

Syllabus for Physics 201, Spring 2010

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We will be using the Third Edition of Boas's *Mathematical Methods in the Physical Sciences* as the text for this course.

The grading breakdown—which highlights the importance of regular work/attendance/assigned readings—will be as follows:

- 2 Reviews (30% total)
- Final or Final Project (20%)
- Weekly Problems Sets with selected group problem(s) (35%)
- Daily Web-based Problems Sets and Seminar Attendance(15%)

Attendance: Attendance at class follows the College's 25% rule.

Reviews: Take Home, usually lasting 1 week, 4-hour time limit.

Lecture Notes: copies of my lecture notes will be handed out every week.

Homework: There will be weekly assignments due at the beginning of class. Group and individual problems are clearly marked on the assignments. Those with an * are group problems. For group problems you may collaborate with other student(s). For individual problems, you will work alone. **Copying another student's work from this class or any previous class is an honor code violation. In addition, using any solution, other than those found in your textbook or discussed during office hours, is an honor code violation.** The word **Pledged** along with your signature and the date written on your homework signifies your compliance with this requirement. Homework will not be

accepted late or unpledged. Unsupported answers will not receive full credit. If you need help, please see me.

Daily Exercises: You will be assigned short exercises to prepare you for what will be covered in the next class, reinforce old material, or require you to study new material. You are required to access the Internet (WWW) in order to retrieve information and complete the exercises. They must be completed by 8am the morning of the next lecture.

Final Project: We will either have a final exam or a final project. The choice of topic for the final project will be chosen by the student under the direction and supervision of the instructor.

<i>Week/Reading/Date</i>	<i>Concept(s)</i>	<i>Assignment Due Dates</i>
Week # 1 Ch. 1 1/12, 1/14	Administration series and convergence 1.1 - 1.5	Due 1/15 Problem Set #0 Handout
Week # 2 Ch. 1 1/19, 1/21	series and convergence 1.6 - 1.15	Due 1/22
Week # 3 Ch. 2 1/26, 1/28	complex numbers 2.1 - 2.6	Due 2/5
Week # 4 Ch. 2 2/2 2/4	complex functions 2.8 - 2.15	Due 2/12
Week # 5 Chs. 3 2/9, 2/11	linear equations, matrices 3.1 - 3.4	Due 2/19
Week # 6 Ch. 3 2/18	linear equations, matrices 3.5 - 3.9	Due 2/26 Review#1 (Friday; Chs. 1-3)
Week # 7 Ch. 10 2/23, 2/25	linear transforms 10.1 - 10.4	Due 3/12
Week # 8 Ch. 10 3/9, 3/11	linear transforms 10.5 - 10.8	Due 3/19

<i>Week/Reading/Date</i>	<i>Concept(s)</i>	<i>Assignment Due Dates</i>
Week # 9 Ch. 5 3/16, 3/18	multi-variable integrals 5.1 - 5.5	Due 3/26
Week # 10 Ch. 6 3/23, 3/25	vector calculus 6.1 - 6.5	Due 4/2
Week # 11 Ch. 6 3/30, 4/1	vector calculus 6.6 - 6.8	Due 4/9
Week # 12 Ch. 6 4/8	vector calculus 6.9 - 6.11	Due 4/16 Review#2 (Friday: Chs. 10, 5,6)
Week # 13 Ch. 7 4/13, 4/15	fourier series 7.1 - 7.10	
Week # 14 Ch. 7 4/20, 4/22	fourier series and transforms 7.1 - 7.10, 15.1, 15.4	
Week # 15 Ch. 8 4/27, 4/29	differential equations 8.1 - 8.7	
Week # 16 Ch. 12 5/4	series solutions to DEs 12.1 - 12.22	
Week # 16-17 5/7-5/12 (8:40am)-(5:15pm)	Final Exam	Self-Scheduled/Comprehensive