>Quizzes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-May (M)</td>
<td>Welcome, 1.1 / 1.2 – Solving Eqns / Formulas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-May (T)</td>
<td>1.3 / 1.4 – Applications / Sets / Interval Notation</td>
<td>HW #1 (1.1) due</td>
<td>Quiz #1</td>
</tr>
<tr>
<td>14-May (W)</td>
<td>1.5 / 2.1 – Sets / Ineqs / Graphs</td>
<td>HW #2 (1.1 – 1.3) due</td>
<td></td>
</tr>
<tr>
<td>15-May (R)</td>
<td>2.2 / 2.3 / 2.4 – Graphs / Functions / Linear Fcns</td>
<td>HW #3 (1.4 – 1.5) due</td>
<td>Quiz #2</td>
</tr>
<tr>
<td>19-May (M)</td>
<td>2.5 / 2.6 – Graphing Linear Eqs / Applications</td>
<td>HW #4 (1.5 – 2.2) due</td>
<td>Quiz #3</td>
</tr>
<tr>
<td>20-May (T)</td>
<td>3.1 / 3.2 / 3.3 – Systems / Methods of Solving</td>
<td>HW #5 (2.2 – 2.4) due</td>
<td></td>
</tr>
<tr>
<td>21-May (W)</td>
<td>3.4 / 3.7 – Applications / Systems of Inequalities</td>
<td>HW #6 (2.5 – 2.6) due</td>
<td>Quiz #4</td>
</tr>
<tr>
<td>22-May (R)</td>
<td>Review / Test #1 – 100 points</td>
<td>HW #7 (3.1 – 3.3) due</td>
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<tr>
<td>26-May (M)</td>
<td><strong>Memorial Day Holiday – College Closed</strong></td>
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<tr>
<td>27-May (T)</td>
<td>4.1 / 4.2 / 4.3 – Polynomials / Factoring</td>
<td>HW #8 (3.3, 3.4, 3.7) due</td>
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<tr>
<td>28-May (W)</td>
<td>4.4 / 4.5 / 4.6 – Factoring</td>
<td>HW #9 (3.7, 4.1) due</td>
<td>Quiz #5</td>
</tr>
<tr>
<td>29-May (R)</td>
<td>4.8 / 5.1 – Poly Apps / Rational Expressions</td>
<td>HW #10 (4.2, 4.3) due</td>
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<tr>
<td>2-Jun (M)</td>
<td>5.2 / 5.3 – Rational Expression Operations</td>
<td>HW #11 (4.4, 4.5) due</td>
<td>Quiz #6</td>
</tr>
<tr>
<td>3-Jun (T)</td>
<td>5.4 / 5.5 – Complex Fractions / Rat’l Equations</td>
<td>HW #12 (4.6, 4.8, 5.1) due</td>
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<tr>
<td>4-Jun (W)</td>
<td>5.6 / 5.8 – Applications / Proportions / Variation</td>
<td>HW #13 (5.1, 5.2) due</td>
<td>Quiz #7</td>
</tr>
<tr>
<td>5-Jun (R)</td>
<td>6.1 / 6.2 – Radicals / Rational Exponents</td>
<td>HW #14 (5.2 – 5.5) due</td>
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<tr>
<td>9-Jun (M)</td>
<td>Review / Test #2 – 100 points</td>
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<td></td>
<td><strong>Withdrawal Deadline</strong></td>
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<tr>
<td>10-Jun (T)</td>
<td>6.3 / 6.4 / 6.5 – Radical Expression Operations</td>
<td>HW #15 (5.6, 6.1) due</td>
<td>Quiz #8</td>
</tr>
<tr>
<td>11-Jun (W)</td>
<td>6.6 / 6.7 – Radical Equations / Applications</td>
<td>HW #16 (6.1 – 6.3) due</td>
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<tr>
<td>12-Jun (R)</td>
<td>6.8 / 7.1 – Complex Numbers / Quadratic Eqs</td>
<td>HWs #17 (6.3 – 6.5) due</td>
<td>Quiz #9</td>
</tr>
<tr>
<td>16-Jun (M)</td>
<td>7.2 / 7.3 – Quadratic Formula / Applications</td>
<td>HW #18 (6.6 – 6.8) due</td>
<td>Quiz #10</td>
</tr>
<tr>
<td>17-Jun (T)</td>
<td>7.4 – More Quadratic Equations / Review</td>
<td>HW #19 (6.8, 7.1) due</td>
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</tr>
<tr>
<td>18-Jun (W)</td>
<td>Test #3 – 100 points / Review</td>
<td>HW #20 (7.1 – 7.3) due</td>
<td></td>
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<tr>
<td>19-Jun (R)</td>
<td>Final Exam (Cumulative) – 100 points</td>
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</tbody>
</table>
1. Chapter 1 Solving Linear Equations and Inequalities
   1.1 Solving Equations
   1.2 Formulas and Applications
   1.3 Applications and problem Solving
   1.4 Sets, Notation, and Interval Notation
   1.5 Intersections, Unions, and Compound Inequalities

2. Chapter 2 Graphs, Functions, and Applications
   2.1 Graphs of Equations
   2.2 Functions and Graphs
   2.3 Finding Domain and Range
   2.4 Linear Functions: Graphs and Slope
   2.5 More on Graphing Linear Equations
   2.6 Finding Applications of Lines

3. Chapter 3 Systems of Equations
   3.1 Systems of Equations in Two Variables
   3.2 Solving by Substitution
   3.3 Solving by Elimination
   3.4 Solving Applied Problems: Two Equations
   3.7 Systems of Inequalities in Two Variables

4. Chapter 4 Polynomials and Polynomial Functions
   4.1 Introduction to Polynomials and Polynomial Functions
   4.2 Multiplication of Polynomials
   4.3 Introduction to Factoring
   4.4 Factoring Trinomials: $x^2 + bx + c$
   4.5 Factoring Trinomials: $ax^2 + bx + c, a\neq1$
   4.6 Special Factoring
   4.8 Applications of Polynomials Equations and Functions

5. Chapter 5 Rational Expressions, Equations, and Functions
   5.1 Rational Expressions and Functions: Multiplying, Dividing and Simplifying
   5.2 LCMs, LCDs, Addition and Subtraction
   5.3 Division of Polynomials
   5.4 Complex Rational Expressions
   5.5 Solving Rational Equations
   5.6 Applications and Proportions
   5.8 Variation and Applications

6. Chapter 6 Radical Expressions, Equations, and Functions
   6.1 Radical Expressions and Functions
   6.2 Rational Numbers as Exponents
   6.3 Simplifying Radical Expressions
   6.4 Addition, Subtraction, and More Multiplication
   6.5 More on Division of Radical Expressions
   6.6 Solving Radical Equations
   6.7 Applications Involving Powers and Roots
   6.8 The Complex Numbers

7. Chapter 7 Quadratic Equations and Functions
   7.1 The Basics of Solving Quadratic Equations
   7.2 The Quadratic Formula
   7.3 Applications Involving Quadratic Equations
   7.4 More on Quadratic Equations
STUDENT EVALUATION AND COURSE POLICIES

<table>
<thead>
<tr>
<th>STUDENT GRADE DETERMINATION</th>
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<tbody>
<tr>
<td><strong>50 %</strong></td>
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<tr>
<td><strong>17 %</strong></td>
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<tr>
<td><strong>17 %</strong></td>
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<tr>
<td><strong>17 %</strong></td>
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<tr>
<td><strong>600 total points</strong></td>
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</table>

<table>
<thead>
<tr>
<th>600 TOTAL COURSE POINTS</th>
<th>FKCC GRADING SCALE</th>
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<tbody>
<tr>
<td>A</td>
<td>540 – 600 course points</td>
</tr>
<tr>
<td>B</td>
<td>480 – 539 course points</td>
</tr>
<tr>
<td>C</td>
<td>420 – 479 course points</td>
</tr>
<tr>
<td>D</td>
<td>360 – 419 course points</td>
</tr>
<tr>
<td>F</td>
<td>359 course points and fewer</td>
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</table>

Test/Final Exam Policies

- All quizzes, tests and the final exam will be closed book/notes. The use of all mobile devices is strictly prohibited during quizzes, tests, and the final exam. You may use a calculator.
- Makeup for the Final Exam may be offered to students with emergencies, but only if they can provide acceptable documentation of the emergency (e.g., hospital admittance slip, etc.).
- There will be no makeups for the other three tests. Your lowest test grade (which could be a missed test) will be replaced with the average of your two highest test grades.
- There will be no makeups for any of the 10 quizzes. Your three lowest quiz grades (which could be missed quizzes) will be replaced with the average of your seven highest quiz grades.

Homework Policies

- To help you succeed in this course, you should do all of the MyMathLab homework assignments by the due date specified above in the course schedule.
- No homework assignments will be accepted past the MyMathLab due dates.

Classroom Policies

- It is expected that you will attend and be present from the beginning to the end of all class meetings. Attendance will be taken at all class meetings and reported to the college as required.
- Mobile devices need to be silenced during all class meetings.
- Academic dishonesty will not be tolerated and will result in a grade of zero for the assignment/quiz/test/exam in which it occurs, and possible notification to the Dean of Student Affairs and Accreditation.

Students are expected to familiarize themselves with FKCC Policies, which can be found in the current Student Handbook.