Syllabus for MATH 213, Summer 2005

Instructor:	Ismar Volic
Meeting times:	MTWRF 9:15 – 10:15, Thornton Hall, Room E304
Office hours:	TBA, in Kerchof 327
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Email:	ismar@virginia.edu
URL:	https://toolkit.itc.virginia.edu:443/cgi-local/tk/UVa_SEAS_2005_Summer_APMA213-1
	Please check this page often. It will contain various important announcements and information about the course that you will be responsible for. You can also join discussion groups, provide feedback about the course, etc.
Text:	*Elementary Differential Equations and Boundary Value Problems,* by Boyce and DiPrima, 8th edition, Wiley & Sons, 2005. We will cover most of Chapters 1—4, 6, 7.

Attendance: It is not required that you come to class, although it is doubtful that you will do well in the course if you miss many lectures. If you do decide to attend, please be on time.

Prerequisites: APMA 111 or equivalent. Good command of single variable calculus is an absolutely necessary prerequisite for this class.

Course material and objectives: Differential equations are a way to mathematically model many real-life phenomena and are indispensable in all sciences and engineering. This course is an introduction to the techniques for solving various types of differential equations in search of a better understanding of the process that is being modeled as well as the prediction of its behavior in the future. By the end of the course, you will be able to understand the basic concepts in differential equations such as existence, uniqueness, and stability; solve several types of differential equations and interpret the solution in terms of the underlying system; and translate real-life problems into a suitable kind of a differential equation.

Homework: Homework assignments for the whole course can be found on the Toolkit page. The homework will be collected every Friday and I will tell you what to turn in each time. Teaching assistant will grade the homework and also hold office hours to help you with it (location and times to be announced).

Exams: There will be two midterm tests and a final examination. The final will be comprehensive, but emphasizing most recent material. The exams will be aimed at checking not your memorization and routine computational skills, but rather your understanding of fundamental concepts and principles and your ability to apply the material learned to solving various problems, including those you might have never seen before. If you miss an exam, you should expect a score of zero, unless you have contacted me *in advance* and we agreed upon a procedure to make it up. Students are reminded that under the rules of the College, early examinations are not permitted. Here are the dates of the exams:

Exam 1:	Friday, July 8, in class (one hour)
Exam 2:	Friday, July 29, in class (one hour)
Final:	Wednesday, August 10, 10:30—1 PM, location TBA

Point Distribution:	20%	homework
	20%	each exam
	40%	final

Calculators: Calculators are not required for this class. You may find them helpful in working out some of the homework problems (those marked with a mouse symbol), but no amount of computation can substitute for a rigorous solution or a formal proof, which is what we will emphasize. On exams calculators *may* be allowed only to aide you in routine arithmetic computations.

Important Dates:	June 14	first day of class
	June 15	deadline to add
	July 12	deadline to drop
	July 22	deadline to withdraw
	July 4	no class
	August 8	last class