Syllabus: PHYS 1301 Physics for Non Specialists I

Instructor: Professor Alex Weiss
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Text Book (required) Inquiry into Physics
Vern J. Ostdiek and Donald J. Bold

Course Purpose: This course satisfies the University of Texas at Arlington core curriculum requirement in the life and physical sciences. It is aimed at students from the college of liberal arts and college of business and at students in the BS program in Interior Design of the School of Architecture (Note: This course is satisfies the physics requirements of the BS program in Interior Design of the School of the UT Arlington School of Architecture. (Note: this course will not, in general, satisfy the physics requirements of the College of Science, College of Engineering and programs other than the BS Program in Interior Design in the School of Architecture). The course incorporates an integrated 3 hour lab for which separate registration is required. Students will develop critical thinking, communication and empirical skills.

Course Description: The first half of a one-year, non-calculus based introductory physics course aimed at non-science students seeking a more a general understanding of the physical principals underlying everyday phenomena. This course satisfies The University of Texas at Arlington core curriculum requirement in Life and Physical Sciences.

Course Prerequisites: None listed (Familiarity with high school level algebra and geometry is required).

Objective To provide students with an understanding of the fundamentals of mechanics, waves, sound, heat and related forms of energy and to introduce students to applying physical analysis to the world around us.

Attendance and Drop Policy: Attendance is required. Absences should be discussed with the instructor - preferably before they occur. Dropping with a W is possible (for students with a passing average) with the permission of the instructor up to the last drop date allowed by the registrar.

Homework: Will be collected and evaluated.

Course Plan (Tentative) There will be three quizzes plus a cumulative final exam. In addition, a signature assignment consisting of a detailed write up of one of the laboratory experiments will be used to assess competency in the
application of physics principles to the understanding of real world phenomena.

**Grading**

- 4 Exams, 15% each - 60%
- Home/class work - 10%
- Lab - 10%
- Final Exam - 20%

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<th>Score</th>
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<td>90+</td>
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**Signature Assignment:** Report writing for one of the lab experiments

Instructions: The signature assignment will be one of the labs, for which you will have to prepare a report. This assignment will require some library research, some laboratory work and measurements. Your results will be reported in a term paper of at least 8 pages (double spaced 12pt including graphs and figures).

Your lab TA will inform you which lab your signature assignment will be depending on the lab group you are in. A detailed report-writing methodology and the grading rubrics will be provided ahead of the signature assignment.
Academic Dishonesty
It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

"Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts."

Disabilities
The Univ. of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public law 93112-The Rehabilitation Act of 1’973 as amended. With the passage of new federal legislation entitled Americans with Disabilities Act - (ADA), pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide "reasonable accommodation" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels.

Grade replacement
If you are retaking this course in order to replace a previous grade, you must complete the necessary form by census day. The forms required are located at the Bursar's Office in Davis Hall. If you do not complete the forms by census day, the University will not honor the replacement.

Library Information
Jason Neal is the Physics Librarian. He can be reached at (817) 272-3000, ext 4979 and by email at neal@uta.edu. Other physics information is found on the web site www.uta.edu/library/research/rt-phys.html <http://www.uta.edu/library/research/rt-phys.html>

Drop for non-payment of tuition
If you are dropped from this class for non-payment of tuition, you may secure an Enrollment Loan through the Bursar's Office. You may not continue to attend class until your Enrollment Loan has been applied to outstanding tuition fees.

Things you need to do
• Come to class on time
• Study the text – do not just read or look at pictures and figures –work it out- outline –summarize.
• Do your homework on time.
• Test yourself by answering questions at the end of the chapters and by trying unassigned problems.
• If you are not making any progress please discuss with me.
PHYSICS FOR NON SPECIALISTS I: PHYS 1301

XX Semester XXXX

HOME WORK (Tentative)

CHAPTER 1

Home Work # 1 Problems # 1, 6, 7, 10, 11, 14, 16 Due XX/XX/XX
Home Work # 2 Problems # 18, 23, 24, 25, 28, 29 Due XX/XX/XX

CHAPTER 2

Home Work # 3 Problems # 1, 3, 6, 7, 8, 10, 13 Due XX/XX/XX
Home Work # 4 Problems # 15, 18, 21, 23 and Challenges # 7 Due XX/XX/XX

CHAPTER 3

Home Work # 5 Problems # 1, 2, 5, 8, 9, 11 Due XX/XX/XX
Home Work # 6 Problems # 14, 17, 18, 21, 22, 26, 31, 32 Due XX/XX/XX

CHAPTER 4

Home Work # 8 Problems # 2, 3, 5, 6, 10,12, Due XX/XX/XX
Home Work # 9 Problems # 18, 22, 23, 25, 26, Due XX/XX/XX

CHAPTER 5

Home Work # 10 Problems # 2, 5, 6, 10,12, Due XX/XX/XX
Home Work # 11 Problems # 16,18, 24, 27 Due XX/XX/XX

CHAPTER 6

Home Work # 12 Problems # 1, 3, 6, 10,12, XX/XX/XX
Home Work # 13 Problems # 15, 16, 18, 19 XX/XX/XX