Math 104 – Vector Analysis
Spring 2016

Instructor: Dr. Corey Shanbrom
Email: corey.shanbrom@csus.edu
Office: Brighton 144
Office Hours: Monday 2:30-3:30pm, Wednesday 10:30-11:30am, and Thursday 1:30-2:30pm, or by appointment

Prerequisites: Grade of C- or better in Math 32. You need to prove that you have satisfied this condition by the end of the first week.

Text: There is no required or official textbook for this course. You will learn everything you need to know by coming to class and completing all assignments. However, we will roughly be following *Vector Calculus, 6th ed*, by Marsden and Tromba. I recommend buying this book if you can afford it – it contains excellent pictures, examples, and explanations, and will serve as a good reference in your future. Older editions are much cheaper and almost as good. I also recommend the associated *Study Guide* (6th ed), which contains a more concise summary of the main topics as well as fully worked solutions to many problems. Both books are available new, used, and for rent in the Hornet Bookstore as well as online. I have also posted three free Calculus 3 texts to SacCT; these contain some bits of vector analysis.

Grading: Homework 25%, Midterms 30%, Final 30%, Special Assignments 15%, This is an approximation. Letter grades will be determined by a curve at the instructor's discretion. Detailed instructions for special assignments will be provided later in the semester. These may include papers, group work, or presentations.

Exams: There will be two midterms, each worth about 15% of your final grade. No notes, books, electronic devices, or bathroom breaks will be permitted during any exam. Exam make-ups will be permitted only in the case of a documented emergency. Midterm dates will depend on our progress, but will be announced at least one week before the exam. The final will be comprehensive and held Wednesday, May 18, 10:15am-12:15pm.

Homework: Problems from will be assigned weekly and will be due in class every Wednesday. Assignments will be posted to SacCT. Many problems will be assigned – only some will be graded. Exams will include HW problems. Late HW will be accepted at a penalty. Take your homework seriously --you will learn more by struggling with homework problems and reading my feedback than you will by sitting in class.

Resources: I am your primary source for help with the material, but other resources are available, including your classmates. You can and should form study groups; these can meet in the Math Lab in Brighton 118. You should read each other's work. Also, other textbooks and websites (eg, Wikipedia, Mathworld, even Youtube) are helpful. I will regularly post helpful documents and websites to SacCT.

Catalog Description: Vector and scalar fields, integral theorems, orthogonal curvilinear coordinates, vector spaces and linear transformations, applications to physical fields and operators.

Remarks: If you have a disability and require accommodations, you need to provide disability documentation to SSWD, Lassen Hall 1008, and discuss your needs with me as soon as possible.

Cheating of any type will result in disciplinary action and an automatic fail. This will show up on future background checks, grad school applications, etc. If you are unsure what constitutes cheating, please see Sac State's Academic Honesty Policy; I have provided a link on SacCT.