General Physics II (PHYS 1404-004)  
Spring 2020

Instructor  
Maik Reddiger  
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Office Hours  
Mo We Fr 10:00–11:00 am, and by appointment in CHEM 10

Lecture Schedule  
Tu Th 2:00–3:20 pm in SC 234

Objectives  
The primary objective of this course is to provide you with a working knowledge of important laws and techniques of elementary, algebra-based electromagnetic theory in order to ease your understanding of related phenomena in your surroundings as well as devices, where those laws apply. The relevant knowledge and techniques will be presented in the lecture and then applied in the homework problems and the laboratory sections. At the end of the course, elementary phenomena and concepts of special relativity and quantum physics will be outlined with the goal of acquainting you with some fundamental aspects of modern physics. Successful completion of the course will also prepare you for a deeper study of the topics covered.

Textbook  
Your lecture notes are the main resource for this course. As a supplementary text, you may consult


The latest version is available as a pdf copy free of charge:

https://openstax.org/details/books/College-Physics

Please note that you do not need to buy a hard copy of the book. If you are having trouble understanding something after going through your notes and the corresponding section in the book (Chap. 18 and higher), please write a brief email to me or come to the office hours in due time!

Homework  
Homework is assigned on a weekly basis through the learning website Mastering Physics. In order to be able to use it, please register as a student on

https://www.pearson.com/mastering

and purchase/enter your access code (You do not need to buy the book!). In order to ease identification for grading, please use your full name as user name. The course ID is reddiger15013. After successful registration, you will be able to access assignments using your login. You are welcome to collaborate on homework problems, but you should be able to arrive at the solution by yourself. Being able to solve those on your own is essential for passing the exams. All homework is graded.
Note: Learning physics can be quite challenging. If you struggle, you should view it as a sign that you are actually learning something, not as a sign that you are ‘not cut out for it’. Reviewing your lecture notes, doing the homework as well as the labs, studying for exams and asking questions is the path to success.

Laboratory

The laboratory sections are an integral part of this course. You ought to sign up for them separately and purchase the 1404 Lab Manual. Please bring your lab manual to every lab section (including the first!), or you may not be allowed to participate. There is a separate lab grade.

Note: Participating in the lab sections is mandatory. If you fail the lab, you fail the class. If you cannot attend a lab due to an emergency, please contact Dr. West (keith.h.west@ttu.edu) ASAP, so he can assign you to a different section in that week. Please also consult the lab syllabus.

Exams

There will be two in-class midterm exams (to be announced) and one comprehensive final exam (4:30 pm on 05/08/20). Exams contain both conceptual and quantitative questions. If you miss an exam without having an acceptable excuse, you get zero points on it. Please provide written evidence for your excuse, and contact me regarding possible make-up exams.

Grading

Your final grade is computed from the individual grades (each on a 100 point scale) in accordance with the following scheme:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>30 %</td>
</tr>
<tr>
<td>Lab grade</td>
<td>25 %</td>
</tr>
<tr>
<td>Midterm exam (each)</td>
<td>12.5 %</td>
</tr>
<tr>
<td>Final exam</td>
<td>20 %</td>
</tr>
</tbody>
</table>

If you fail the lab (i.e. your lab grade is below 60), you fail the course!

Policies

Drop Policy

The last day to drop this course without academic penalty is Jan. 31 2020. After April 22 2020, you must complete this course for a grade (OP 34.05).

Attendance

Please be on time for the lecture as well as the labs. Please allow for sufficient time to put your signature next to your name on the sign-in sheet before the class starts. You are expected to attend all lectures and labs. The sign-in sheet is used in order to keep track of your absences, since, pursuant to OP 34.04, “excessive absences constitute cause for dropping a student from class.” If something interferes with your ability to attend classes (on time), please tell me (in advance if possible). If you are late, please sign in after class in order to minimize disturbance.
CLASS ROOM

You may not eat within the class room. You are not allowed to use electronic devices (cellphones, tablets, etc.) during lecture time without my explicit permission. If you expect an important call, please say so in advance (if possible) and leave the room for your call, causing as little disturbance as possible. Distracting others through noise or other inappropriate actions will not be tolerated and may lead to temporary or permanent exclusion from class. These policies are based on “the belief that the university has particular obligations to the able student.”

MISCONDUCT

Academic misconduct includes cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, violations of published professional ethics/standards, and any act or attempted act designed to give unfair academic advantage to oneself or another student. Additional information about academic misconduct is available in the Texas Tech University Handbook in Part II, section B of the Community Policies section in the Student Handbook. (OP 34.12)

Academic misconduct - in particular cheating on tests and letting someone else sign in for you - will be reported to the Office of Student Conduct and appropriate action will be taken (it won’t be pretty).

ADA

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor’s office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in West Hall or call 806.742.2405.

HOLY DAYS

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. (OP 34.19)

Should this apply to you, please make your intention known to me in writing ASAP.

Feedback

If there is something you really like, you would like to see implemented, or that is bothering you about the course, please do not hesitate to tell me. If you would like to do this anonymously, you may write a note addressed to me and hand it to the staff in CHEM 104, so they can put it into my mail box. Thank you!
Texas Tech University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from gender and/or sex discrimination of any kind. Sexual assault, discrimination, harassment, and other Title IX violations are not tolerated by the University. Report any incidents to the Office for Student Rights & Resolution, (806)-742-SAFE (7233) or file a report online at titleix.ttu.edu/students. Faculty and staff members at TTU are committed to connecting you to resources on campus. Some of these available resources are:

- **TTU Student Counseling Center**
  Phone: 806-742-3674
  Website: [https://www.depts.ttu.edu/scc](https://www.depts.ttu.edu/scc)
  (Provides confidential support on campus.)

- **TTU 24-hour Crisis Helpline**
  Phone: 806-742-5555
  (Assists students who are experiencing a mental health or interpersonal violence crisis. If you call the helpline, you will speak with a mental health counselor.)

- **Voice of Hope Lubbock Rape Crisis Center**
  Phone: 806-763-7273
  Website: [voiceofhopelubbock.org](http://voiceofhopelubbock.org)
  (24-hour hotline that provides support for survivors of sexual violence.)

- **The Risk, Intervention, Safety and Education (RISE) Office**
  Phone: 806-742-2110
  Website: [https://www.depts.ttu.edu/RISE/](https://www.depts.ttu.edu/RISE/)
  (Provides a range of resources and support options focused on prevention education and student wellness.)

- **Texas Tech Police Department**
  Phone: 806-742-3931
  Website: [http://www.depts.ttu.edu/ttpd/](http://www.depts.ttu.edu/ttpd/)
  (To report criminal activity that occurs on or near Texas Tech campus.)