SYLLABUS FOR PHYSICS 211
Modern Physics

Fall Semester, 2000

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Text: Modern Physics for Scientists and Engineers
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The first semester of this introduction to quantum physics, Physics III, will cover special relativity and quantum theory through the three-dimensional Schrödinger equation. Following is an **approximate** schedule for the course. Problems you are to work are listed for each chapter. You should begin working the problems when we start a particular chapter and turn them in by the first class meeting after we complete the chapter. The work should be your own, as a portion of your grade will be based on this work.

As you see in the schedule, there will be two quizzes and a comprehensive final examination.

Your final grade in the course will be allocated as follows:

Quizzes: 40% - Lower grade:15%, Higher grade 25%
Problems: 30%
Final Examination: 30%

In case you misplace this syllabus, it may be found on my homepage (address above) under Course Syllabi, Introduction to Quantum Physics.

SCHEDULE AND PROBLEM ASSIGNMENTS FOR MODERN PHYSICS
INTRODUCTION TO QUANTUM THEORY

DAY	DATE	CHAPTER	ASSIGNED PROBLEMS
Thursday	August 24	1-Relativity in Classical Physics	1,6,8,10,13,16
Tuesday	August 29	1-Relativity in Classical Physics	
Thursday	August 31	2-The Space and Time of Relativity	6,8,15,17,25,28, 29,31
Tuesday	September 5	2-The Space and Time of Relativity	

Thursday	September 7	2-The Space and Time of Relativity	
Tuesday	September 12	3-Relativistic Mechanics	1,6,9,12,21,26,34, 38
Thursday	September 14	3-Relativistic Mechanics	
Tuesday	September 19	3-Relativistic Mechanics	
Thursday	September 21	**First Test - Chapters 1-3**	
Tuesday	September 26	4-Atoms	2,8,12,18,20,24
Thursday	September 28	4-Atoms	
Tuesday	October 3	4-Atoms	
Thursday	October 5	5-Quantization of Light	6,8,10,12,16,18,20
Tuesday	October 10	5-Quantization of Light	
Thursday	October 12	6-Quantization of Atomic Energy Levels	2,4,8,10,15,22
Tuesday	October 17	Fall Break	
Thursday	October 19	6-Quantization of Atomic Energy Levels	
Tuesday	October 24	7-Matter Waves	10,12,24,32,40,44, 48
Thursday	October 26	7-Matter Waves	
Tuesday	October 31	7-Matter Waves	
Thursday	November 2	**Second Test - Chapters 4-7**	
Tuesday	November 7	8-The Schrödinger Equation in One Dimension	8,12,18,28,36,38,44, 48
Thursday	November 9	8-The Schrödinger Equation in One Dimension	
Tuesday	November 14	8-The Schrödinger Equation in One Dimension	
Thursday	November 16	8-The Schrödinger Equation in One Dimension	
Tuesday	November 21	9-The Three-Dimensional Schrödinger Equation	4,10,20,26,32,34,44, 48
Thursday	November 23	Thanksgiving Break	
Tuesday	November 28	9-The Three-Dimensional Schrödinger Equation	
Thursday	November 30	9-The Three-Dimensional Schrödinger Equation	
Tuesday	December 5	9-The Three-Dimensional Schrödinger Equation	
Friday	December 8	Final Exam 5:30 – 8:00	