GB500 Fall 2012: Fundamentals of Math for Business

6:30-9:30 Wednesdays September 5 - October 17,
GB 500.51 9:00 am - 12 noon Saturday, September 15
Room 360 Columbia Campus

Instructor: Dr. Lisa Oberbroeckling ("o-burr-brek-ling"), a.k.a. Dr. O
Office: 312 Knott Hall
Phone: 410-617-2516
Email: loberbro@loyola.edu OR loberbroeckling@loyola.edu
Class webpage: found on Moodle (moodle.loyola.edu)
WeBWorK site: http://webwork.cs.loyola.edu/webwork2/GB500f12

Office Hours: before class from 6-6:30 (in the classroom) and also by appointment/email
(loberbroeckling@loyola.edu or loberbro@loyola.edu).

I reserve the right to make changes to the syllabus at any time during the term by
announcing them in class and on the webpage. You are responsible for knowing not only
what was discussed/announced in class but also posted on Moodle so check Moodle
often!

Catalog Course Description:
Reviews and develops the mathematical tools needed for MBA level course work.
Students learn how to solve quantitative problems from a variety of business disciplines
and how to relate the basic mathematical tools to business decision making. Topics
include algebra, functions, equations, lines and graphs, and financial applications. This
course can be waived with a score of 80% or better on the GB 500 Waiver Exam.

Required Text
Finite Mathematics with Applications, 10th edition by Lial, Hungerford, and Holcomb
(2011).

Calculators
A graphing calculator is not required but if you own one you may find it useful. There are
some graphing calculator sites that are listed on the handouts/links page.

Grading
Based on:  Basic Scale:
WeBWorK    25%  A  90-100%
4 Exams  25%  B  80-89%
25%  each  C  0-79%
The highest of the exams
and WeBWorK will be
used for your final grade.
I give +/- grades, the cutoffs being
at the 7's and 3's, respectively.
Thus 80-82.9 = B-, 83-86.9 = B,
87-89.9 = B+. 
Homework and WeBWorK
This course will emphasize reviewing mathematics and some business applications of mathematics. It is in your best interest to do as many odd problems (so you can check your work) from the text. You will be asked to do homework problems similar to ones found in the text on the computer through WeBWorK. Even though I will not be collecting the homework assigned from the book, it is important for you to be able to do all of the problems and understand the concepts behind them. **The 2 lowest WeBWorK sets will be dropped in calculating your final grade.** Late WeBWorK assignments are not accepted, so plan your time wisely.

Exams
There will be 4 in-class exams during the term. They are tentatively scheduled on the calendar to be classes 2, 4, 6, and 8. Other information about the exams will be announced in class as each exam approaches.

Extra Credit
Do not count on extra credit in this course to boost your grade. I make it a policy to not give extra credit on an individual basis so do not ask for it, especially at the end of the term.

Attendance Policy
I do not take attendance very day, but I do pay attention to who shows up. If you must miss class, I don't need to hear why because it is your responsibility to find out what you missed. It is best to get notes from a classmate; my lecture notes will not be useful to you. If you cannot make it to an exam because of illness or family emergency, let me know in advance by phone or e-mail. Make-ups will be given only under these circumstances. Don't abuse this.

Classroom Etiquette
When you come to class, I expect you to not only be in attendance physically but also mentally. That means no cell phones, no leaving class during lecture, no extraneous chatter, etc. If you know you must leave class, sit by the door to minimize the disruption.

Academic Integrity
All students of the University are expected to understand the meaning of academic integrity. Ignorance of the Code is not a valid reason for committing an act of academic dishonesty. The following constitute violations of the Code and are defined in the Community Standards Handbook: cheating, stealing, lying, forgery, plagiarism and the failure to report a violation. If you encounter any violation of the Honor Code, it is your duty to notify me immediately.

As it pertains to this course
I encourage you to work with others on homework (by collaborating, not copying!). I will ask you to sign a pledge on exams. Any questions or concerns should be directed immediately to me.

Disabilities
If you have a disability that is documented with the Disability Support Services Office (DSS) and wish to discuss academic accommodations, please contact me as soon as possible. If you have a learning disability that has not been documented, you may contact the Disability Support Services Office (410-617-2602) for assistance.
Course Objectives
The successful student will be able to:
- Appreciate the role of mathematics in business decision making;
- Approach quantitative problems confidently and choose the proper approach on the basis of what information is available;
- Solve quantitative problems from a variety of business disciplines.

Course Outline
We will cover as much of the following material as possible. Since it is important for you to be comfortable with the mathematics similar to what you may see in future courses, we may spend more time on some topics and less time on others as needed.

I. Algebra Refresher
   A. Concepts of Equations and Methods for Solving Equations
   B. Applications of Equations and Linear Inequalities
   C. Functions & Graphs
      1. Formula for straight line
      2. Slope and intercept interpretations in business
   D. Systems of Equations
      1. Break-even Analysis
      2. Constrained Optimization
   E. Parabolas
      1. Maximization of Revenue
      2. Minimization of Cost
   F. Logarithmic and Exponential Function Applications in Business

II. Economics applications (supply and demand, fixed, variable, and total cost)
III. Concept of dependent and independent variables
IV. Lines
   1. Formula for straight line
   2. Slope and intercept interpretations in business
V. Mathematics of Finance
   A. Present Value
   B. Compound Interest
   C. Annuities
   D. Amortization of Loans

GENERAL SUGGESTIONS:
- This course will test your study and time management skills. The homework/WeBWorK exercises WILL be time consuming until you get the hang of them, so DO NOT put off the homework until the night before they are due. I will not give extensions on these due dates.
- Don't use the fact that I don't collect the book homework to not do it. Also, don't use the fact that I drop 2 WeBWorK sets to not do them. You might need those drops later on in case you get sick or do not do well. You will also need to know that material for the exams and later material!
- Participate in class, ASK QUESTIONS, stop by my office or email me. If you get behind or stuck, see me or work with other students RIGHT AWAY.
- Form a study group with others in the class. You may work together on homework but everyone must join in and work.
- READ THE BOOK. Lectures will be much more understandable. It will be important to READ the book, not just look at the highlighted boxes because I will not be able to cover all of the details or show nearly enough examples in class.