September 14, 2010

Syllabus for Math 135 – Precalculus I (2)

Course Description: Algebra review, functions with special attention to polynomial, rational, exponential and logarithmic functions, composed and inverse functions, techniques of graphing. Credit allowed for just one of Math 135 or Math 140. Pre: 2 years high school algebra, 1 year plane geometry. Grade Options: CR/NC or Audit.

Course Format: The lectures for this class are online, and students are required to watch them on their own time according to a schedule that will be announced in class. The class meets twice a week for two hours. One hour will be supervised small group work, one hour will be online practice.

Topics: (The numbering of the lectures refers to Professor Myers' Math 140 website.)
Week 1: Get set up; linear equations and inequalities. (Lecture 1 & 2)
Week 2: Equations involving rational expressions
Week 3: Integer and rational exponents
Week 4: Manipulating polynomial expressions
Week 5: Relations and functions (Lecture 3 & 4)
Week 6: Linear functions (Lecture 2)
Week 7: Composition of functions, inverse functions (Lecture 6 & 7)
Week 8: Review and Midterm
Week 9: Quadratic equations and functions (Lecture 8)
Week 10: Rational expressions and division of polynomials (Lecture 3)
Week 11: Graphing techniques. (Lecture 5)
Week 12: Graphing polynomial and rational functions (Lecture 9 & 10)
Week 13: Properties of logarithms (Lecture 12 & 13)
Week 14: Logarithmic and exponential equations (Lecture 12 & 13)
Week 15: Graphing logarithmic and exponential functions (Lecture 11 & 12)
Week 16: Review for final

Required Material: Students will have to purchase access to ALEKS for the purpose of online practice, in class and at home. Details will be announced in class.
Suggested Material: Any College Algebra text (older editions are fine) or the current text used for Precalculus (Math 140), and Professor Myers' Math 140 course package.

Suggested Reading: Anything on Professor Dale Myers' Math 140 website (http://www.math.hawaii.edu/140).
Attendance: Attendance is mandatory. Three missed classes will mean a grade of NC. Being late or leaving early will count as a partially missed class, and five partial absences will count as one full absence.
Grading: There will be two exams, a midterm and a final. A sufficient score on each exam is required for a grade of "CR". Students will be allowed to take each exam twice.
Course Objectives and Student Learning Outcomes: Upon successful completion of Math 135, the student will be able to work with, apply, and answer questions pertaining to the material in the list of topics at the level of a standard "College Algebra" text.
Program Objectives: The successful student will acquire the skills prerequisite to Math 203, Calculus for Business and Social Sciences, and Math 140, Precalculus.