

Physical Science-Physics – SCIE 3301-007 – Winter '15-'16

Instructor	Dr. Greg Hale 105 Life Science Building or 224 Science Hall greg@hale.uta.edu https://www.uta.edu/profiles/gregory-hale phone: day: (817) 272-3807 (always try this number first) evening: (817) 275-7027 (before 8 PM) Office Hours: M-F 12-1, or by appointment			
Schedule	Monday through Friday 1:00 pm to 5:00 pm, 12/21; 1/4-1/7; 1/11-1/15			
Location	226 Science Hall			
Important Dates	1/8, 4:00 PM Last day for “W” 1/ 4 – Car & Ramp Lab Due 1/ 8 – Exam 1 1/ 4 – Simple Machine Intros 1/13 – Exam 2 1/ 4 – Batteries & Bulbs Lab Due 1/15 – Exam 3 1/ 7 – Homework 1 Due 1/12 – Homework 2 Due 1/15 – Homework 3 Due			
Description of Course Content	This integrated study of physics and chemistry includes force and motion, energy, work, simple machines, electric circuits, waves, and optics.			
Course Materials	Optional text: <i>Inquiry Into Physics</i> , Ostdiek and Bord, 5 th edition Required Lab Notebook: A basic composition (bound) notebook Additional materials will be provided.			
Grading Policy	Homework 20% Hands-on Labs and Notebook 20% Exams (3) 60%			
Points and Grades	A ≥90.00% B ≥80.00% C ≥70.00% D ≥60.00% Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels.			
Attendance	At The University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating students’ academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, my policy is as follows: Attending every class is highly recommended. Students are responsible for obtaining notes and/or handouts they have missed. To receive credit for the hands-on labs you must be present.			
Pass or Fail Grades	If P or F is a grade option in this class and you intend to take this class for a pass/fail grade instead of a letter grade, you must provide the instructor, the necessary paperwork, of your intentions before the census date.			
Student Feedback Survey	At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for			

this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

Course Schedule

12/21 Metric System, Scientific Notation, Sig Figs, Precision vs. Accuracy
12/22 Independent Work: Car & Ramp, Simple Machines, Bulbs & Batteries
1/4 Speed, Acceleration, Force
1/5 Simple Machines, Work, Energy
1/6 Power, Harmonic Motion, Waves
1/7 Sound, Light
1/8 Exam 1
1/11 Optics
1/12 Electric Charge, Voltage, Current
1/13 Exam 2, Ohm's Law, Kirchoff's Law
1/14 Series vs. Parallel Circuits
1/15 Motors & Generators, Exam 3

Cell Phones

Please turn off cell phone ringers when in class.

Student Learning Outcomes

- 1) Students will use and correctly convert between metric system units.
- 2) Students will record measurements with appropriate levels of precision.
- 3) Students will organize and communicate data.
- 4) Students will determine the velocity and acceleration of objects.
- 5) Students will explain the vector nature of force.
- 6) Students will apply Newton's Laws to the motion of an object.
- 7) Students will determine the work done on an object.
- 8) Students will explain the connection between energy and work.
- 9) Students will design electrical circuits that represent a real-world situation.
- 10) Students will demonstrate knowledge of the connection between voltage, resistance and current in an electrical circuit.
- 11) Students will demonstrate knowledge of the fundamental properties of waves and their interconnections, particularly for sound and light waves.

Electronic Communication

UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating & using MavMail is available at <http://www.uta.edu/mavmail>

Expectations for Out-of-Class Study:

Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 10-15 hours per week of their own time in course-related activities, including reading required materials, completing assignments, etc.

As the instructor for this course, I reserve the right to adjust this syllabus and course schedule in any way that serves the educational needs of the students enrolled in this course. – Dr. Greg Hale

Student Support Services

UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Drop Policy:

Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://web.uta.edu/aao/fao/>).

Disability Accommodations:

UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including *The Americans with Disabilities Act (ADA)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. All instructors at UT Arlington are required by law to provide “reasonable accommodations” to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the Office for Students with Disabilities (OSD). Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671.

Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Academic Integrity

All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic

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integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Emergency Exit Procedures

Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit which is located down the stairs just to the right as you exit the classroom. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

Title IX:

The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos. For information regarding Title IX, visit www.uta.edu/titleIX.

Final Review Week

A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Grade Grievances:

Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current University Catalog.

Copyright Statement

© Copyright 2015 Gregory R. Hale as to this syllabus and all lectures. Students are prohibited from selling (or being paid for taking) notes during this course to or by any person or commercial firm without the express written permission of Dr. Hale.

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