Syllabus
Physics 498
1/17/2008

Phys 498: Senior Review
A capstone in which students review their overall knowledge of physics, solve problems involving all major areas of the undergraduate physics curriculum, and develop their oral communication skills. Required for graduation as a Physics major. Senior standing only. (3)

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Offices: 2018 NCPA MWF 8:00 – 9:45, 2:00-3:00 or by calling 915-5888 for an appointment. Tu 10:30 – 11:30, Th 10:30 - 11:30, 1:30-3:00.

I also am glad to answer questions by e-mail.

Texts: Access to Halliday/ Resnick/Walker – **Fundamentals of Physics**
Serway/Moses/Moyer – **Modern Physics**

Grading:

Attendance: 5 points a day
Review presentations: 10 points possible (estimated 10 presentations per student)
Study Notebook: 40 points
MFT: 40 points possible – sliding scale for each cohort – 20 points minimum
Final exam: 40 points – also adjusted for cohort

Academic Regulations:

Regular attendance is expected. Please do not come late.

Web site for correct time:

http://nist.time.gov/timezone.cgi?Central/d/-6

Goals:

The goal of Physics 498 is to synthesize previously taught material into a broad knowledge base. Since the class materials previously covered differs from student to student, the grades will be awarded principally on participation. The format is covered in detail in the syllabus below but can be summarized:

Example questions from standardized tests compiled into subject areas will be given as tests in class. The graded test will be used to discuss the physics background material and to assign further reading. Students will be asked to prepare review lessons on identified subject for presentation to the class. This material will also be used to stimulate further discussion and reading.

Each student will prepare a study notebook – loose leaf is probably best to incorporate handouts from other students and the teacher. These will be graded at the end of the semester.

A practice Majors Field Test covering all areas will be given about 3/4 of the way though the semester and again will be used to guide review and discussion. Toward the end of the semester, The Majors Field Test in Physics will be given to provide guidance to the faculty on how good a job we have done in teaching you physics and to provide you practice in taking standardized tests.

In the last weeks of class we will practice asking and answering physics questions in front of the class.

The final exam will investigate your understanding of the structure of your learning. No problems, just questions.

All students and professors are expected to follow the University of Mississippi Creed:

The University of Mississippi is a community of learning dedicated to nurturing excellence in intellectual inquiry and personal character in an open and diverse environment. As a voluntary member of this community:

I believe in respect for the dignity of each person

I believe in fairness and civility

I believe in personal and professional integrity

I believe in academic honesty

I believe in academic freedom

I believe in good stewardship of our resources

I pledge to uphold these values and encourage others to follow my example.

The syllabus below is subject to change to accommodate instruction and/or student needs.

Date	Subject	Homework
Jan 17	Organization – scheduling, background etc.	
Jan 22	Mechanics	Review 211, scan Mechanics - test
Jan 24	Mechanics	Lead review as assigned (this is what "review" means in entries below.)
Jan 29	Mechanics	review
Jan 31	E&M	Review 212, scan E&M - test
Feb 5	E&M	review
Feb 7	E&M	review
Feb 12	Optics and Waves	Review 212, Optics - test
Feb 14	Optics and Waves	review
Feb 19	Atomic Physics	Review Modern on Atomic- test
Feb 21	Atomic Physics	review
Feb 26	Special Relativity	Review Modern on Special Rel- test
Feb 27	**Deadline for course withdrawal**	
Feb 28	Special Relativity	review
Mar 5	Quantum Mechanics	Review Modern on QM
Mar 6	Quantum Mechanics	review
Mar 10-14	**Spring Break**	
Mar 18	Specialized topics	Review modern – Particles-Condensed matter - test
Mar 20	Specialized topics	review
Mar 25	Measurement, statistics	Review ?
Mar 27	Measurement, statistics	review
Apr 1	Discussion – wrap up sessiosn	
Apr 3	Discussion - wrap up questions	
Apr 8	Practice Field Test – grade - discuss	
Apr 10	Practice follow up	review
Apr 15	Physics Field test week	
Apr 17	Physics Field test week	
Apr 22	Scientific Ethics	
Apr 24	Orals	
Apr 29	Orals	
May 1	Orals	
Final Exam		