MAC 2312H-0202 Fall 2013
Honors Calculus with Analytic Geometry II

Prof. **Zhe Liu**

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Office : MSB 420

Office Hours : MWF 2:00 ∼ 3:00, or by appointment

Lectures : MWF 3:00 ∼ 4:20 MSB 0121 (Credit Hours : 4)

Prerequisite : Grade of "C" (2.0) or better in MAC 2311C, or score of 5 on the Calculus AB Advanced Placement Exam, and permission of Honors

Textbook :

Calculus (Hardbound) by Briggs and Cochran 1/e, 978-1-2-6932702-2, Pearson, or

Calculus (Looseleaf) by Briggs and Cochran, 978-1-2-6932701-5, Pearson

Topics and Expected Learning Outcomes

Differentiation and integration of exponential, logarithmic, inverse trigonometric functions; techniques of integration; further applications of integration; parametric equations, polar coordinates; infinite sequences and series.

Upon completion of the course, the student will be able to :

- Differentiate and integrate exponential, and logarithmic functions; differentiate inverse trigonometric functions and evaluate integrals involving inverse trigonometric functions;
- Recognize and implement appropriate techniques to evaluate definite integrals;
- Evaluate improper integrals;
- Analyze the convergence of infinite sequences and series;
- Determine the radius and interval of convergence of a power series;
- Find the Taylor series, or Maclaurin series for a function;
- Sketch the graph of a plane curve given by a set of parametric equations and find a set of parametric equations to represent a curve in the plane;
- Convert between rectangular coordinates and polar coordinates. Sketch the graph of an equation given in polar form.

Course Website

- http://math.cos.ucf.edu/∼zheliu/teaching-3/mac2312hfall2013/

Most course material (homework assignments, course calendar, announcements, etc.) will be posted on our course website.

- Your (quiz and exam) grades will be posted on Webcourses@UCF.

Evaluation

- Homework

Homework will be assigned weekly. Homework will not be graded. Extra credits (2 pts) will be given for each turned in and completed homework.

- Quizzes (20 pts $\times$ $(8-1) = 140$ pts)

Weekly quizzes will be given in class on Mondays (see course calendar). Each quiz consists of problems selected from the homework of the previous week. The lowest grade will be dropped. There will be NO make-up for missed quizzes.

- Exams (80 pts $\times$ $(3-1) = 160$ pts)

There will be three in-class exams (see course calendar). The lowest grade will be dropped. There will be NO make-up for missed exams. You are required to take all of the three exams. University related absences and medical reasons are considered as valid reasons for missing an exam; in either case documentation is requested.

- Final Exam (100 pts)

The final exam will be cumulative. It is scheduled on Wednesday, Dec. 4, 1:00 $\sim$ 3:50.

- The **TOTAL** possible points of this course will be **400**.

Course grades will be determined according to the following scale :

A	[360, 400]		
B+	[348, 360)	B	[320, 348)
C+	[308, 320)	C	[280, 308)
D+	[268, 280)	D	[240, 268)
F	[0, 240)		

- Calculators are **NOT** allowed on any exams and quizzes.

Getting Help

- Instructor's office hours.
- The Math Lab. http://math.cos.ucf.edu/$\sim$mathlab/

The Math Lab is a friendly place to learn mathematics and its purpose is to provide tutoring for students enrolled in mathematics courses here at UCF.

Academic Integrity

UCF faculty members have a responsibility for your education and the value of a UCF degree, and so seek to prevent unethical behavior and when necessary respond to infringements of academic integrity. Penalties can include a failing grade in an assignment or in the course, suspension or expulsion from the university, and/or a "Z Designation" on a student's official transcript indicating academic dishonesty, where the final grade for this course will be preceded by the letter Z. For more information about the Z Designation, see http://z.ucf.edu. For more information about UCF's Rules of Conduct, see http://www.osc.sded.ucf.edu.

Disability Services at UCF

The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. Students who need accommodations must be registered with Student Disability Services, Ferrell Commons Room 185, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.

Religious Policy

It is the practice of the University of Central Florida to reasonably accommodate the religious observances, practices, and beliefs of individuals in regard to admissions, class attendance, and the scheduling of examinations and work assignments. A student who desires to observe a religious holy day of his or her religious faith must notify all of his/her instructor in writing **at the beginning of the term (prior to the end of the add/drop period)** to be excused from classes to observe the religious holy day. (Please note that documentation may be requested.)