

**Texas A&M International University**  
**PHYS 1170-2L1**  
**Spring 2012**  
**M 1:30 pm – 4:00 pm BVC 208**

**Instructor:** Dr. Qingwen Ni (Dept. of Engineering, Mathematics and Physics)

**Office:** BVC 373C

**Office Hours:** T 10:30 am – noon, 2:30 pm -5:30 pm  
R 10:30 am – noon, or by appointment

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**Dept Secretary:** 956-326-2440

**Course Description:**

Laboratory course to accompany PHYS 1370. Laboratory exercises reinforce PHYS 1370 lecture material and place importance on scientific communication and collaboration as well as measurement methods. Some mention is made of uncertainty and basic error analysis. Must be taken concurrently with PHYS 1370. Carries no credit towards a major or minor in physics.

**Student Learning Outcomes:**

Upon successful completion of this course, the student will be able to:

1. Explain the basic principles of physics
2. Set up and operate instruments in the lab
3. Conduct experiments and collect experimental data
4. Interpret results and identify sources of errors
5. Prepare and submit a laboratory reports
6. Design and implement a scientific experiment to test basic physical science principles
7. Deliver oral presentations with appropriate visual aids.

**Core-Curriculum Learning Outcomes (CCO's):**

1. **Critical Thinking:** includes creative thinking, innovation, inquiry and analysis, evaluation, and synthesis of information (SLOs 2, 3, 4, 5, and 6).
2. **Communication Skills:** Students will demonstrate their ability to communicate effectively by using oral and visual communication (SLO 7).
3. **Empirical and Quantitative Skills:** Empirical and Quantitative Skills: includes the manipulation and analysis of numerical data or observable facts resulting in informed conclusions (SLOs 3, 4, 5, and 6).

**Caution:** Safety and Equipment Care.

**Textbook:** Physics Laboratory Experiments, Seventh Edition by Jerry D. Wilson.

**Mid-semester:** March 2

**Last day to drop without record is April 13**

**Spring Break** March 12 - 17

**Grading:**

Laboratory Report: 60%

Design Experiment Project: 20%

Final Exam: 20%

**Final Grade:** A $\geq$ 90%, B $\geq$ 80%, C $\geq$ 70%, D $\geq$ 60%, F $<$ 60%

**Late Policy:**

Lab report is due on the following week. Reports must be due on time, with the singular exception of documented excuses. Late report will be docked 50% of the face value for each day of tardiness. If you are going to miss a Lab, you must notify me in advance (preferably one week) so alternative arrangements can be made. If you miss a Lab which is not excused, a grade of zero will be assessed for that particular Lab. You must take the final exam in order to pass the course.

**Classroom Behavior** The college of Arts and Sciences encourages classroom discussion and academic debate as an essential intellectual activity. It is essential that students learn to express and defend their beliefs, but it is also essential that they learn to listen and respond respectfully to others whose beliefs they may not share. The College will always tolerate diverse, unorthodox, and unpopular points of view, but it will not tolerate condescending or insulting remarks. When students verbally abuse or ridicule and intimidate others whose views they do not agree with, they subvert the free exchange of ideas that should characterize university classroom. If their actions are deemed by the professor to be disruptive, they will be subject to appropriate disciplinary action, which may include being involuntarily withdrawn from the class.

**Plagiarism:** Plagiarism is the presentation of someone else's work as your own. **1)** When you borrow someone else's facts, ideas, or opinions and put them entirely in your own words, you must acknowledge that these thoughts are not your own by immediately citing the source in your paper. Failure to do this is plagiarism. **2)** When you also borrow someone else's words (short phrases, clauses, or sentences), you must enclose the copied words in quotation marks as well as citing the source. Failure to do this is plagiarism. **3)** When you present someone else's paper or exam (stolen, borrowed, or bought) as your own, you have committed a clearly intentional form

of intellectual theft and have put your academic future in jeopardy. This is the worst form of plagiarism.

Here is another explanation from the 2010, sixth edition of the *Manual of The American Psychological Association* (APA):

*Plagiarism:* Researchers do not claim the words and ideas of another as their own; they give credit where credit is due. Quotations marks should be used to indicate the exact words of another. *Each* time you paraphrase another author (i.e., summarize a passage or rearrange the order of a sentence and change some of the words), you need to credit the source in the text.

The key element of this principle is that authors do not present the work of another as if it were their own words. This can extend to ideas as well as written words. If authors model a study after one done by someone else, the originating author should be given credit. If the rationale for a study was suggested in the Discussion section of someone else's article, the person should be given credit. Given the free exchange of ideas, which is very important for the health of intellectual discourse, authors may not know where an idea for a study originated. If authors do know, however, they should acknowledge the source; this includes personal communications. (pp. 15-16)

Consult the Writing Center or a recommended guide to documentation and research such as the *Manual of the APA* or the *MLA Handbook for Writers of Research Papers* for guidance on proper documentation. If you still have doubts concerning proper documentation, seek advice from your instructor prior to submitting a final draft.

“Should a faculty member discover that a student has committed plagiarism, the student will receive a grade of “F” for the course, and the matter will then be referred to the Executive Director of Student life for possible disciplinary action.”

**Copyright:** “The Copyright Act of 1976 grants to copyright owners the exclusive right to reproduce their works and distribute copies of their work. Works that receive copyright protection include published works such as a textbook. Copying a textbook without permission from the owner of the copyright may constitute copyright infringement. Civil and criminal penalties may be assessed for copyright infringement. Civil penalties include damages up to \$100,000; criminal penalties include a fine of up to \$250,000 and imprisonment.”

**Students with Disabilities** Texas A&M International University seeks to provide reasonable accommodations for all qualified persons with disabilities. This University will adhere to all applicable federal, state, and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal education opportunity. It is the student’s responsibility to register with the Director of Student Counseling and to contact the faculty member in a timely fashion to arrange for suitable accommodations.

**Incompletes** Incompletes are discourages and are assigned only under extenuating circumstances. In fairness to those students who complete the course as scheduled, under no circumstances will an incomplete (“I”) be changed to an “A” unless the student has

experienced a death in the immediate family or has a written medical excuse from a physician.

**Independent Study Courses** Independent Study (IS) courses are offered only under exceptional circumstances. Required courses intended to build academic skills may not be taken as IS (e.g., clinical supervision and internships). No student will take more than one IS course per semester. Moreover, IS courses are limited to seniors and graduate students. Summer IS course must continue through both summer sessions.

**Student Responsibility for Dropping a Course before the drop date.**

**Final Examination is comprehensive.**

**All students must obtain a TAMIU e-mail address.**

**PHYS 1170-2L1 Class Schedule**

<b>Week of date (Monday)</b>	<b>Date</b>	<b>Monday</b>	<b>Activity</b>
1/16	1/16	Martin Luther King Holiday	
1/23	1/23	Introduction & Ex#1	In Lab exercise
1/30	1/30	Ex #2	In Lab exercise
2/6	2/6	Ex #2	In Lab exercise
2/13	2/13	Ex #4	In Lab exercise
2/20	2/20	Ex #7	In Lab exercise
2/27	2/27	Ex #8	In Lab exercise
3/5	3/5	Ex #11	In Lab exercise
3/12	<b>Spring Break</b>		
3/19	3/19	Ex #12	In Lab exercise
3/26	3/26	Ex #12	In Lab exercise
4/2	4/2	Ex #10	In Lab exercise
4/9	4/9	Principle Test	In Lab exercise
4/16	4/16	Presentation	In class
4/23	4/23	Review	In Lab exercise
4/30	4/30	<b>Final Exam</b>	

Syllabus is subject to change.