

MATH 251-509&510: Engineering Calculus III

Fall 2011

About your instructor

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Office hours: M 11:00am-2:00pm, R 1:00pm-1:30 pm and by appointment (*in Blocker 629F*).

Meeting Times/Locations: The lecture meets TR 2:20-3:35 in HELD 109 (Section 509) and TR 3:55-5:10 in HELD 109 (Section 510).

Math 251 Course Home Page URL address: <http://calclab.math.tamu.edu/docs/math251/>

CATALOG DESCRIPTION: Vector algebra, calculus of functions of several variables, partial derivatives, directional derivatives, gradient, multiple integration, line and surface integrals, Stokes' theorem.

COURSE OBJECTIVES: We will cover much of chapters 11-14 of the text. Most of this course covers three-dimensional analytic geometry and vectors, partial derivatives, multiple integrals, and vector calculus.

Students should be able to demonstrate an understanding of the material as covered during lectures and demonstrate ability to use these concepts on exams, quizzes and homework. At the end of this course, students should be able to visualize surfaces in 3-dimensional space; apply partial differentiation to extremal problems and to variety of engineering applications; apply techniques of multiple integration to a variety of physical and engineering applications; find potential of conservative vector field and apply various types of Stokes' theorem.

PREREQUISITES: Math 152 (Calculus II) or equivalent.

CREDITS: 3 credits.(Credit will not be given for more than one of MATH 221, 251 and 253.)

TEXTBOOK: Calculus: Early Vectors (Aggie Version), by Stewart, Brooks/Cole, ISBN 0534493483. This course covers Chapters 11 – 14.

GRADE INGREDIENTS:

Option I: 3 Exams (17% each), Final Exam (24%), On-line HW (8%), Quiz & other HW (17%).

Option II: 3 Exams (20% each), Final Exam (20%), On-line HW (10%), Quiz & other HW (10%).

The larger of Option I and Option II will be your final score.

LETTER GRADES: A(90-100%), B(80-89%), C(70-79%), D(60-69%), F(0-59%)

(I have been known to curve final grades if I feel that it is warranted.)

EXAM SCHEDULE: There will be THREE exams tentatively on R 9/29/, R 10/27, T 11/22. For section 509 final exam will be on Monday, 12/12, 1-3 p.m. For section 510 final exam will be on Tuesday, 12/13, 8-10 a.m.

EXAMS: Exams 1, 2&3 will be given during the regular class time. Calculators will NOT be allowed on the exams and Final. The Final exam will be comprehensive. Remember to bring your ID with you for all exams!

ON-LINE HOMEWORK will be assigned from the WebAssign Homework system. All information regarding online homework can be found at <http://www.math.tamu/ehmwk>.

QUIZZES will be given in lecture. Additional paper HOMEWORK (=take-home quiz) may be assigned and is due on the announced dates. Late homework will not be accepted.

SUGGESTED HOMEWORK: You can find practice problems in my webpage. These problems will not be graded. However, it is **IMPERATIVE YOU DO THE SUGGESTED HOMEWORK TO PREPARE FOR QUIZZES AND EXAMS!!!**

CLASS ANNOUNCEMENTS AND E-MAIL POLICY: Class announcements will be posted on my homepage. It is your responsibility to check them weekly. Some important course announcements might be sent to your NEO e-mail account. It is your responsibility to check the NEO account and get familiar with the announcements.

ATTENDANCE is REQUIRED: I will take daily attendance. If you sign the roll sheet, you are expected to remain in the classroom for the entire 75 minutes. More than 3 absences may have a detrimental effect on your grade especially in borderline cases. Come to class on time.

MAKE-UP POLICY: If you miss an exam, you must contact me within 48 hours. Exams must be made up within 30 calendar days and require appropriate documentation of a university-excused absence. Make-ups are subject to university policy. There will be NO make-ups for ON-LINE HOMEWORK, QUIZZES or paper HOMEWORK. Rather, the lowest three on-line homework grades and two quiz or paper homework grades will be dropped before averaging.

TENTATIVE WEEKLY SCHEDULE: All changes will be announced in class or via e-mail.

Week 1: 11.1-11.4	Week 2: 11.5-11.6	Week 3: 12.1,12.3, 12.4
Week 4: 12.5, 12.6, 12.7	Week 5: 12.8, Exam 1	Week 6: 14.1, 14.2
Week 7: 13.1, 13.2, 13.3	Week 8: 13.4, 13.5, 13.6	Week 9: 13.8, Exam 2
Week 10: 13.9, 13.10	Week 11: 14.3, 14.4	Week 12: 14.6, 14.7
Week 13: Exam 3	Week 14: 14.5, 14.8, 14.9	Week 15 Review

GETTING HELP: First, if you have a question, do not hesitate to ask before, after, or during a class. Second, I encourage you to attend my office hours to get individual help. You do not need an appointment to come to regular office hours. If your schedule does not permit you to come to the announced office hours, send me an e-mail and we will make an appointment to meet at some other day/time.

GRADE COMPLAINTS: Sometimes the instructor might make a mistake grading your work. If you feel that this has happened, you have one week since the graded work was handed back to you to talk to the instructor. If a mistake is confirmed, the grade will be changed. No complaints after that deadline will be considered.

STUDENTS WITH DISABILITIES: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Services for Students with Disabilities (Cain Hall, Room B118, or call 845-1637).

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SCHOLASTIC DISHONESTY: "An Aggie does not lie, cheat, steal, or tolerate those who do." Visit <http://www.tamu.edu/aggiehonor> and follow the rules of the Aggie Honor Code.

NOTE: This syllabus is subject to change at the instructor's discretion. The instructor reserves the right to make any changes he considers academically advisable. It is your responsibility to attend classes and keep track of the proceedings.

GOOD LUCK IN YOUR STUDIES!