

DISTRICT SYLLABUS MAC1105 College Algebra

Credit Hours:	3
Contact Hours:	3
Laboratory Fee:	None.
Prerequisites:	MAT1033 Intermediate Algebra
Corequisites:	There are no corequisites for this course.
Catalog Description:	This course covers the following topics: functions and functional notation; domains and ranges of functions; graphs of functions and relations; operations on functions; inverse functions; linear, quadratic, and rational functions; absolute value and radical functions; exponential and logarithmic properties, functions, and equations; systems of equations and inequalities, applications (such as curve fitting, modeling, optimization, exponential and logarithmic growth and decay.) Meets A.A. general education Category III.
Required Materials:	Books: College Algebra Graphs & Models, 4th ed. (with MyMathLab online resources), Bittinger, Beecher, Ellenbogen, Penna. Pearson Education, 2009. ISBN: 0-536-13488-X Supplies: TI-83+ or TI-84 Graphing Calculator. MyMathLab online homework, tutorial & assessment software.
Special Requirements:	None
Specific Performance Objectives:	At the end of the course the student will be able to: <ol style="list-style-type: none">1. Solve linear, quadratic, rational, absolute value, and radical equations and inequalities, algebraically and graphically.2. Use exponential and logarithmic properties to analyze functions and solve equations.3. Analyze relations and functions.4. Sketch and interpret graphs of linear, quadratic, rational, absolute value, radical, exponential, and logarithmic functions.5. Solve systems of equations and inequalities.6. Set up and solve applications & problems related to the above concepts.
Methods of Evaluation:	Evaluation of student progress towards achieving the stated learning outcomes and performance objectives is the responsibility of the instructor, within the policies of the college and the department. Detailed explanation is included in the expanded syllabus developed by the instructor for each section being taught.
Flexibility:	It is the intention of the instructor to accomplish the objectives specified in the course syllabus. However, circumstances may arise which prohibit the fulfilling of this endeavor. Therefore, this syllabus is subject to change. When possible, students will be notified of any change in advance of its occurrence.
Note:	For students with a disability that falls under the American Disability Act, it is the responsibility of the student to notify the instructor and Disabled Student Services to discuss any special needs or equipment necessary to accomplish the requirements for this course.

**Major Learning
Outcomes:**

MATHEMATICS COURSE Global Learning Outcomes and Objectives:

I. Critical Thinking: Students will evaluate the validity of their own and others' ideas through questioning, analyzing, and synthesizing results into the creative process.

A. Evaluate information, text, numerical and/or graphical data for validity and reach conclusions that are supportable.

B. Apply understanding and knowledge of mathematical concepts to devise and analyze solutions to problems.

III. Scientific and Mathematical Literacy: Students will apply an understanding of mathematical, natural, and behavioral scientific principles and methods to solve abstract and practical problems.

A. Engage in substantial mathematical problem solving.

B. Apply knowledge and understanding of mathematical concepts through real world information.

C. Acquire the skills necessary to communicate mathematical ideas and procedures using appropriate mathematical vocabulary and notation.

IV. Information Management: Students will use effective strategies to collect, verify, document and manage information from a variety of sources.

A. Obtain information from the Web using traditional locator tools and assess the information.

B. Use appropriate technology to address a variety of mathematical tasks and problems. Upon completion of the course, the student will be able to set up, solve, and interpret college level algebraic problems.