Syllabus for PHYS 101L Laboratory

PS 114, PS 127

Be sure to download a copy of this syllabus and bring it with you to your lab orientation.

PHYS 101L Corequisite: PHYS 101. Topics: experimental measurements, statistics, tools. **You must have already completed or must currently be enrolled in PHYS 101 to enroll in this lab.**

Time:

Lab Instructor:

Lab Instructors office/office hours:

Lab Instructor's phone/email:

Lab Supervisor: Mr. Martin Hackworth, campus 4439**,** hackmart@physics.isu.edu

Note: This syllabus is the binding document for this course. Your instructor does not have the authority to waive any of the following requirements. Only the Lab Supervisor may grant exceptions to these policies and procedures.

MATERIALS: TI-30Xa scientific calculator (these are available for use in the lab), C-Thru ruler (M-100), protractor. The lab manual for this course is available on-line:

http://www.physics.isu.edu/~hackmart/phys101l.htm (101L)

GRADING: These labs will be graded on a point system. You may acquire points from the following sources:

1. QUIZZES - A short quiz will be given at the beginning of each lab. Questions will be selected from the lab of the previous week as well as the lab to be done the day the quiz is given. If you arrive late you will not be allowed extra time to complete the quiz nor will you be given time later to take the quiz.

2. LAB PERFORMANCE - Each week your lab instructor will evaluate your performance in lab, take an inventory of your lab materials and you will receive points based on this. If you arrive on time with a copy of the lab procedure for the week and all of the materials you are supposed to have, follow directions, and put forth a good effort, you should receive most of these points. If you come to lab unprepared, fail to read the instructions before asking for help, work in a group of three or more without explicit permission, miss lab, arrive late, leave early, fail to clean up after yourself, show up without a calculator, etc., or damage lab equipment you will receive very few, if any, of these points.

3. FINAL EXAMINATION – No final is given in PHYS 101L.

ATTENDANCE **-** Although attendance has no point value by itself it should be obvious that you cannot earn points if you do not attend lab. You should not commit yourself to anything that may interfere with the time allotted for this lab. If you arrive after the quiz has been given or leave before the procedure is complete you not earn full points. You will not be allowed to make up missed quizzes if you are late. *In extenuating circumstances your lab instructor may allow you to make up a missed lab by attending another section of lab the same week*. You should make arrangements with your lab instructor to make up a lab before the end of the week in which it is scheduled. Some form of written documentation may be required to substantiate the reason for your absence. You should consider the opportunity for credit lost if you fail to make up the lab by the end of the week. As there are many extra points built into the grading structure there will be no

opportunities for makeup quizzes or exams other than outlined above. Please don't ask about makeup exams.

You should attend only the lab that you have registered for. *All arrangements to switch labs must be made through the Registrar's office*. It is your responsibility to make sure that you are registered for the lab you are attending and are on the class roll for that lab.

Available Points: Quizzes are worth 10 points each, Lab Performance is worth 18 points per procedure.

Totals:	Quizzes	11 @ 10 points each = 110 points
	Lab Performance	10 @ 18 points each = 180 points
		290 points available

Final grades will be tentatively based upon the following scale:

"A" > 250 points
"B" > 210 points
"C" > 170 points
"D" > 130 points

Miscellaneous: PHYS labs are 1 credit hour courses. For each credit hour taken the standard amount of effort expected is three hours. So three hours per week is the amount of effort expected for this course. For a 16-week semester you should *expect* to spend 48 hours on this course. What you will probably spend is:

Orientation:	about 1½ hours
Ten labs	less than 30 hours
Total	**31.5 hours**

A well-prepared student should usually not need the full time allotted for the lab (2.5 hours). The amount of time required in this lab is well below what is normally expected for the credit hours associated with this course. The extra time should be more than enough for you to read over the procedures before coming to lab, and to prepare you for the quizzes and lab final.

Read through the experiments in the lab manual before coming to lab. ***Bring your textbook*** (for use as a reference) ***and a scientific calculator with you to each lab***. Be as thorough as possible in examining the physical principles involved with the experiment being performed. You will enjoy this course and be more successful in it if you come to lab each week having prepared for the experiment by reading the procedure.

Every effort has been made to construct a laboratory that is relevant to the lecture course. This does not mean, however, that the lab is coordinated with the lecture. It is simply not possible to do this. That is why labs and lectures are separate courses. The laboratory exercises are reasonably self-explanatory and not unduly difficult. The lab is designed to give you a perspective that is slightly *different* from that given in the lecture to aid in your overall comprehension of the physical world.

The equipment used in these laboratories is expensive and difficult to replace. As aspiring professionals you are expected to conduct yourselves with an appropriate degree of decorum in the lab. Any abuse or misuse of laboratory equipment may result in your suspension from this course and a grade of "F". If you damage lab equipment we will send you a bill. Some of the experiments and exercises you will be performing this semester make use of microcomputers. You are welcome to use the any of the software on these machines whenever you are in the lab. You are not permitted to load files onto these machines or to copy software from them.

If you have any problem with this course you should first discuss it with your lab instructor. Lab instructors are here to help. You will find that they are generally willing to assist any way that they can. In the event that you encounter a problem that you are unable to resolve with your lab instructor, you may feel free to contact me at my office during office hours, or by email. Please be aware that I expect you to contact your lab instructor first. Generally I will not issues of grading, policy or procedure with you until you have spoken with your lab instructor about it. An exception will be made if you have an issue with your lab instructor that you feel the need to discuss in confidence. Please contact me via email and I will make an appointment to see you.

Martin Hackworth, Physics Laboratory Supervisor