

MA 162 - Exam #2 Study Guide

This document is intended to help guide your studying for the Exam on 10/20/2014. It will mostly contain references to other places on the course webpage or the textbook so if you have been keeping up with course then you already have a good start to your studying!

I will reiterate that this is the first time I have written exams for this course. This means there are not any previous exams that **I have written** to help you study. You may be able to find previous exams that someone else has written, but I can not guarantee that they will cover exactly the same topics or cover topics in the same order we are. Use any exams you find this way with caution.

This list may not be all inclusive and everything on here will not necessarily show up on the exam, but this is a good starting point for your studying. You should not expect the exam to be all problems you've already seen with only the numbers changed. Here are some things you can do to prepare for the exam:

Study the Lecture Notes: The completed versions of class notes are posted a few days after the lecture in which we cover the topic. Read back through these to reinforce anything that you may have struggled with initially.

Review the Homework and Recitation Materials: All the homework problems are intended to prepare you for the exams. The recitation worksheets and quizzes are also intended to prepare you for the exam. Some solutions to these will be posted by Friday, October 17th.

Do Practice Problems from the Book: These problems give a good range of types of problems that you could be asked. If you do not feel comfortable with a particular type of problem, then do more of them even if they aren't on the list. There will almost always be more problems of each type in the book that are not on the list of practice problems. Practice problems are listed on the course webpage under the appropriate section notes.

Exam Format: The exam consists of seven questions (most with multiple parts). There is a mix of short answer questions which require little work and longer questions which will require a large amount of work and/or explanation. The exam is two hours long.

Exam Content: The sections that are covered on the exam are 2.6, 3.1 – 3.3, 4.1, and the first few pages of 4.2. You can expect the sections we spent longer on in class will be weighted more heavily on the exam. For example, sections 3.3 and 4.1 will be worth the most points on the exam (about 50% of the exam combined) because we spent the most time on those in class.

You can also expect the following (this is not everything that will be on the test):

- (1) A couple shorter questions on the Method of Corners. Things like graphing inequalities or shading the correct feasible region could show up here.
- (2) A longer Method of Corners problem. In this case you would be required to do the entire method of corners to optimize an objective function.
- (3) A couple shorter questions on the Simplex Algorithm. Things like finding the next pivot value, interpreting a final Simplex table, or setting up a Simplex table could appear here.
- (4) A longer Simplex problem. In this problem you will be expected to carry out the necessary row operations to complete the Simplex Algorithm.