MATH 2214 – Introduction to Differential Equations – Fall Semester 2013
CRN 94451, MW 2:30PM -3:45PM in ROB 210
CRN 94449, MW 4:00PM -5:15PM in RAND 216

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Office Hours:
- Friday 2:45PM – 3:30PM
- Other hours by appointment


Coarse Content: The course introduces important classes of differential equations and techniques for their solutions. Familiarity with these techniques is basic for studying any discipline of science or engineering. We will cover chapters 1, 2, 3, and parts of chapters 4 and 6. Ordinary differential equations; First order differential equations, second order linear equations, linear systems of differential equations, numerical methods.

Prerequisite: Math 1114 and 1206.

Grading: The final grade will be computed as follows:
- Homework 25%
- In-class Test-1 25% (Wednesday, October 16, during the class time)
- In-class Test-2 25% (Wednesday, November 20, during the class time)
- Common Time Final Exam 25% (Tuesday, December 17 at 1:00PM)

A course average of 90 - 100% guarantees at least an A-, 80 - 89% guarantees at least a B-, 70 - 79% guarantees at least a C-, and 60 - 69% guarantees at least a D-. Pluses or minuses are assigned at my discretion. All graded work should be kept by the students till the course is over.

Attendance: Attendance will be taken at every class meeting. It is not included into the calculation of your final grade. However, the students are responsible for any material covered in class and announcements made in class and posted on Scholar.

Homework: From the list of problems I will announce daily in class and will usually post in the Resources/Homework tab in Scholar, only selected problems will be graded. These problems will not be known to students in advance. For graded problems, a maximum of ten points per problem will be awarded. Except for problems selected for grading, homework will not be marked. If you miss a class, you are responsible for any announcements or assignment changes made, whether they are posted on-line or not. Homework will usually be collected at the start of class with unannounced problems graded. Late homework policy: You may, during the course of the semester, submit at most two late homework assignments for full credit provided that they are delivered to me in class no later than the next homework due date.
**Make-up policy:** If a student fails to take an exam or fails to hand in an assignment, his/her score is zero unless the reasons for the failure are serious, unavoidable, and beyond the student's control documented by the appropriate university office. Late work will not be accepted. It is to the student's advantage to inform the instructor before missing the work.

**Honor Code:** The Virginia Tech Honor Code applies to all graded work in this course. Students are responsible for understanding and adhering to the Honor Code. Among other things the Honor Code prohibits giving or receiving unauthorized aid, assistance, or unfair advantage on academic work, and it prohibits plagiarism. Under the Honor Code it is the responsibility of each student to consult with his/her instructor, if necessary, to ensure that the student understands exactly how the Honor Code applies to each piece of graded work.

**Special Needs Students:** Students with special needs or circumstances are encouraged to meet with me in my office as their earliest convenience.

**Important:** Students enrolled in this course are expected to know topics covered in Calculus I&II and Linear Algebra. This includes, but is not limited to, evaluating limits (indefinite forms), differentiation (product, quotient, chain rule, etc.), evaluating definite and indefinite integrals, solving systems of equations, basic matrix algebra (in particular multiplication and inverse of a matrix), finding determinants and finding eigenvalues/eigenvectors. We may have occasion to use computational software (Matlab and/or Mathematica) as tools for analyzing problems and visualizing their solution. No prior experience with these packages is required. Some Mathematica and Matlab resources are available at the department [2214 course homepage](#).

**Caution:** If you are not on the class roll after the last add date, immediately check your schedule at a terminal and start attending the proper section. For no foreseeable reason will you be allowed to stay in the wrong section or to drop a section for which you are actually enrolled after the last drop date. By simply attending a section you will not be placed on its roll.