Course syllabus –MA111 College Algebra For Calculus Preparation

Class Time: 2:00 –2:50 PM, MTWR, JXJ3100

Instructor: Richard Balding
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Office hours: M,W,R 12-1:50, M,W 4-4:50

Course objective:

This course is designed to prepare highly motivated, but mathematically unprepared, students for the study of calculus in two ways: 1) expand and deepen the algebra knowledge and techniques essential for calculus, and 2) prepare the student for the increased pace necessary for calculus.

However, mastering formulas and procedures for solving routine problems (the so-called "plug and chug" mathematics) is not sufficient. You will be expected to learn to solve non-routine, multi-step problems--problems that are not just variations of worked examples--that involve the use of formulas and methods of algebra and logical extensions of these.

Upon successful completion of the course, students will be able to:

* Solve linear, quadratic (and quadratic-like) and absolute value equations and inequalities.
* Work with linear functions, including graphing, Cartesian operations, equations of lines and proportions.
* Manipulate and apply functions, including piecewise, composite, inverse and quadratic functions.
* Manipulate and solve exponential and logarithmic functions.
* Solve systems of equations
* Solve applications of all types of equations listed above.

Evaluation of these learning outcomes will be done through quizzes and tests.
This course satisfies the Foundations of Natural Science/Mathematics requirement. 

Students who complete this course should be able to demonstrate a basic understanding of mathematical logic; use mathematics to solve scientific or mathematical problems in college classes; express relationships in the symbolic language of mathematics; and appreciate the role of mathematics in analyzing natural phenomena.

Requirements:

1) Homework will be assigned at the end of most classes. Most of the time (if at all) the homework will not be collected, but is essential to the learning of the material. The best way to learn math is to do math.

2) In a college class at this level, the average student should expect to spend 2 hours of study time (doing homework, reading, taking and revising notes and studying) for every hour of class time. Since this class is a 4 credit class, you should expect to spend 8 hours per week on study activities outside of class.

3) Your final grade will be determined from a combination of the points achieved from quizzes, tests and the final exam – a number of curve points (to be determined) will be multiplied by your attendance % (if over 80%, otherwise by 0) and added at the end. There will be 6 to 8 tests (and/or quizzes) and the final. The final will be worth about 1 ½ tests.

Required Materials:


2) Graphing calculator or a scientific calculator.

Material to be covered:

We will cover most of chapters 1 – 3, 5, 6, 8

Help: Help is available from me (during office hours or other arranged times), from the Math Lab in WS 3810 (M-R, 9-4, F, 9-5) and/or from the All Campus Tutoring. Also, meeting with other students from your class can be very helpful.
Grading scale: (Approximate)

90-100%  A’s
80-89.9%  B’s
70-79.9%  C’s
60-69.9%  D’s
below 60%  F

DISABILITY SERVICES

If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Dean of Students Office at 2001 C. B. Hedgcock Building (227-1700). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.