Math 236

Differential Equations

Maryville College

Spring 2012

https://www.maryvillecollege.edu/academics/faculty/msiopsis/math-236/

Time and Text: : Differential **Instructor:** Maria Siopsis Location: Equations and Boundary Value Problems: Computing 206 Sutton Science Center and Modeling 4th edition by 981-8163 2-3:15 Tr maria.siopsis@maryvillecollege.edu SSC 201 Edwards and Penny Office Hours: ISBN: 0131561073 MW 10AM

Course Description: An introduction to differential equations using computer technology. Equations of order one, linear differential equations, undetermined coefficients, variation of parameters, differential operators and applications.

Homework (20% of final grade): There will be set of traditional homework assignments due every Thursday by 3:15 PM in weeks where there is no exam scheduled. Homework will not be due in weeks where an exam is scheduled. Homework questions will not be answered on the day the homework is due.

In-class Exams (15% each or 45% of final grade): There will be three in-class exams. Make-up exams will be given only in VERY exceptional circumstances. Exam dates are listed below. If you know you will be missing an exam for a sport or other scheduled activity please let me know well in advance (preferably at the beginning of the semester).

Exam 1 – Thursday, March 8th Exam 2 – Tuesday, April 10th Exam 3 – Tuesday, May 8th

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11 AM

Take Home Projects (5% each or 15% of final grade): At the end of each unit, a take home project will be assigned. This will typically entail the analysis of an application problem from a differential equations perspective using the software package *Berkeley Madonna* or *Maple*. It is expected that students will work only with assigned partners. Students may be expected to present their results to the class. See academic honesty below.

Final Exam (20%): The cumulative final exam for this course will be given on <u>Thursday, May 17th at 1:00 PM</u>. You MUST take the final at this scheduled time.

Grading Policy: Number grades will be given to all assignments and exams. The following policy will be used in converting final percentages to final letter grades:

If your final numerical	Then your final letter
grade is	grade is
≥ 90%	At least an A-
≥ 80%	At least a B-
≥ 70%	At least a C-
≥ 60%	At least a D-
< 60%	F

Technology: Graphing calculators are <u>not</u> required for this course but you are welcome to use one. You will be required to use software packages available in the computer lab (MAPLE, Berkeley Madonna) to do some assignments.

Study Guides: "Study Guides" will be posted on the course website regularly. These include the pages of the text you should read each day with a list of homework and suggested exercises. It is in your best interest to do these exercises even though they will not be graded. Exam questions will often be similar to those on the Study Guides. You are responsible for keeping track of homework assignments and due dates, even if I do not remind you in class.

Extra Help: My office hours are set aside for you to get help with homework or any other questions you may have about the course. You may make appointments to see me at other times if your schedule conflicts with my office hours. The best way to contact me is through e-mail if you are comfortable corresponding this way. I will also be corresponding with the class through e-mail.

Additional Information:

Attendance: Attendance at all classes is expected, but not enforced.

Students with disabilities: Students who may need special accommodations because of a documented disability should see me during office hours as soon as possible and <u>BEFORE THE FIRST EXAM</u>.

Academic honesty: For take-home projects, students will be required to sign a statement affirming that they have not consulted or shared any information with any person other than the professor and their partner. Students found to have violated this policy on any assignment will receive a zero for that assignment. In addition, a letter will be filed in the registrar's office documenting the breach of academic honesty policy. Finally, I will refuse to write letters of recommendation for any student caught violating the standards of academic honesty

Prerequisites: Math 225 (Calculus II) or equivalent. It is preferred that the student have already taken Math 235 (Calculus III).