



The University of Texas at El Paso
<http://science.utep.edu/physics/>

Syllabus Electricity

Physics Lab



Courses:

PHYS 1404: General Physics II

PHYS 2421: Introduction to ElectroMagnetics

Generals:

Location:

Physical Sciences Building (PSCI). Rooms 318 & 319.

Laboratory Coordinator:

Karla Carmona Miranda, M.S. Email: kcarmona@utep.edu

Overview:

This lab is an integral part of the physics course. Concurrent enrollment in a lecture section of physics is required and mandatory. For students enrolled in PHYS 2421 enrollment both a workshop and a lecture section is required. Each lab section meets once a week for 1 hour and 50 minutes. The credit of this course will be reflected in the final grade of your lecture's grade.

This portion of your physics course, will cover a cherry pick concepts from your lecture. The labs start meeting from the first day of classes. The selection of concepts are based on the ability of the problems to be a live action representation of your textbook and homework problems. Our goal is for you to gather and practice some solving problems skills, team work abilities and a professional presentation of your work.

The lab will have 10 different lab problems to solve, each one per week. The solving problems and team work abilities will be evaluated upon results deliver at the end of the lab. The presentation of your work will be assess with a report.

Lab Manual:

This summer the lab manual will be on Blackboard (Bb). Your Bb course can be accessed via your laptop or mobile device, and provides you with a place to find activities to be ready for the lab work, the lab instructions to perform the experiments and a place to submit your lab report. Unlike a traditional paper lab manual or notebook, Bb features automatic date and time stamps on all modules and activities, al so can be updated by your instructors to provide you with comments and your grades will be stored there. Check your account regularly!

The lab will have 10 different lab problems to solve, each one per session.

Technology Checklist:

As you prepare to take an online course at UTEP, we want to share with you some basic information about technology to make this a successful experience. Having your computer requirements checked and all software up to date is essential to access course content. Please take some time to read through this page and ensure you have the information you need to get successfully started.

Supported Browsers

For a PC: FireFox, Internet Explorer (Do NOT use IE7), and Chrome

For a Mac: Safari, Firefox, and Chrome

Browser performance hints include:

1. Clear browser cache
2. Allow pop-ups

Check Your Java

1. Go to <http://java.com>
2. Click on "Do I Have Java?"
3. Click on "Verify Java Version."
4. Update Java if needed.

In addition to having your web browser tested. You may also need additional browser plug-ins to view some content that your instructor may share on the learning management system.

Common plug-ins include:

Adobe Reader

Flash Player

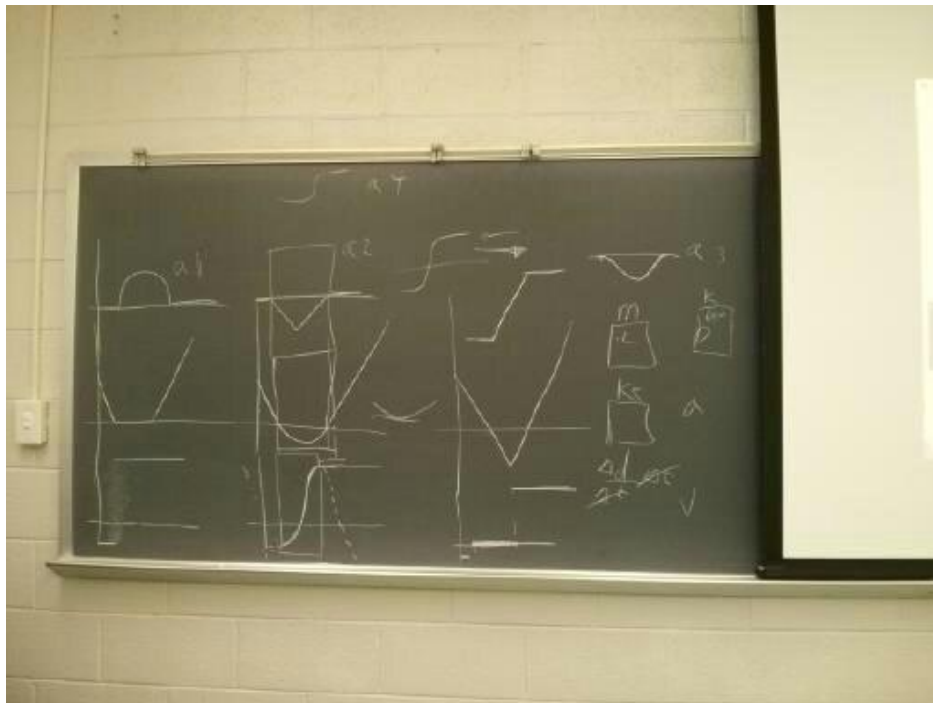
Windows Media Player

QuickTime

Additional Software

When creating documents, slide presentations, spreadsheets, etc., you must use Microsoft Office or a compatible program (see [10 Free MS Word Alternatives](#)). The UTEP Technology Support Services (3rd floor, UTEP Library) can also provide you with any applications, compatibility packs, patches, and updates you may need.

Assignments Description



Grading Scale:

[Pre-labs- 20%, In Lab participation - 20%, Lab reports - 60%]

Each pre-lab will be graded on a scale from 0 to 20. Each lab your participation will be notice by your lab Instructor and be graded on a scale from 0 to 20. Each lab report will be graded on a scale from 0 to 60. The grade for each lab will be calculated by adding all three individual grades (for a base maximum of 100 points per lab session). The final lab grade will be calculated by averaging the 9 highest lab grades, that score will be send to your lecturer that will convert that grade in the maximum number of points according to the lecture syllabus.

You will be allow to do one lab make up. This means to do the lab in a day and/or time different from the one you enroll in. You can only do that within the same week the lab is been teach. No paperwork is necessary. Just email your lab instructor the day and time you attended the lab along with the instructor's name present in the room.

Pre-lab Assignment (20 points each lab. Due before lab):

Each pre-lab assignment covers the main theoretical concepts you will use in the lab session. It is therefore important to complete the pre-lab before the lab begins, and do not to leave it to the last minute. If something was not clear in the pre-lab and you have questions, email your lab instructor or come to the Lab Coordinator's office (PSCI 317). If you still have uncertainties about the pre-lab, please ask them at the beginning of the relevant lab, before beginning work on the lab. In the prelab you have videos, and a set of virtual cards with the concepts and the definitions that will help you be ready. The grade will be earn once you complete the quiz. You have unlimited time and three attempts to earn the 20 points.

Lab Work (20 points each lab):

Attendance and participation are very important for the laboratory work. Every student must attend and actively participate in every laboratory session. Each team member should record the data and answer the questions individually. It is highly recommended that you show your results to the lab instructor before you leave the lab. It is also recommended that you have a hard copy of your experimental data, in order to elaborate a professional lab report after the lab session. A lack of active involvement with the lab activities will result in a sanction deducting points from your in lab work grade.

Students will perform the experiments in a group, the participation and active involvement in a team work set up is important. The lab worksheet generated (detailing your group's procedures, collected data, and conclusions) will be used as a base to do the lab report. So is important that each student use their own worksheet or a lab notebook to collect their own data. Students must use their own words to answer the questions, since these responses can be use in the report.

Lab Reports (60 points each lab. Due at the beginning of the next lab):

These are completed individually. This report will contain information about the personal experience in the lab for each team member. The report must content:

- Title
- Small introduction to the subject
- Materials Used
- Set up (pictures and sketches)
- General overview of the procedure
- Data and analysis of it
- Conclusion
- Personal learning experience

Late submission policy:

Grades will be given at your instructor's discretion. Please note that the lab report and lab work for a missed lab will not be accepted for grading. There are no late submissions for pre-labs.

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General Advice to Succeed In the Lab



Individual and teamwork skills:

This lab will help you sharpen your teamwork skills. Group discussions during the laboratory are highly encouraged. However, each member of the group is required to write down his/her own measurements, perform his/her own calculations, and write an individual laboratory report. Because independent thinking and independent work are also important skills to develop, you are required to be active in all the laboratory sessions and to prepare your own lab reports.

Advice:

You are strongly encouraged to ask questions while performing the labs. We hope to create an atmosphere that is conducive to learning and where no question is a "stupid question". Often several students will have the same or a similar question, so feel free to listen to the instructor when he/she is answering someone else's question. You may find that you can save time this way instead of waiting for the instructor to become available on a busy day. Occasionally, the scheduled lab experiment will cover material that has not yet been covered in the lecture. The lab instructors will make an effort in their introductory remarks to compensate for such mismatches, but in these cases you will find that it is especially important to read and understand the pre-lab and lab experiment before you come to the lab, and to ask for clarification of any questions you have. You will also find your course textbook to be a valuable aid under such circumstances, and you are encouraged to use it to help you understand the material presented in the lab.

Resolving Grading Disputes:

If you feel that an assignment has been graded unfairly, you should first consult with your lab instructor. If you are still unsatisfied, you may bring the matter to the attention of the lab coordinator. We are aware that we all make mistakes, and we can definitely review a questionable assessment. However, please keep in mind that while it may happen that we find your score was indeed too low, we may also find that we missed a mistake and that your score was too high.

Required and recommended materials:

The material for this course will be in blackboard, also space to collect data will be posted there, so is very important that you bring your own laptop or printout the worksheet for the lab.

To do research for answering the prelab activities is encourage that you use the search engines in Google, YouTube and Wikipedia, also is very useful use the textbook for the lecture or any physics book that you can find in the library.

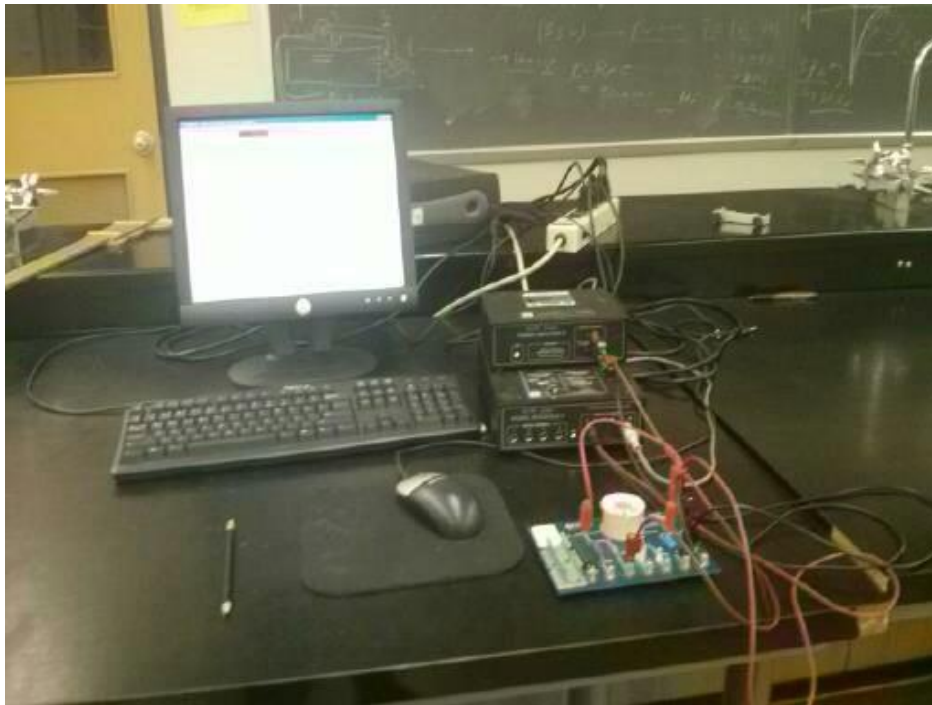
Communicating Effectively:

Learning online is not a spectator sport. It is everyone's responsibility to participate as fully as they can so everyone can get the most from the experience. Here are some simple tips to follow to ensure your participation and engagement in the learning process:

- **Ask questions:** If you don't know the answer, someone else will. The discussion board is the area for asking questions related to content OR any problems, related to the class, you are having. Make sure that you have clearly indicated the subject of your message.

- **Reach out to others:** Offer a fact, article, link or other item that can help others learn something you can share.
- **Be appropriate:** The online classroom is not the place for insulting or insensitive comments, attacks, or venting. Inappropriate behavior will usually subject to disciplinary action, as well.
- **Be diplomatic:** When sending messages on emotionally charged topics, make sure you write the message and then walk away for at least an hour before rereading the message and then sending it. Re-reading emotionally charged messages ensures that they are constructive instead of destructive. Think of the person at the other end.
- **Stay focused:** Stay on topic to increase the efficiency of your learning.

General Policies



Safety Policies:

1. Positively NO drinking or eating of any kind of foods is allowed for ANYBODY in the laboratory.
2. COMPUTER POLICY: The PASCO software that we use in this laboratory can be very sensitive to the way in which the Windows operating system is set up. Because of this, please DO NOT make any changes to any of the Windows settings, no matter how inconsequential the change may appear to be. Please use the Windows settings in their current configuration only. Please DO NOT load any new software on to the computers in the labs. Please also DO NOT delete any files from the laboratory computers.
3. LAB STATION POLICY: At the beginning of each lab, you and your lab group are responsible for turning on the lab equipment and turning it off at the end of the lab. At the end of each lab, you are responsible

for leaving the equipment at your work station in the same condition in which you found it. This means that you will leave all instruments, and the computer, in the OFF mode. If anything has been broken or damaged during the lab period, please let the lab instructor know about it, so that it may be fixed or replaced before the next lab group arrives.

Statement for (N)etiquette:

When communicating electronically, many of the feelings or impressions that are transmitted via body language in face-to-face communications are lost. Consequently, interpreting emotions and innuendos is much more difficult. Only what is written, or drawn, carries the message. Often, excitement can be misinterpreted as anger or insult. It is important that we all keep this in mind as we communicate. Words in print may seem harmless, but they could emotionally injure us when working at a distance. Hence, it is vitally important that we are conscious of how we communicate while working at a distance.

For example, avoid the use of caps in your electronic messages, as wording in caps comes across as shouting. The standard practice ("Netiquette") for participation in networked discussion requires that all participation be focused on the topic at hand, not become personalized, and be substantive in nature. (Translation: you may certainly disagree with others, but you must do so respectfully; you may express strong beliefs or emotions, but you may not get so carried away that you lose all perspective on the course itself.)

Please observe the following:

- You are required to check the Blackboard course shell daily for messages, updates and assignments.
- Respect and courtesy must be provided to fellow classmates and the instructor at all times, in all contexts. No harassment or inappropriate postings will be tolerated.
- Be professional and careful in what you say about others.
- When reacting to someone else's message, address and focus on the ideas, not the person who posted them.
- Be careful when using sarcasm and humor. Without face-to-face communications your joke may be viewed as criticism.

Communication Statement:

I will be checking in on Blackboard every weekday mornings. Please allow me 24 hours to respond to discussion board postings and/or e-mail. If you send me a message an hour before an assignment is due, I will not be able to respond or help you.

Statement for Academic Integrity:

The International Center for Academic Integrity, comprised of a consortium of universities worldwide, defines academic integrity as "a commitment to fundamental values: honesty, trust, fairness, respect, and responsibility. From these values flow principles of behavior that enable academic communities to translate ideals into action." As they relate to students, these values can be defined as follows:

Honesty: “adhering to standards of truthfulness and integrity”

Trust: participating in “an environment of confidence”

Fairness: abiding by the “standards, practices, and procedures” outlined by your instructors and institution

Respect: “encouraging a wide range of opinions and ideas”

Responsibility: assuming personal accountability and accepting sanctions in cases of misconduct.

Students are responsible for adhering to the above standards in all academic activity and refraining from all forms of academic dishonesty. According to the **UTEP Handbook of Operating Procedures**, academic dishonesty includes committing (or attempting to commit) the following:

- **Plagiarism** – taking credit for work that is not your own (e.g., copying and pasting from the internet, failing to cite sources of information, failing to attribute direct quotes to their original author, or submitting your work from another course without prior permission).
- **Cheating** – This includes copying another student’s work during an exam; using notes, books, or electronic devices during an exam without prior permission; taking an exam for another student; and communicating with or helping another student during an exam.
- **Collusion** – any collaboration with another student without the permission of the instructor.

General University Policies:

1. The Academic Integrity Policy is cited at <http://academics.utep.edu/Default.aspx?tabid=23785>
2. Disability Statement: If you have a disability and need classroom accommodations, please contact the Center for Accommodations and Support Services (CASS) by phone at 747-5148, by email at tocass@utep.edu, or by visiting their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass. It is important to talk to the lab coordinator once your accommodations are granted and before a problem is presented.
3. Military Statement: If you are a military student with the potential of being called to military service and/or training during the course of the semester, you are encouraged to contact the laboratory coordinator as soon as you are called.
4. In all other matters not discussed above, The University of Texas at El Paso’s university-wide policy supersedes all other laboratory policies.