Welcome to
MATH 171, Section 501
Calculus I
MWF 10:20 – 11:10 am, BLOC 164; T 10:20 – 11:10 am, CE 223

Instructor:
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Instructor’s Office Hours (subject to occasional change/cancellation):
MW 3:00 to 5:00 pm, and by appointment

Prerequisite:
MATH 150 or equivalent, or acceptable score in TAMU Mathematics Placement Examination

Textbook:
Calculus: Early Vectors, by James Stewart

Grading:
There will be three examinations in all. The best of your three scores will account for 30%, the second best for 25%, and the third best for 20%. Homework assignments will account for the remaining 25%. Letter-grade assignments will be at least as generous as the following (standard) scale: < 60 → F; ≥ 60 < 70 → D; ≥ 70 < 80 → C; ≥ 80 < 90 → B; ≥ 90 → A.

Examinations:
Examination I: Wednesday, February 24th, 7:15 – 9:15 pm
Examination II: Wednesday, April 6th, 7:15 – 9:15 pm
Examination III: Monday, May 9th, 8:00 – 10:00 am, BLOC 164; may be postponed to Monday/Tuesday night

Course outline (section numbers refer to Stewart’s text):
This is a projected roadmap of the course. Modifications necessitated by circumstances are inevitable. Some of these sections, along with others in the text, may be assigned for reading.
Week 1:
• Two-dimensional vectors, dot product (Sections 1.1, 1.2)
Week 2:
• Vector-valued functions, parametric curves, Limit of a function (Sections 1.3, 2.2, 2.4)
Week 3:
• More on limits, continuity (Sections 2.3, 2.6, 2.5)
Week 4:
• Introduction to derivatives (Sections 2.7, 3.1, 3.2)
Weeks 5:
• More on derivatives (Sections 3.4, 3.5, 3.6)
Week 6:
• Higher derivatives, differentiation of vector-valued functions (Sections 3.8, 3.7, 3.9)
Week 7:
• Linear and quadratic approximations, related rates (Sections 3.11, 3.10)
Week 8:
• Exponential functions and their derivatives, inverse functions, logarithmic functions and their derivatives (Sections 4.1–4.4)
Week 9:
• Inverse trigonometric functions, hyperbolic functions, indeterminate forms (Sections 4.6–4.8)
Weeks 10 and 11:
- Extreme values, derivative analysis, optimization problems, antiderivatives (Sections 5.2, 5.3, 5.5, 5.7)

Weeks 12–14:
- Introduction to Riemann integration (Sections 6.1–6.5)

Learning objectives and outcomes: This is a first course in univariate calculus, featuring differential calculus for the most part, followed by a brief discussion of the rudiments of integral calculus. In addition, students will also be exposed to some basic theory of vector-valued functions and parametric curves in two dimensions. As this is a course targeted towards maths majors, emphasis will be laid on conceptual understanding and mathematical formality. In addition to the usual routine aspects/computational problems, students will also be expected to present simple proofs, definitions, statements of theorems, and the like, in a sound fashion.

Some important dates:
Friday, March 25th: Good Friday Holiday
Tuesday, April 19th: Last day to Q-drop
Tuesday, May 3rd: Classes will follow Friday’s timetable
Wednesday, May 4th: Reading day - no classes

Make-up policy:
University regulations state the following: To be excused the student must notify his or her instructor in writing (acknowledged e-mail message is acceptable) prior to the date of absence if such notification is feasible. In cases where advance notification is not feasible (e.g. accident, or emergency) the student must provide notification by the end of the second working day after the absence. This notification should include an explanation of why notice could not be sent prior to the class.

General remarks:
- Americans with Disabilities Act: 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 (currently located in the Disability Services Building, Student Services, White Creek Complex, West Campus), or call 979-845-1637. For additional information, see: http://disability.tamu.edu
- Academic Integrity: The Aggie Honor Code states the following: “An Aggie does not lie, cheat, or steal or tolerate those who do.” The Honor Council Rules and Procedures may be found here: http://www.tamu.edu/aggiehonor

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Age is an issue of mind over matter. If you don’t mind, it doesn’t matter.
– Mark Twain

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