Math Q114, Quantitative Reasoning, Spring 2010
Sections 4, MWF 12:00-12:50 PM

Course Description: Math Q114 fulfills the quantitative reasoning requirement that is part of your general education requirements. In this course you'll learn how to use the algebraic and technological tools employed in the social, physical and life sciences to analyze quantitative information. We'll study some basic statistics, and then delve into linear, exponential and quadratic models. The course will involve defining real world problems by means of numerical, symbolic, and visual representations of real world phenomena, determining how to solve them, deducing consequences, formulating alternatives, and predicting outcomes. The stress will be on reasoning, rather than on mathematical manipulation and computation. Throughout you'll be actively involved in discussing, reading, writing , and in general doing. The course serves as preparation for: Math 125 (Statistics) and for similar statistics/methods courses outside the Mathematics Department, as well as for certain General Education science and other quantitatively based courses.

Syllabus:: see attached **Prerequisite**: Math Placement Test.

Text: *Explorations in College Algebra* (third edition), published by John Wiley & Sons.

Technology: No prior knowledge of computers is required. Each class meeting will take place in Mac Lab C. We will be using Internet Explorer to browse the world wide web, e-mail, a function graphing program and some custom software. Prior knowledge of a word processing program is assumed.

Class meetings: 3 times a week at 12:00 PM, on Mondays, Wednesdays and Fridays, in H-UL-Mac Lab C. Regular attendance is required.

Professors: Mark Pawlak .
Office hour to be announced.

Messages for Professor Pawlak may be delivered to his mailbox in the Academic Support Programs office, Campus Center first floor; by voicemail at (617) 287-6557; or by e-mail at mark.pawlak@umb.edu

Tutoring/Extra Help: We will have an in-class tutor/assistant Ashley Murphy. Other tutors are available to help you in the Math Resource Center, hours to be announced

Grading: Your final grade will come from 4 sources:
Portfolio--5 points out of 100 on final exam
15% --Assigned problems from the text, weekly quizzes.
20%-- Internet assignments, group and individual projects, and class presentation.
15% --Exam 1: Computer Gateway Exam and take home exam
20% --Exam 2: Mid-term hour exam
30% --Final Exam: Cumulative Exam on all chapters covered

Note that homework will be collected and graded, and will have a substantial impact on your final grade. See next page for homework policy.

Homework assignment policy:

Problems from the text will be assigned one week at a time, every week, and will be due on the following Monday. Extensions will be granted if you arrange in advance to meet with the instructor or a course tutor for extra help prior to due date. Assigned problems will be graded, and will have a substantial impact on your final grade.

Each set of problems will be worth 10 points:

- 2 points for turning the set in by the due date (or the following class is you have arranged with me or a tutor to get help).
- 4 points for making a serious attempt to solve all the problems and answer all the questions.
- 4 points for completeness and accuracy of your answers and solutions.

In addition to assigned problem each section of every chapter has Algebra Aerobics problems. These are meant as a review of essential mathematics skills that will be used in the chapter. You should try these problems and check the answers in the back of the text. If you don't understand these problems or get some of them wrong, ask me for help with them the next class. I will not collect these, but I will base the weekly quizzes on the aerobics problems.

Collaborative work versus academic dishonesty:

There are some aspects of this class which may lead you to be confused about how to conduct yourself, which we will try to address here;

This class encourages cooperation among students and you will frequently be asked to work in pairs in class and to pursue team projects with 2 or more other students. Sometimes the collaborative work will be completed during class, at other times you will need to meet with the other student(s) afterward to finish what you began in the classroom.. What we expect you to do in these instances is to explore mathematical problems together, discuss your observations and conclusion, but we expect your final product, usually in written form, to be something that represents your individual work. If your partner does the writing for you it is dishonest to submit it as your work, similarly if you do the writing for your partner, you are equally culpable of dishonesty. It is also dishonest to turn in the same written statement for a whole group project.

In addition to written work, there will be quizzes, in-class exams and a take home exam. The work each of these must be your own.

You will receive a failing grade on any work submitted that is not your own.
The UMass Boston Student Code of Conduct (which you can find in your student handbook or on the university's web site at
http://www.umb.edu/student_services/student_rights/code_conduct.html)
Defines academic dishonesty (cheating or plagiarizing) and the serious consequences that may ensue..