

**SYLLABUS & HOMEWORK FOR DIFFERENTIAL EQUATIONS  
MATH 231 SECTION 009, FALL 2010**

**Professor:** Fernando Schwartz, Aconda Court 401C

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**Lectures:** Tuesdays & Thursdays 12:40-1:55pm, HBB 131

**Office Hours:** Tuesdays & Thursdays 2:20-3:20pm, or by appointment.

**Text:** *Fundamentals of Differential Equations*, by Nagel, Saff and Snider, 7th Edition.

**Course evaluation:** There are three exams, each worth up to 100 points. Homework counts for another 100 points. The final is worth up to 200 points. The maximum course score is 600. Your grade is roughly computed as follows: 90% or higher of the maximum course score is an A, between 80-90% is a B, 70-80% a C, and so on.

Homework is collected at the beginning of each class. Your homework score is the average of all but the worst assignment grade, and it is worth up to 100 pts.

If you find that circumstances will cause you to miss an exam, you **must** notify me **prior** to the exam. Besides email, you can leave a message for me at the departmental office, 974-2461.

**Special Accommodations:** Any student who feels that s/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. Please contact the Office of Disability Services at (865) 974-6087 to coordinate reasonable accommodations for students with documented disabilities.

DAILY COVERAGE AND HOMEWORK

Lesson	Topic(s)	Section(s)	Page / Homework
1	background, solutions and IVP	1.1, 1.2	5 / 1-17 14 / 1,3,5,9,10,15,16,18,19,20,22, 23,25,26,27,29
2	direction fields	1.3	22 / 1,3,4,5,7,9abcde
3	introduction, separable equations	2.1, 2.2	46 / 1,3,5,7,9,11,17,18,19,21,25,27b, 29,31abc,34
4	linear equations	2.3	54 / 1,3,5,7,10,11,13,15,17,18,19,20, 23,25a,28,32,39(noon)
5	exact equations, integrating factors	2.4 & 2.5	65 / 1,3,5,6,9,11,15,17,21,23,24,29,32, 33abd
6	substitutions, modelling	2.6 & 3.1	79 / 21,22,26 82 / 1,3,4,6,7,13,17,21,26,31,34
7	compartmental analysis	3.2	104 / 1,2,5,7,11,12,13,14
8	heating and cooling	3.3	113 / 1,2,5,7,11,12,13,14
9	newtonian mechanics	3.4	121 / 1,3,7,9,21,25abc
10	<b>Exam 1 - Tuesday 9/21</b>		