

**Syllabus for Math 234 Lecture 2, Spring 2009 - A. Assadi (Instructor); George Brown, Alec Johnson, Fang Yuan (TA)**  
**Instructor Remarks on Chapter 14, 14.1 – 14.5**

Lectures Tuesday Feb 3, and Thursday Feb 5, 2009 will cover 14.1 – 14.5.

**Reading Before Coming to the Lectures: You must have read and know the materials in Section 14.1, pp 965-973**

**NOTES.** I have discussed some concepts in visualization and definition of graphs of functions of two variables in class. The surface of a cylinder and a cone discussed earlier are examples of such graphs. Finding curves lying on such surfaces (helix and the result of bending straight lines on blank sheets of paper, where you make a cylinder or a cone) are other examples that should have prepared you for 14.1. Pay special attention to the figures and the formulas that are used in their graphs. Read the examples and make sure you remember all the facts that Math 221 had covered.

**Sections 14.2, 14.3** will be covered on Tuesday.

**NOTES.** Please review CHAPTER TWO pp. 73 – 143 from Calculus 221.

**EVERYONE** is expected to know CHAPTER TWO and be able to do the Review Problems at the end of that chapter. YES, everyone, including **YOU!**

If you know limit and continuity in one variable, then you should move on to read Section 14.2, and browse through 14.3 for the Tuesday lecture. Browse through 14.4 and 14.5 before coming to the lecture before the Thursday lecture.

**Sections 14.4 and part of 14.5** will be covered on Thursday.

**NOTES.** Please review change of variables, polar coordinates and differentiation rules for Implicit Functions, Inverse Functions and the Chain Rule from Calculus 221.

**EVERYONE** is expected to know the formulas, be able to do medium-level exercises right away in class on the Prerequisite materials from earlier courses.

Please look up the key words above from the Index of the text-book, go directly to the pages, and check out from the first few examples if you are on top of the required calculations.

If some of you have difficulty in the background, make sure you get help by going to MATH LAB on the second floor, or the tutorial service (must be a group of three or more to get help.)

**WEBWORK.** I ask the teaching assistants to make the materials in Web Work related to Chapter 13 available for a longer period, even during the time that we study Chapter 14. You should try doing the WebWork on a graduated part-by-part basis, so you learn along with the lectures. Try the easiest and some medium-numbered (e.g. Odd-numbered exercises in the sections that we cover as mentioned above.)