Syllabus: Math 251, Fall 2015, Sections 504 and 513

Instructor

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Lectures

- Section 504: Monday, Wednesday and Friday, 12:40 - 1:30 p.m. at HELD 109
- Section 513: Monday, Wednesday and Friday, 9:10 - 10 a.m. at HELD 107

Office hours

Monday and Friday 10:20 to 11:50 a.m.

Description

- Webpage: http://www.math.tamu.edu/courses/math251/
- Credits: 3
- Course description: Vector algebra, calculus of functions of several variables, partial derivatives, directional derivatives, gradient, multiple integration, line and surface integrals, Greens and Stokes theorems.
- Textbook: J. Stewart, Calculus: Early vectors, Brooks / Cole Publishing Company, 1999. If you have registered to the course, then an electronic version of the book is already available to you online at https://www.webassign.net/tamu/login.html. Printed versions are available but not required.
- Course Objectives: We will cover Chapters 11–14 of the book. We will generalize notions already seen in $\mathbb{R}^2$ to the 3-dimensional space, such as vectors, and we will cover different objects used in, e.g., physics and electronics; partial derivatives, multiple integrals, and vector calculus. We will see many applications to engineering problems. At the end of the course, students should be able to manipulate all these objects correctly in order to apply techniques seen in this course to engineering applications. For example, they should be able to
  1. Visualize quadric surfaces in space.
  2. Differentiate functions of several variables at the second order and apply it to extremal problems.
  3. Determine the tangent plane to a surface at a point.
  4. Parametrize curves in space, compute line integrals and apply these notions to engineering problems.
  5. Apply multiple integration to geometric problems (such as area and volume computations) and to engineering problems.
  6. Apply Stokes' Theorem.

- Weekly Schedules: We will follow the suggested weekly schedule, which can be found here: http://www.math.tamu.edu/courses/math251/currentsched.html

- Prerequisite: MATH 152 or equivalent.

Homework, practices, and help sessions

- You will have weekly assignments to complete on Webassign (Section: eHomework). It is **strongly** recommended that you do Practices before doing your eHomeworks. Practices are not graded and you get to see the correct answers. For more details you can visit http://www.math.tamu.edu/courses/eHomework/.
- For further practicing, a list of suggested Homework can be found on http://www.math.tamu.edu/courses/math251/currenthw.html
- Help Sessions: The Math Department offers help sessions for MATH 251, these are sessions given by a math department tutor who can help you to better understand some exercises. Please, check on http://math.tamu.edu/courses/helpsessions.html.

Exams

- Midterm Exams: Three midterm exams will be given at the regular time in the regular classroom. Tentative dates for these are:

  Exam I: October 2, covering 11.1 to 12.7.

  Exam II: October 30, covering 12.8 to 13.11.

  Exam III: December 4, covering chapter 14.

- Paper returning request: Please bring back the signed **"Paper returning request"**, which can be found on http://www.math.tamu.edu/~pavlos/, by Friday September 11. You are not obliged to sign this form, but if you don't, you will have to pick up graded midterm papers during office hours.
- Final Exam: The final exam follows the calendar of the Mathematics Department.
  - Section 504: Monday December 14, 10:30 a.m. to 12:30 p.m.
  - Section 513: Monday December 14, 8 to 10 a.m.
- Grading: Midterm Exams 60%, Final Exams 30%, eHomework 10%.
- Letter Grades: A (90% - 100%), B (80% - 89%), C (70% - 79%), D (60% - 69%), F (0% - 59%).
- All electronic devices (including, but not limited to, **calculators, cellphones, laptops**) are strictly forbidden during exams. If you are unable to comply with this policy, you will be asked to leave class and will not be allowed to make-up any assignments missed in class that day.
- Don't forget to bring ID for the exams!

Attandance, Make-ups, and Cheating

- Academic Integrity Statement: Remember the Aggie code of honor; "An Aggie does not lie, cheat, or steal, or tolerate those who do." Please see http://student-rules.tamu.edu/aggiecode for more details. There is no tolerance for any violation of the Aggie honor code.

- Make-up exams will be given only to students providing a University-approved excuse. If you miss an exam, you have to notify your instructor within 48 hours. Otherwise, the student forfeits her/his right to make-up. See http://student-rules.tamu.edu/ for more details.
- Disability services: 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 Disability Services, in Cain Hall, Room B118, or call 845-1637. For more information visit http://disability.tamu.edu.
- Copyright policy: All printed materials disseminated in class or on the web are protected by Copyright laws. One copy (or download from the web) is allowed for personal use. Multiple copies or sale of any of these materials is strictly prohibited.

The syllabus is subject to change at the instructor's discretion.