



## Calculus from an Advanced Viewpoint

MATH 6102–090

Spring Semester 2009

**Classroom:** CHHS 132  
**Time:** Monday 5:00–7:45 PM  
**Professor:** Dr. David Royster  
**Office:** COED 227  
**Office Hours:** Monday 4:00 – 4:45, or by appt  
**Office Phone:** 704–687–8817  
**email:** droyster@uncc.edu  
**URL:** <http://education.uncc.edu/droyster>

**Class Homepage:** <http://education.uncc.edu/droyster/courses/spring09/MATH6102>

**Text:** My notes and *Real Analysis: A Historical Approach*, Saul Stahl.

**Other:** You will want to have access to a TI Graphing Calculator.

**Number of Class Meetings in the Semester:** 15 classes

**Prerequisites:** MATH 6101 or consent of the Department

**Objective:** “Axiomatic and historical development of the calculus; rigorous development of derivatives and integrals.” Basically, we will study the calculus of Newton and Leibniz and its extensions to higher dimensional spaces.

**Tests:** We will have homework, classwork, web homework and a final. The schedule indicates that the final exam will be Monday, May 4 from 5:00 – 7:45 PM. We are required to meet during this time by University policy.

**Grades:** Your course grade will be determined by the homework, the classwork, the web work, and the final.

**Purpose:** We have seen how to manipulate the symbols to compute derivatives and integrals and such. How did this come about? What do they mean? Can they be generalized in a meaningful manner? This time, we jump!

**Class Policies:** There are several policies to which you must pay heed.

- i) Attendance is extremely important in a class of this level. If you feel that you do not need to attend this class, you are in the wrong classroom—go find a course in which you will be challenged and in which you will learn something new.
- ii) You are allowed one unexcused absence and one excused absence in this course. Any absences beyond this will have an impact on your grade for the course.
- iii) You have been given a day-by-day course syllabus. You NOW KNOW when we have class and when we do not have class. I expect you to be here on all days that we have class.

- iv) I will not accept late homework. If for some reason you miss a class and it is excusable, see me as soon as possible to discuss the situation.
- v) Academic dishonesty will be punished severely. Be cognizant of the *Code of Student Academic Integrity*.
- vi) Be on time to class and remain until dismissed. Do not leave in the middle of class.

**Inclement Weather Policy:** The UNC Charlotte Weather Hotline is (704) 687-2877. In the event that we have *inclement weather*<sup>1</sup> but the University does not close or cancel classes, and I have to cancel the class, a message to that effect will be left on my voicemail (704-687-4543) and I will email every member of the class (if I have access to email).

If you feel that travel during *inclement weather* would be hazardous, then try to inform me as soon as safely possible. You will be given the opportunity to make up any work missed or due on that day. As always, each student is responsible for any work missed and will be expected to get the notes from another student or the web.

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<sup>1</sup> Snow, ice storm, high and dangerous winds – not heavy frost.