

PS 1301 (section 010): Introduction to Physical Science
Course Syllabus for Fall 2005, MWF 8:00-8:50 am

Instructor: Dr. Wayne Keith (942-2524 x227, wayne.keith@angelo.edu)
Office Hours: MW 9-12, TR 11-12, T 3-4, and F 9-10
Web: <http://physics.angelo.edu/~wkeith> and <http://blackboard.angelo.edu>
Text: *The Physical Universe (11th)*, by Krauskopf and Beiser
(returning students may continue to use the tenth edition)
Required: scientific calculator, paper, pen/pencil, parscore Form for exams

Course Description: Introduction to Physical Science is designed as a survey course for students whose backgrounds may not necessarily include extensive mathematics. High school level math skills are sufficient for the subject matter of this course. The material is intended to acquaint students with the basic laws of physics and develop a better understanding of the physical sciences. The first nine chapters of the text will be covered, including the scientific method, energy, heat, electricity, light, atoms and the structure of matter. The focus will be on conceptual understanding and relating the course material to real-world experience. The laboratory portion of this course is an important component for developing a better understanding of the material and concurrent enrollment (PS 1101) is required.

Course Goal: To introduce students to a wide variety of physical science concepts including basic laws of physics, atomic structure and the scientific method of problem solving.

Grading: 30% Class participation: attendance, short quizzes (up to one per class session), class participation (ie, discussion, volunteering etc.) Four lowest daily grades WILL BE DROPPED prior to computing overall grade.

30% Online chapter quizzes: Taken individually outside of class and may be repeated for higher score. Only highest score achieved for each quiz will be kept for grading.

20% Midterm exam: In-class exam covering material from the first half of the semester.

20% Final exam: In-class exam covering material from the second half of the semester.

Formula: Overall Grade = (daily average x 0.3) + (quiz average x 0.3) + (midterm x 0.2) + (final x 0.2)

Attendance/Make up policy: No make up quizzes or excused absences will be given for any reason, since four daily grades will be dropped. See instructor to request extra credit assignments to replace missed quizzes, however, there is no guarantee any extra credit will be available.

ADA Statement: Persons with disabilities which may warrant academic accommodations must contact the Student Life Office, Room 112 University Center, in order to request such accommodations prior to any accommodations being implemented. You are encouraged to make this request early in the semester so that appropriate arrangements can be made.

Academic Honesty: Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is contained in both print and web versions of the Student Handbook.

Final notes: Class discussion is strongly encouraged; please feel free to ask questions, during class or outside of class, about anything that is not clear. Properly preparing for class by reading the notes and textbook will help you with the in-class quizzes and in class participation.

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Week	Date	Lecture #	Tentative Lecture Topic	Associated Lab
1	8/29	1	Intro, Syllabus, Ch 1: The Scientific Method	Introduction and Scientific Method
	8/31	2	Ch 1: The Scientific Method	
	9/2	3	Ch 1: The Scientific Method	
2	9/5		No Class – Labor Day	NO LAB THIS WEEK
	9/7	4	Ch 1: The Scientific Method	
	9/9	5	Ch 2: Motion	
3	9/12	6	Ch 2: Motion	Distance, Velocity, Acceleration
	9/14	7	Ch 2: Motion	
	9/16	8	Ch 2: Motion	
4	9/19	9	Ch 2: Motion	Newton's Laws
	9/21	10	Ch 3: Energy	
	9/23	11	Ch 3: Energy	
5	9/26	12	Ch 3: Energy	Conservation of Energy
	9/28	13	Ch 3: Energy	
	9/30	14	Ch 3: Energy	
6	10/3	15	Ch 4: Matter and Energy	Calorimetry
	10/5	16	Ch 4: Matter and Energy	
	10/7	17	Ch 4: Matter and Energy	
7	10/10	18	Ch 4: Matter and Energy	Sink or Float
	10/12	19	Ch 4: Matter and Energy	
	10/14	20	Ch 4: Matter and Energy	
8	10/17	21	Finish Ch 4 and Midterm review	Lab Midterm
	10/19		MIDTERM EXAM – Ch 1-4 (In Class)	
	10/21	22	Go over Midterm and begin Ch 5	
9	10/24	23	Ch 5: Electricity and Magnetism	Hot Air Balloon
	10/26	24	Ch 5: Electricity and Magnetism	
	10/28	25	Ch 5: Electricity and Magnetism	
10	10/31	26	Ch 5: Electricity and Magnetism	Ohm Sweet Ohm
	11/2	27	Ch 5: Electricity and Magnetism	
	11/4	28	Ch 6: Waves	
11	11/7	29	The electromagnetic spectrum	Visible Spectrum
	11/9	30	Ch 6: Waves	
	11/11	31	Ch 6: Waves	
12	11/14	32	Ch 6: Waves	Optics or Diffraction
	11/16	33	Ch 6: Waves	
	11/18	34	Ch 7: The Nucleus	
13	11/21	35	Ch 7: The Nucleus	NO LAB THIS WEEK
	11/23	36	Ch 7: The Nucleus	
	11/25		No Class – Thanksgiving	
14	11/28	37	Ch 8: The Atom	Radioactivity
	11/30	38	Ch 8: The Atom	
	12/2	39	Ch 9: The Periodic Law	
15	12/5	40	Ch 9: The Periodic Law	Lab Final
	12/7	41	Ch 9: The Periodic Law	
	12/9	42	Final Review	
16	12/12		FINAL EXAM – Ch 5-9 (In Class)	NO LAB THIS WEEK