

**Angelina College**  
**Division of Science and Mathematics**  
**MATH 0330 – Intermediate Algebra**  
**Instructional Syllabus – Fall 2016 (MW)**

**I. BASIC COURSE INFORMATION:**

- A. Intermediate Algebra – MATH 0330 –A study of relations and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations. This course may not be used for degree credit and is not intended for transfer to a senior college. Three lecture hours and one laboratory hour each week. Lab fee.  
Prerequisite: MATH 0320 or equivalent.
- B. The intended audience is any student needing to strengthen their mathematics background before taking college level mathematics courses.
- C. Instructor: Avriila Klaus  
Office Location/Hours: by arrangement  
Phone: 903-841-8694  
E-mail Address: aklaus@angelina.edu

**II. INTENDED STUDENT OUTCOMES:**

**A. Core Objectives Required for this Course**

1. **Critical Thinking:** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. **Communication:** to include effective development, interpretation and expression of ideas through written, oral and visual communication
3. **Empirical and Quantitative Skills:** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

**B. Course Learning Outcomes for all Sections**

1. Define, represent, and perform operations on real and complex numbers.
2. Recognize, understand, and analyze features of a function.
3. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational expressions.
4. Identify and solve absolute value, polynomial, radical, and rational equations.
5. Identify and solve absolute value and linear inequalities.
6. Model, interpret, and justify mathematical ideas and concepts using multiple representations.
7. Connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines.

**III. ASSESSMENT MEASURES**

**A. Assessments for the Core Objectives**

1. **Critical thinking:** Students will demonstrate the application of critical thinking skills by utilizing reading, creative and appropriate problem solving techniques, and appropriate mathematical tools to solve problems. These skills will be assessed using a rubric in embedded test questions and/or written homework problems.

2. **Communication:** Students will communicate mathematical information using complete and correct notation and written and visual communication skills. A rubric will be used to assess written, oral, and visual communication skills.
3. **Empirical and Quantitative Skills:** Students will use empirical and quantitative skills to answer embedded test questions. These will be assessed using a rubric.

#### **B. Assessments for Course Learning Outcomes**

1. The student's ability to define, represent, and perform operations on real and complex numbers will be assessed through embedded test questions.
2. The student's ability to recognize, understand, and analyze features of a function will be assessed through embedded test questions.
3. The student's ability to recognize and use algebraic (field) properties, concepts, procedures, and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational equations will be assessed through embedded test questions.
4. The student's ability to identify and solve absolute value, polynomial, radical, and rational equations will be assessed through embedded test questions.
5. The student's ability to identify and solve absolute value and linear inequalities will be assessed through embedded test questions.
6. The student's ability to model, interpret, and justify mathematical ideas and concepts using multiple representations will be assessed on written homework problems.
7. The student's ability to connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines will be assessed through homework problems.

#### **IV. INSTRUCTIONAL PROCEDURES:**

The course is taught using a combination of lectures, discussions, and practice exercises. The amount of time spent using any one technique will vary from class to class and from lesson to lesson as determined to be most appropriate by the instructor.

#### **V. COURSE REQUIREMENTS AND POLICIES:**

##### **A. Required Textbooks and Recommended Readings, Materials and Equipment**

1. Introductory and Intermediate Algebra for College Students, 5<sup>th</sup> ed. by Blitzer (Pearson).
2. Access to MyLabsPlus (included with new book bought at AC bookstore)
3. The Angelina College mathematics program, including the developmental program, strives to keep up with modern standards. Therefore, in this course, students **are required** to bring and use a graphing or scientific calculator. **A graphing calculator (TI-83 or TI-84) is strongly recommended. TI-89 and TI-92 calculators may NOT be used.**
4. A 3-ring binder, loose-leaf notebook paper, and dividers.

##### **B. Course Policies – This course conforms to the policies of Angelina College as stated in the Angelina College Handbook.**

1. **Academic Assistance** – If you have a disability (as cited in Section 504 of the Rehabilitation Act of 1973 or Title II of the Americans with Disabilities Act of 1990) that may affect your participation in this class, you should see Ms. Sellestine Hunt, Room 200 of the Student Center. At a post-secondary institution, you must self-identify as a person with a disability; Ms. Hunt will assist you with the necessary information to do so. To report any complaints of discrimination related to disability, you should contact Mr. Steve Hudman, Student Center, Room 101 or [936-633-5292](tel:936-633-5292).
2. **Attendance** – Attendance is required as per Angelina College Policy and will be recorded every day. Any student with three (3) consecutive absences or four (4) cumulative absences may be dropped from the class. Not working on assignments, including MyLabsPlus homework, is considered non-participation which also subjects you to being dropped from the course. A student with six (6) cumulative absences by November 7<sup>th</sup> will be dropped with no

option to readmit. Records will be turned in to the academic dean at the end of the semester. Do not assume that non-attendance in class will always result in an instructor drop. **You must officially drop a class or risk receiving an F.** This is official Angelina College Policy.

### 3. Additional Policies Established by the Instructor

#### MAKE-UP EXAMS

No make-up exams will be offered. The grade on the final exam can replace the lowest exam grade, including the grades from a missed exam.

#### STUDENT CONDUCT

A positive environment for learning will be maintained by students being courteous to each other and to the instructor. Eating, drinking, sleeping, and distracting conversations during lecture will not be allowed. Repeated tardiness will result in warning; if continued this will result in further action depending on upon seriousness of problem. Regular attendance is also expected as per college policy.

Cheating on tests is not tolerated as per Angelina College policy and may result in expulsion from the course. Plagiarism is not tolerated and will result in a zero for any assignment in which it is detected.

#### CELL PHONES

**Cell phones must be turned off or on the silent mode.** Students may not have access to cell phones during quizzes and/or tests.

### VI. COURSE OUTLINE:

See attached COURSE SCHEDULE

### VII. EVALUATION AND GRADING:

1. Your grade will be assessed by:
  - a. Three tests valued at 100 points each for a total of 300 points.
  - b. Homework on MyLabsPlus valued at 100 points.  
**Each homework assignment has a due date which is the day of the next class meeting. There will be a daily 10% penalty for work completed after the due date (up to 5 additional days). The homework grade will be a zero if not done within 5 days of the due date.**
  - c. Class work, daily quizzes, notebook checks, and/or other homework valued at 100 points total.
  - d. Weekly lab valued at 50 points total.
  - e. A comprehensive final examination valued at 150 points.  
NOTE: TI-89, TI-92, or any calculator with CAS-software may not be used on the final.
2. No makeup tests will be allowed. The final exam will replace any one missed test or the lowest test grade during the semester.

***The instructor may modify the provisions of the syllabus to meet individual class needs by informing the class in advance as to the changes being made.***

### MATH 0330 COURSE SCHEDULE – MW

Fall 2016

Lesson	Date	Sections	Pages	Description	Book Problems (in addition to MLP)
1	08/24			Introduction, Syllabus, Review	
2	08/29	6.1	426-435	The Greatest Common Factor & Factoring by Grouping	
3	08/31	6.2 6.3	435-443 444-451	Factoring Trinomials Whose Leading Coefficient is 1 Factoring Trinomials Whose Leading Coefficient is Not 1	
4	09/07	6.4 6.5	452-461 462-470	Factoring Special Forms A General Factoring Strategy	
5	09/12	6.6	470-482	Solving Quadratic Equations by Factoring	
6	09/14	8.1 8.2	586-596 596-609	Introduction to Functions Graphs of Functions	
7	09/19	9.1 9.3	642-653 663-674	Reviewing Linear Inequalities (Objective 1 only) Equations and Inequalities Involving Absolute Value (Objectives 1-4)	
8	09/21	Review		Review for Exam 1	
<b>9</b>	<b>09/26</b>	<b>Exam #1</b>		<b>Exam #1 (Chapters 6,8, and 9)</b>	
10	09/28	10.1	691-704	Radical Expressions and Functions (Objectives 1,5, and 7)	
11	10/03	10.2	705-715	Rational Exponents	
12	10/05	10.3	715-723	Multiplying and Simplifying Radical Expressions (Objectives 1, 2(No example 3), and 3)	
13	10/10	10.4	723-731	Adding, Subtracting, & Dividing Radical Expressions	
14	10/12	10.5	732-742	Multiplying and Rationalizing Denominators (Objectives 1 and 2 only, no rationalizing denominators)	
15	10/17	10.6	742-752	Radical Equations	
16	10/19	Review		Review	
<b>17</b>	<b>10/24</b>	<b>Exam #2</b>		<b>Exam #2 (Sections 10.1 – 10.6)</b>	
18	10/26	10.7	752-762	Complex Numbers (Objective 1 only)	
19	10/31	11.1	771-788	The Square Root Property (Objectives 1 and 4 only)	
20	11/02	11.2	788-803	The Quadratic Formula	
21	11/07	11.3	803-822	Quadratic Functions and Their Graphs Part 1(Objectives 1-3)	
22	11/09	11.3	803-822	Quadratic Functions and Their Graphs Part 2(Objectives 4-5)	
23	11/14	Review		Review	
<b>24</b>	11/16	<b>Exam #3</b>		<b>Exam #3 (Sections 10.7, 11.1 – 11.3)</b>	
25	11/21	7.1	489-500	Rational Expressions & Their Simplification	
26	11/28	7.2	500-506	Multiplying and Dividing Rational Expressions	
27	11/30	7.3 7.4	507-515 515-526	Adding & Subtracting with the Same Denominator Adding & Subtracting with Different Denominators	
28	12/05	7.6	535-547	Solving Rational Equations	
29	12/07	Review		Review for Final Exam	
<b>30</b>		<b>Final</b>		<b>Comprehensive Final Exam</b>	