

**PHSC 1021 (combined with PHSC 1013=ACTS PHSC 1004)**  
**Physical Sciences Laboratory**

*SYLLABUS*

**Course Information for PHSC 1021**

**TEXT  
AND PERIPHERALS**

*Physical sciences Lab Manual*

**MEETING TIMES**

W 3:00 – 4:50 PM in McEver 124

**INSTRUCTOR**

Dr. Benjamin L. Davis

Office: Room 11 McEver Hall

Phone: (479) 968-0310

Email: bdavis47@atu.edu

**OFFICE HOURS**

T R 2:30 – 3:20 PM, or remotely on M F 10:00 AM – 1:00 PM and M 3:00 – 5:00 PM via Skype ID “bendavis007”

**Grading:**

Each laboratory assignment will be graded on a 20 point scale with the following breakdown:

Pre-lab Quiz	3 points*
Laboratory Completion	7 points
Postlab Quiz	10 points*
<b>TOTAL</b>	<b>20 points</b>

\*Contingent on attending and completing the lab

The lowest grade will be dropped.  
Since there are 12 labs, the total possible grade will be 220 (after dropping the lowest lab).

**ATU Catalog (<http://www.atu.edu/academics/catalog>):**

Co-requisite Courses: Co-requisite or Prerequisite: To be taken concurrent with or following completion of PHSC 1013.

Description: An introduction to laboratory experiences in the physical sciences, including physics, chemistry, earth sciences, and astronomy.

**Course Rationale and Objectives:**

This course is the laboratory associated with the physical sciences and an introduction to the fundamental laws and theories that govern the physical world that surrounds us. Upon completion of this course, the student should be able to:

1. Demonstrate understanding of scientific measurement and analysis
2. Use the scientific method to evaluate information and make quantitative predictions

3. Efficiently use critical thinking and problem solving skills to deduce information from the facts at hand

### **Pre and Post lab quizzes**

All the quizzes are accessible on blackboard in the appropriate folder. Your responsibility is to study the lab material before coming to the lab and take the pre-lab quiz. The pre-lab quiz is available a week before the lab, but it will become unavailable once the lab starts. Each post-lab quiz becomes available after the lab ends and stays available for 24 hours. You have only one chance to take the quiz.

### **Attendance and Participation:**

Attendance is REQUIRED. If you miss a lab your grade for that lab will be zero even if you take the quiz. Your participation points will be based on your attendance, willingness to participate and help other members of the group, completing the activities, and finally turning in the lab survey at the end of the lab.

### **Course Conduct:**

COME TO CLASS READY TO PAY ATTENTION AND WORK COLLABORATIVELY EVERYDAY!!! The Arkansas Tech University Department of Physical Sciences considers academic dishonesty, including cheating, plagiarism, and fabrication as defined in the *Arkansas Tech University Student Handbook*, to be a serious offense and the maximum punishments allowed will be pursued in all scenarios. This includes completing any homework assignments or quiz for another student.

**NOTE: *Missing an excessive amount of class will lead to receiving a grade of FE (failure for excessive absences) for this course. Per the ATU faculty handbook, students will be warned prior to the assignment of this grade.***

<b>Fall 2015 Schedule</b>		
<b>Order</b>	<b>Day</b>	<b>Lab</b>
<b>1</b>	<b>Sept 2</b>	<b>Plate Tectonics</b>
<b>2</b>	<b>Sept 9</b>	<b>Measurements</b>
<b>3</b>	<b>Sept 16</b>	<b>Graphical</b>
<b>4</b>	<b>Sept 23</b>	<b>Acceleration</b>
<b>5</b>	<b>Sept 30</b>	<b>Friction</b>
<b>6</b>	<b>Oct 7</b>	<b>Pendulum and Gravity</b>
<b>7</b>	<b>Oct 14</b>	<b>Volcanoes</b>
<b>8</b>	<b>Oct 21</b>	<b>Heat</b>
<b>9</b>	<b>Oct 28</b>	<b>Light and Optics</b>
<b>10</b>	<b>Nov 4</b>	<b>Spectroscopy</b>
<b>11</b>	<b>Nov 11</b>	<b>Radiation</b>
<b>12</b>	<b>Nov 18</b>	<b>Sugar Solutions</b>
<i>Nov 25-Nov 29 Thanksgiving Holidays No labs this week</i>		
	<b>Dec 2</b>	<i>Snow Day Make-up</i>
<b>Monday Nov 30<sup>th</sup> last day to drop with "W"</b>		
	<b>Dec 9</b>	<b>Reading Day</b>

# PHYS 2010

## Physics Laboratory I

### *SAFETY RULES AND PROCEDURES*

- 1. KNOW WHAT TO DO IN CASE OF AN EMERGENCY.** Observe the location of the fire extinguisher. Report all accidents, injuries, and close calls to the instructor immediately
- 2. PERFORM ALL EXPERIMENTS AS DIRECTED.** Do not do anything which is not part of an approved experimental procedure. Follow all instructions given by your lab instructor.
- 3. BE PROPERLY PREPARED TO DO THE EXPERIMENT.** Read all written procedures in advance and understand what you are going to do. Know the hazards before you perform the experiment.
- 4. IF INSTRUCTED TO DO SO, WEAR THE APPROPRIATE PROTECTIVE EQUIPMENT.** This may include eye protection and/or gloves.
- 5. ACT IN A RESPONSIBLE MANNER AT ALL TIMES.** No horseplay will be tolerated in the lab or experimental area.
- 6. ALWAYS WEAR APPROPRIATE CLOTHING TO THE LAB.** Tie back long hair to keep it away from moving objects.
- 7. SMOKING, EATING, AND DRINKING IN THE LAB OR EXPERIMENTAL AREA IS PROHIBITED AT ALL TIMES.**
- 8. FOLLOW ELECTRICAL AND LASTER SAFETY RULES AND DESCRIBED BY YOUR INSTRUCTOR.**

I, the undersigned, have received and read the syllabus and safety procedures and guidelines for this course.

Please sign and return to the instructor

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STUDENT'S PRINTED NAME

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DATE

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STUDENT'S SIGNATURE