## **SYLLABUS**

## Math 113, Spring 2014 Calculus and Analytic Geometry I

Time: TR 4:30 - 6:20 PM

Place: Planetary Hall, Room 131

**Instructor:** Walter Morris

Office: Exploratory Hall, Room 4207

Phone: 703-993-1481

Office Hours: R 2-4:15 and by appointment

e-mail: wmorris@gmu.edu

This is the first course of a three-semester Calculus sequence. The main topics covered are limits, differentiation and integration. The text we use is **Calculus: Early Transcendentals**, **1st Edition** by Briggs and Cochran, published by Addison-Wesley. We will cover chapters 2 – 5 and the beginning of chapter 6.

There will be tests on February 11, March 18, and April 15. Each of these tests determines 20% of your grade. The final exam is at 4:30 PM on Thursday, May 8, and makes up 24% of your grade. No calculators may be used for the tests.

I will regularly suggest exercises from the book for you to do. You do not need to turn these exercises in, but I strongly urge you to do them anyway. There is NO WAY that you will learn the material without working practice problems on your own.

Spring Break is the week of March 9-15.

The web page for the class is

## http://math.gmu.edu/~wmorris/113hws14.html

On the web page, I have posted a link to a registration page for MyMathLab. MyMathLab is not required, but some students have found its features useful for studying.

The Math Tutoring Center provides free help in room 311C of the Johnson Center. See http://math.gmu.edu/tutorcenter.htm for hours of operation.

If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services (ODS) at 993-2474. All academic accommodations must be arranged through the ODS.

Each of you has to be signed up for a recitation session. The recitation sessions are on Wednesday afternoons. The recitation instructor will go over homework problems with you. He will also give quizzes during the last 15 minutes of most of the recitation sessions. These quizzes will give you an idea of what you will be expected to do on the tests. The recitation quiz total will determine 10% of your final grade.

There will be two computer assignments for you to hand in. We will teach you everything you will need to know to use the Mathematica program. You do not have to buy a copy of Mathematica. Go to http://mathematica.cos.gmu.edu/ to get Mathematica for your computer. The computer assignments make up 6% of the grade.

Math 113 / 114 / 213 is designated as a Discovery of Scholarship course within the Students as Scholars initiative (for general information on this initiative, go to http://oscar.gmu.edu/.)

This means that in this course you will be engaged in meaningful mathematics experiences that emphasize how mathematicians figured out the key results of calculus. You will also be solving many problems and then reflecting on the problem solving process. Explaining your reasoning is a crucial part of your intellectual growth in mathematics and will be done in class, in recitation, and in optional oral reviews before exams. As well, some short introductions to other topics of research in mathematics will be presented. As a result, you should become much more familiar with the nature of mathematical knowledge, how such knowledge is created, and with the common vocabulary and concepts used to convey such knowledge.

Please feel free to ask me questions in class and in office hours. You may also e-mail me questions or discuss the course over the telephone. We cover a lot of material in this class, so we need to work together to make sure that you master all of it.