Algebra with Applications to Business and Economics: Math 111 - Winter 2008

Lecturer: Dr. Andrew D. Loveless  
Email: aloveles@math.washington.edu  
Office: Padelford C-339  
Office Hours: Monday (in Padelford C-339) and Wednesday (in MSC) 12:45-2:00 pm  
Web page: www.math.washington.edu/~aloveles


Other Required Materials:  
• a clear plastic ruler  
• a scientific calculator  
• packet of lecture handouts  
  (download from the course website)

Course Objectives: You will study the use of graphs and algebraic functions as they apply to the fields of business and economics. This course will prepare you for a course in the application of calculus to business and economics.

Grading: The weight for each part of the course is given below. An example is also given to show how you can determine your own grade. This made-up student would get a 86.4 out of 100 for the course which is a 3.1 on the grade scale (the grade scale can be found on my website).

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight</th>
<th>Your Percentage</th>
<th>Your Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Prep Participation</td>
<td>2</td>
<td>100%</td>
<td>= 2</td>
</tr>
<tr>
<td>Homework (Due Fridays at Lecture)</td>
<td>10</td>
<td>85%</td>
<td>= 8.5</td>
</tr>
<tr>
<td>Activities (Due Tuesday at Quiz Section)</td>
<td>10</td>
<td>97%</td>
<td>= 9.7</td>
</tr>
<tr>
<td>Midterm 1 (Thursday, January 31)</td>
<td>23</td>
<td>76%</td>
<td>= 17.48</td>
</tr>
<tr>
<td>Midterm 2 (Thursday, February 21)</td>
<td>23</td>
<td>88%</td>
<td>= 20.24</td>
</tr>
<tr>
<td>Final Exam (SATURDAY, March 15)</td>
<td>32</td>
<td>89%</td>
<td>= 28.48</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td></td>
<td>86.4</td>
</tr>
</tbody>
</table>

Activities: You will participate in group activities during quiz section each Tuesday. You will work on these activities in groups; however, each individual will hand in his/her own solutions. These activities are designed to be finished and turned in at the end of the quiz section.

Homework: Homework will be assigned weekly in lecture and will be collected during Friday’s lecture. Since the answers to most of the exercises are available to you, it is important that you write out complete solutions to all assigned problems. No credit will be given for simply writing the correct answer. No credit will be given to sloppy answers.

Participation: During Thursday’s quiz section, you will attempt problems from previous exams in a test-like situation and then discuss these problems as a class. You will receive points for participating in these discussions. After the discussion, your TA will answer questions about the week’s homework assignment.

Exams: You will be allowed to use your calculator, your ruler, and one 8.5 x 11 sheet of handwritten notes for the exams. Other electronic devices will not be allowed (e.g. no cell phones, no laptops, no Palm Pilots). You may not share a calculator or a note sheet with another student on an exam.

Make-Ups: *Late activities and homework assignments will not be accepted for any reason*. You will be allowed to miss one activity AND one homework assignment without penalty to your grade. In case of observance of religious holidays or participation in university sponsored activities, arrangements must be made at least 2 days in advance for activities and 1 week in advance for exams. You will be required to provide documentation for your absence. Make-up exams will not be given. If you miss an exam due to *unavoidable, compelling, and well-documented* circumstances, your final exam will be weighted more heavily.
**Respect Issues:** Disrespect will not be tolerated. As with all your life, you should treat others better than you yourself would like to be treated. Come to class on time (better never than late) and do not leave class early. If you have special circumstances where you need to arrive late or leave early, please contact me ahead of time and sit close to the door so that you do not distract your classmates when you enter or exit. Do not use electronic devices during class. **If you want to listen to your iPod, text message your friends, or play around on your computer, then don’t come to class. No computers are allowed in the classroom.** This is completely disrespectful to me and your classmates, so please put away and turn off your electronic devices.

Be respectful when you communicate with me or your TA. If you have a problem, then you need to calmly and politely bring it to the attention of me or your TA. If you are argumentative or if you send a disrespectful email, then we will not consider your complaint.

**BE RESPECTFUL TO YOUR TA!** Your TA is a student as well. Many of them are taking hard classes, preparing for doctoral preliminary exams, and/or working on writing 100 page dissertations. In addition, they are paid a relatively meager wage. Before you criticize your TA, you should ask yourself what you would do in their position. The point is: Help them out by bringing good questions to quiz section and make sure to thank them for the time they are giving you.

**Resources:**

- A link to the class website can be found at: [http://www.math.washington.edu/~aloveles/](http://www.math.washington.edu/~aloveles/)
  You will find lecture handouts, homework assignments, and a schedule for the term, and various bits of other useful information there, including review sheets, past exams and quizzes, TA information, etc.

- The Math Study Center (Communications B-006) is open to students in Math 112. The Center provides a comfortable place and a supportive atmosphere for students to come together and study, in groups or individually. The center is staffed by TAs and instructors. See [http://www.math.washington.edu/~taggart/m112/MSCsched.html](http://www.math.washington.edu/~taggart/m112/MSCsched.html) for more information.

- The Center for Learning and Undergraduate Enrichment (CLUE) holds drop-in tutoring sessions every weekday evening in Mary Gates Hall Commons. See [http://depts.washington.edu/clue/](http://depts.washington.edu/clue/) for more details.

- The University of Washington is committed to providing access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation contact the Disability Services Office at least ten days in advance at: 206-543-6450/V, 206-543-6452/TTY, 206-685-7264(FAX), or dso@u.washington.edu.

- The Student Counseling Center provides academic skills workshop on a variety of topics including stress management test anxiety and time management to help you succeed at the University of Washington. If any of these is an issue for you, check out the schedule of workshops at [http://depts.washington.edu/scc/studyskills.html](http://depts.washington.edu/scc/studyskills.html).
Class Philosophy: There are three vital rules for success in my classroom.

1. THE HOMEWORK IS THE KEY: In mathematics, breakthroughs in learning rarely occur while reading the text or attending lecture. Mathematics is truly learned when you completely solve a problem AND understand the underlying concepts and tools so as to be able to apply them to related problems. The lecture, tutorial sessions, and office hours are valuable tools in guiding you towards learning and discovery, but ultimately the concepts and solutions must be absorbed, understood, and applied by you alone. Treat each problem as an exam question and ask yourself, “Can I answer this question without any help, and do I understand the underlying principles that this problem conveys?” If your answer is no to either of these question, then you need more studying and practice.

2. ASK FOR HELP: Most students will hit a wall at some point during the course. Some can’t handle the large workload, while others find difficulty with specific concepts in the course. When these times arise remember to ask for help. Come to your T.A., come to me, ask your classmates for help, visit the math study center and/or visit the student counseling center. These are just a few of your options. Please, please, please find help earlier rather than later. You are all smart enough to do well in this course, the question is whether or not you are determined enough.

3. PROPERLY STUDY FOR THE TESTS: The following are NOT good ways to study for the exams: Flipping through your homework, glancing through solutions to old exams and having tutors do problems for you. The following are good ways to study for the exams: Attempt old exams on your own without looking at solutions, redoing problems from the homework without looking at your answers, and having tutors check your work and point out ways to improve. Ultimately, you need to try to put yourself in an exam situation. You need to study at least 10 old exams before each midterm and final in this course. Here is a study schedule that seems to work for a lot of my students:

   a) At least one week before each exam, spend one night going through 5+ old exams. Attempt them without help from the book and start to make a notesheet of items that help you get the problems started.

   b) Come to the MSC, quiz section, and lecture with questions on the material that you struggled with in the old exams.

   c) Two days before the exam, spend one night going through 5+ old exams. Attempt them without help from the book and finish up your notesheet. You should see marked improvement from your first studying session.

   d) Get any last minute questions answer the day before the test.

Using this technique only requires two days of intense studying (more would be preferable, but I understand that many of you are under time constraints). The main reason that this works so well is that it gives you brain time to process and sort out the different concepts that you need to know for the exam. The key is first step where you study at least one week in advance. Try to study as if the exam was the next day and your life depended on it.