Multivariable Calculus
Math 281
Section 3515 (4.0 Units)
Classroom 53-544A

Office Number: Room 31-382
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Office Hours:
Monday and Wednesday: 1:30 p.m. – 2:30 p.m.
Tuesday and Thursday: 1:00 p.m. – 2:00 p.m. or 5:00 – 5:30 p.m.

Meeting Days/Dates/Times:
Mondays and Wednesdays 5:30 p.m. - 7:20 p.m.
August 18 – December 9, (sixteen weeks + finals)
Final exam: Tuesday, December 9, 6:05 – 8:05 p.m.

Course Prerequisite:
A grade of "C" or higher in Math 280.

Course Content:
This course is the third of a three course sequence in calculus. Topics include vectors and the geometry of space, vector valued functions, calculus of functions of more than one variable, partial derivatives, multiple integration, vector calculus, Green's Theorem, curl and divergence and Stoke's Theorem.

Student Learning Outcomes: Students will be able to:
- Use rectangular, polar, parametric, cylindrical and spherical coordinates to solve a variety of integrals and associated application problems.
- Analyze, graph and solve equations related to multi-variable functions.
- Evaluate, interpret and apply higher order partial derivatives.
- Analyze and interpret physical examples of vector fields and vector functions.

Required Materials:
Text: *Stewart*, Calculus early transcendentals, 7th edition, ISBN # 978-0-538-49787-9
www.webassign.net class code for access to e-book: gcccd 3332 0015

Graphing software will be very helpful visualizing many of the three dimensional curves we will be studying. There are many options available that we can discuss in class.

Grading:
Grades will be earned based on a standard scale:
A+: 100 – 97, A: 96 – 94, A-: 93 – 90, B+: 89 – 87, B: 86 – 84, B-: 83 – 80,
C+: 79 – 77, C: 76 – 74, C-: 73 – 70, D+: 69 – 67, D: 66 – 64, D-: 63 – 60, F: Below 60

Assignments:
Grades will be based on the following assignments:
Homework 20%, Exams 60%, Cumulative Final Exam 20%

Class Policies:
You are allowed to miss a total of four hours of class time. After that, you may be dropped from the course. I do not recommend missing any class time.

There are no make-up quizzes or exams. If you know in advance that you will miss an exam, please call me before the exam to see if other arrangements can be made.

Homework should be completed regularly. Homework will be due on the test day for the sections being tested. I will not accept late homework.

Respect for the teaching/learning process is expected from every person in this class. Some examples of this are:

- Do your assignments on time so you can discuss the work in class.
- All cell phones are turned off.
- No talking to neighbors unless requested by the instructor.
- Be in class on time with all necessary materials ready to go.

Academic Integrity:
Cheating and plagiarism (using as one's own ideas, writings or materials of someone else without acknowledgement or permission) can result in any one of a variety of sanctions. Such penalties may range from an adjusted grade on the particular exam, paper, project, or assignment to a failing grade in the course. The instructor may also summarily suspend the student for the class meeting when the infraction occurs, as well as the following class meeting. For further clarification and information on these issues, please consult with your instructor or contact the office of the Assistant Dean of Student Affairs.

Accommodations for Students with Disabilities:
Students with disabilities who may need accommodations in this class are encouraged to notify the instructor and contact Disabled Student Services & Programs (DSP&S) early in the semester so that reasonable accommodations may be implemented as soon as possible. Students may contact DSP&S in person in room 110 or by phone at (619) 644-7112 (voice) or (619) 644-7119 (TTY for deaf).

Supervised Tutoring Referral

Students are referred to enroll in the following supervised tutoring courses if the service indicated will assist them in achieving or reinforcing the learning objectives of this course:

> IDS 198, Supervised Tutoring to receive tutoring in general computer applications in the Tech Mall;
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> English 198W, Supervised Tutoring for assistance in the English Writing Center (Room 70-119); and/or
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> IDS 198T, Supervised Tutoring to receive one-on-one tutoring in academic subjects in the Tutoring Center (Room 70-229, 644-7387).

To add any of these courses, students may obtain Add Codes at the Information/Registration Desk in the Tech Mall.

All Supervised Tutoring courses are non-credit/non-fee. However, when a student registers for a supervised tutoring course, and has no other classes, the student will be charged the usual health fee.

Some comments on your homework assignments: This course will prove to be very challenging to most of you. To succeed you must work hard and keep up with the class. My suggestion is that you consider your entire academic schedule before committing to this class. Do not take too many units or too many other challenging classes along with this one.

I recommend reading your text even though many of you will find this to be challenging. Next year at the university, your professor will just assume that you are reading their texts, many of which will be very difficult to read. Since you are all engineers, physicists, mathematicians, etc., making a concerted effort to read your text now will prepare you for the challenging texts you will study in the future.

I have specifically assigned problems that have solutions in the back of the text for you to be able to check your work. Furthermore, I will do many even numbered problems for you. You should do as much of the suggested problems as you can. The more problems you try to do, the more experience you will get and the more success will come. I also recommend reading over the discussion problems at the end of each section even if you do not understand all of them. **Do your homework regularly and keep pace with the class.**

Tentative Schedule Math 281

Week	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1 8/18 – 8/22		12.1/12.2		12.3/12.4	
Week 2 8/25 – 8/29		12.4/12.5		12.5/12.6	Last day to drop w/o "W"
Week 3 9/1 – 9/5	Holiday Labor Day	13.1/13.2		13.2/13.3	
Week 4 9/8 – 9/12		13.3/13.4		Exam One	
Week 5 9/15 – 9/19		14.1/14.2		14.2/14.3	Last day to apply "P/NP"
Week 6 9/22 – 9/26		14.3/14.4		14.4/14.5	
Week 7 9/29 – 10/3		14.5/14.6		14.6/14.7	
Week 8 10/6 – 10/10		14.7/14.8		Exam Two	
Week 9 10/13 – 10/17		15.1/15.2		15.3/15.4	
Week 10 10/20 – 10/24		15.4/15.5		15.6/15.7	
Week 11 10/27 – 10/31		15.7/15.8		15.8/15.9	
Week 12 11/3 – 11/7		15.9/15.10		Exam Three	Last day to drop
Week 13 11/10 – 11/14		Holiday Veterans Day		16.1/16.2	
Week 14 11/17 – 11/21		16.2/16.3		16.3/16.4	
Week 15 11/24 – 11/28		Exam four		Holiday Thanksgiving	Holiday Thanksgiving
Week 16 12/1 – 12/5		16.4/16.5		16.6/16.7	

Final Exam is Tuesday, December 9, 6:05 p.m. – 8:05 p.m.