

SYLLABUS: MATH143- Fall 2008

DATE:Fall 2008

COURSE NUMBER AND TITLE: MATH143 -College Algebra

CREDIT HOURS: three

INSTRUCTOR: Dr. Micheal H. Vernon

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TEXTBOOK: Precalculus; Sixth Edition; David Cohen

PURPOSE:

This course is designed to prepare a student to enter the standard calculus sequence. It also satisfies the math requirement of LCSC's general education core. In addition to techniques and concepts specific to precalculus and college algebra, this course will help develop analytic abilities of students. Time will be spent working applications that range from the traditional short "story problem" to more involved, realistic exercises requiring hours of work. Reading and writing assignments of various lengths will occur throughout the course. Technology is fully integrated; students will be able to use the appropriate technology for their work, be it graphing calculators or computer algebra. Students are encouraged to turn in assignments via email and to make inquiries through email.

If course adaptations or accommodations are needed because of a disability, if you need to make me aware of emergency medical information, or if you will need special arrangements in case of building evacuation, please contact me as soon as possible or by the 10th day of the semester.

COURSE OBJECTIVES:

Upon completion of this course, each student will be able to:

1. understand and apply basic concepts of functions and their graphs, including shifts, reflections and stretching of graphs, combinations of functions and inverse functions.
2. find zeros, intercepts, asymptotes and other basic features of polynomial and rational functions.
3. classify polynomial and rational functions by the shape of their graphs.
4. perform algebra of exponential and logarithmic functions.
5. graph exponential and logarithmic functions.
6. solve exponential and logarithmic equations.

7. solve systems of equations including simple non-linear, linear and inequality systems.
8. setup and solve simple linear programming problems and solve geometrically.
9. use matrices to solve linear systems of equations.

METHODS OF INSTRUCTION:

The instructor will utilize an average of 150 minutes of interactive lecture/discussion per week. Homework will be assigned from each section covered. Students are encouraged to form study groups to work on the homework and to prepare for quizzes and the midterm and final exam.

Grading Scale:

- A: 90% - 100%
- B: 80% - 89%
- C: 70% - 79%
- D: 50% - 69%

All assignments and practice exams and quizzes will available in [BlackBoard](#). Be sure to visit this site frequently during the semester.

METHODS OF EVALUATION:

The student will be evaluated based upon the results of 4 Tests (100 points each), homework (400 points total), attendance (44) and a final exam worth 200 points. Grades will be assigned based upon a percentage of points earned out of the total possible (1044). Quizzes may be done on-line.

COURSE OUTLINE:

Chapter:	Title of Chapter
1	Fundamentals
2	Equations and Inequalities
3	Functions
4	Polynomial and Rational Functions. Applications to Optimization.
5	Exponential and Logarithmic Functions
10	Systems of Equations
12	Roots of Polynomial Equations
Final Exam	12/17/08