

COURSE: Math 283: Multivariable and Vector Calculus Fall 2012 CRN: 71263
Meeting days and times: MWF 10:30 – 11:55 am Room 1702

PREREQUISITE: One year (two semesters or three quarters) of calculus with analytic geometry with a C or better in each course, or the equivalent. If you took these courses at another college, your first year of calculus may not have included multivariable functions and vectors. You are responsible for learning this material independently if your previous courses did not cover it. Come see me for help with this!

COURSE DESCRIPTION AND OBJECTIVES:

Welcome to Multivariable and Vector Calculus! In this course, we will be extending the concepts of calculus into the three- (and higher)-dimensional realm. You will leave this course with some powerful tools for modeling the behavior of objects moving in space, as well as other phenomena such as work done by a force field and magnetic flux.

We will be using a textbook which examines mathematics from three distinct perspectives: numerically, as in using actual data; geometrically, which was often the original approach used by the mathematical physicists who developed much of this mathematics; and algebraically/analytically, as in using algorithms, identities and formulas to solve problems. You will also be asked to explain, in writing, some of the concepts we study. If this is your first math course at Cuesta, this approach to mathematics may be very different from what you're used to. The benefit of this approach is that you will gain a much deeper understanding of the concepts underlying all of the formulaic tools. We will cover chapters 14 to 20 in the text, with some review from Chapters 12 and 13.

INSTRUCTOR: Peggy Wright

Office: 3439 (Upstairs in the High Tech Building, behind the Computer Lab)
Office Hours (Room 3439): M, W, F 9:30 – 10:30 am **Math Lab Hours** (Room 3304) : T, Th 1:30 – 2:30 pm
Phone: 546-3100 ext 2586; **e-mail:** pwright@cuesta.edu ; **Webpage:** www.wrightmath.info

ADDING THE COURSE: If I give you an add code for the course, you must use it to add by the next class. If you have missed any of the first days of class, it is your responsibility to get all the material you need for the course (including notes on information you've missed), to come to my office hours to get oriented and to catch up on all homework.

ATTENDANCE POLICY: If you have more than 3 absences during the semester, I may drop you. If you need to be absent for any reason, please contact me or leave a message. Please note, if you stop attending the course, it is your responsibility to "officially" drop.

REQUIRED COURSE MATERIALS

Textbook: Calculus: Single and Multivariable, Fifth Edition; Hughes-Hallett/Gleason et al. ISBN: 978-0-470-08914-9

Technology: A graphing calculator is a useful tool, however it will not be required for this class. You will need to use a computer with internet access for some of the homework (computers are available in the computer lab in building 3400 and also in the Math Lab, in Room 3304). You will also need a scientific, non-graphing calculator for exams.

GRADING:

Tests (5 exams)	500 points
Final Exam (Cumulative)	200 points
Homework (includes homework, projects, quizzes, misc. work)	100 points

Note: The percent score on the final will replace the lowest test score (including a missed exam), **provided** that you have done ALL of the homework for that exam, by the time of the final exam. You will turn in the completed homework packet on the day of the final, unless you have already earned 100% on that homework set.

The grade you earn in the course will be based on your overall percentage score, with the following percent ranges and grades:
90 – 100% A, 80 – 89% B, 70 – 79% C, 60 – 69% D, Below 60% F

Exam dates will be announced at least a week in advance in class.

POLICY ON LATE WORK and MAKE-UPS:

EXAMS/QUIZZES: No make-up exams or quizzes will be given, except in the case of genuine emergency, in which case you must contact me *on or before the day of the test*. There will be an automatic 10 point deduction on an exam taken late.

HOMEWORK: Homework is due on the day of the exam. Late homework will not be given any credit, so turn in whatever you've completed by exam day.

HOMEWORK: Problems from the text will be given on the course webpage. You should read the section, then do the assigned problems by the class meeting following the lecture on that topic. If you get stuck on a problem in the homework, you can ask about it at the beginning of the next class meeting, and time permitting, we will go over it. If you get stuck on the entire assignment or even several of the problems, then you should get help outside of class. Don't wait until right before the exam. Come to office hours, get a tutor, consult another student, etc.

Homework will be collected on the day of each exam.

You are expected to "self-assess" meaning you will check your own answers, correct the problems as needed and score each assignment based on the number of problems completed (with correct answers) over the total number of problems assigned. I will spot check your assessment and if you've been accurate, that's great! However, if you give yourself credit for problems you haven't done, or haven't done correctly or haven't shown work for, then the entire assignment will receive a zero. Be accurate in your grading.

Please do not copy solutions from the solutions manual.

POLICY ON CHEATING: Don't cheat. Don't copy other people's work, don't give your work to others to copy, don't bring notes to exams or hide formulas in your calculator. Consequences for cheating can range from receiving no credit on homework/ quizzes/exams to being subjected to academic discipline to having an annotation put on your transcript labeling you as academically dishonest to dismissal from the college.

HELP! The best help available is from your instructor...make time for office hours if you can!

Free weekly tutoring sessions are available in the Tutorial Center, Building 3300.

There is also drop-in math help available in Room 3304.

IMPORTANT DATES

Last day to add: Monday, September 3

Last day to petition for pass/no pass option: Friday, September 14

Last day to withdraw without a "W": Monday, September 3

Last day to withdraw with a "W": Sunday, November 11

Final Exam Day and Time: Wednesday, December 19 9:45 – 11:45 am

STUDENTS WITH DISABILITIES

If you have a learning or physical disability and might need accommodations in this class, please contact *Disabled Student Program & Services* in Building 3300 as soon as possible to ensure that you receive the accommodations as soon as possible. I also encourage you to come talk to me about any questions, concerns or needs that you may have.

STUDENT LEARNING OUTCOMES: <http://academic.cuesta.edu/math/courses.htm>