MATH 2574H	**Honors Calculus III**	Fall 2015
Section: 001	MTWThF 2:00 – 2:50	Prof. Matthew Clay
	KIMP 411	

Office: SCEN 337 **Email**: mattclay@uark.edu **Phone**: 575–5195
Course Website: `http://comp.uark.edu/~mattclay/Teaching`

Office Hours: Monday: 9:30 – 10:30, Tuesday: 3:00 – 4:00 and Friday: 9:30 – 10:30
If you are unable to use any of the above times, please make an appointment to see me.

Text: *Vector Calculus*, 6th edition, by Jerrold E. Marsden and Anthony Tromba

Prerequisites: MATH 2564 with a grade of A, or MATH 2564H with a grade of A or B, or a score of 5 on the AP BC Calculus exam.

Goals: In this course you will learn how to apply the tools from Calculus I & II to functions of more than one variable and to multi-valued functions. Specifically we will learn how to differentiate and integrate such functions. We will see that most of the formulas you learned in Calculus I & II hold for these functions with an appropriate extrapolation. Toward the end of the semester we will see three very important theorems (Green's Theorem, Stokes' Theorem and the Divergence Theorem) that relate an integral over a region with an integral over the region's boundary. These are natural extensions of the Fundamental Theorem of Calculus and have important applications to physics and engineering. We will cover chapters 1 – 8 of the text.

Academic Honesty Policy: As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail. Each University of Arkansas student is required to be familiar with and abide by the University's "Academic Integrity Policy" which may be found at `http://honesty.uark.edu`. Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor.

Class Conduct: Attendance (both physical and mental) in lecture is *mandatory*. Using a mobile device inappropriately counts as an absence and *you will be asked to leave the classroom*.

Exams/Quizzes: There will be three in class exams (Thursday, September 24, Thursday, October 15 and Thursday, November 5) and a final exam on Monday, December 14 at 1:00 – 3:00 PM. In place of one of the in class exams or the final exam a written project may be submitted. There will be weekly quizzes, some of which will be take-home. The lowest quiz grade will be dropped.

A make-up for an exam will not be given without a compelling reason and my *prior consent*. *You must inform me before the exam* if you are to miss it due to illness, University related activity or religious holiday. You must inform me either through a phone call or in person. A make-up for a quiz will only be allowed for justifiable and documented absences. *This is a very strict policy.*

Challenge Problems: Each week there will be a challenge problem posted on Blackboard. A complete solution including justification is required to receive credit.

Homework: Homework is assigned daily but will not be collected. It is expected that you have attempted each assigned problem. *Homework assignments are very important to the learning process. Math is not a spectator sport, the only way to get better is to practice.*

Calculators: Calculators are not permitted on any quiz or exam.

Course Grade:

- Quizzes (Weekly) - 15%
- Challenge Problems (Weekly) - 10%
- Exam 1 (Thursday, September 24) - 20%
- Exam 2 (Thursday, October 15) - 20%
- Exam 3 (Thursday, November 5) - 20%
- Level I Project (Friday, December 4) - 20%
- Final or Level II Project (Monday, December 14, 1:00 – 3:00 PM) - 25%

If a Level I project is submitted, the lowest in class exam will be dropped.

Letter grades: $A : 100 - 90;\ B : 89 - 80;\ C : 79 - 70;\ D : 69 - 60;\ F : 59 - 0$

Important Dates

Monday, August 24	Classes Start
Friday, September 4	Last day to drop without W
Monday, September 7	Labor Day
Thursday, September 24	In class exam 1 (20% of grade)
Thursday, October 15	In class exam 2 (20% of grade)
Monday, October 19 – Tuesday, October 20	Fall Break
Thursday, November 5	In class exam 3 (20% of grade)
Friday, November 21	Last day to drop with W
Wednesday, November 25 – Friday, November 27	Thanksgiving Break
Friday, December 4	Last day to turn in Level I project
Thursday, December 10	Last day of classes
Monday, December 14	Final Exam (1:00 – 3:00 PM) Level II project deadline (25% of grade)

See `http://calendars.uark.edu` *for the complete academic calendar and final exam schedule.*

Special Accommodation: Students who are registered with the Center for Educational Access must notify the instructor in writing by the end of the first week of class, or within one week of registering with CEA.

Inclement Weather Policy: Class will be held if the University is officially open. Allowances will be made if you are unable to safely reach the campus, but, bravely, class will go on! Do not call the Math office for inclement weather information. Instead, you should call the following telephone number: 575-7000.

Disclaimer: Information on this syllabus is subject to change. Any change will be announced in lecture.