

PHY 3323 Electromagnetism 1
(Fall 2017: Class Number 14433, Section 3431, 3 credits)

Tentative Syllabus (Version of 20 August 2018)

<http://www.phys.ufl.edu/~meisel/PHY3323-Fall-2018.html>

Instructor:

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Office Hours: posted online, <http://www.phys.ufl.edu/~meisel/schedule.htm>, and by appointment.

Email Correspondence with Instructor:

Professor Meisel will attempt to respond, within 24 hours, to email (**from UF email accounts**) if the message contains the name of the student. **Email will only be sent to UF Email addresses. Plus, avoid “phishing” scams... I will not provide you with clickable links in emails that I send.**

Prerequisites:

PHY 2049 or PHY 2061 or the equivalent; MAP 2302 or the equivalent.

Meeting Times and Place:

Mondays, Wednesdays, Fridays: 8th period (3:00 pm – 3:50 pm, 15:00 hrs - 15:50 hrs) in NPB 1220. Students are expected to attend the lecture, quiz, and test sessions.

Textbook:

The “official” textbook, which is required, is *Introduction to Electrodynamics, 4th Edition*, (Cambridge University Press, 4th edition) by D. J. Griffiths. In the recent past, I used the 3rd edition. Students who wish to avoid purchasing the 4th edition may use the 3rd edition, if and only if the copy is legitimately and legally sold for use in North America.

Posting:

Information concerning the course, including important dates and an “*in vivo*” schedule will be posted on the Course Webpage, see <http://www.phys.ufl.edu/~meisel/PHY3323-Fall-2018.html>.

Subject and Focus of the Course:

This course, “EM1”, covers the “statics” part of electrodynamics, which is describes in the first six chapters of the textbook. Next semester, “EM2” covers the “dynamics” in Chapter 7 and beyond. Students entering this course have a wide variety of backgrounds. Although some of the material may seem redundant, do not be fooled or lulled into a false sense of intellectual security. The course will attempt to be self-contained and will lay the foundations of the mathematics necessary for understanding the material. If you find this material boring, please understand that its coverage is necessary for those students whose background may not be as comprehensive as your own. If at any time you are truly bored, please talk to the Instructor so suitable

arrangements/adjustments or assign more sophisticated problems or projects for your private consideration.

The course is constructed and aimed for class participation. The instructor will assume that you are reading the book and working the examples and relevant problems. You are expected to maintain the pace of the course, and the quizzes and examinations are designed to help guide you in this process. Cramming before an examination will not work! Like a world-class musician or athlete, you must train EVERYDAY. Of course, you do not want to burn-out, but you must daily train to think “like a photon”.

Attendance in class is definitely expected since material outside the textbook may be presented. **YOU ARE RESPONSIBLE FOR ALL MATERIAL COVERED IN THE TEXT AND IN CLASS. ALL THIS MATERIAL IS RELEVANT FOR QUIZZES AND EXAMINATIONS**, unless otherwise stated.

The ultimate goal of the course is for the students to learn more details about electrodynamics and to be able to use the machinery of mathematics to solve general problems associated with the subject. Highly specialized problems are the subject of advanced courses in physics, chemistry, engineering, biology, and other disciplines. To realize this goal, students will not be allowed to use textbooks or notes for the quizzes or the examinations. Any specialized details, formulas or physical constant values will be provided as needed.

A final word about successful completion of the course: there is no secret. If you attend class (and participate), read the textbook, and work the problems and examples, then you will learn the material. When in doubt, **WORK MORE PROBLEMS!** If you exhaust all problems from the textbook, see the instructor who will be happy to supply more. Remember: the process should be fun! If in itself it is not fun and challenging, then it should be some hoop that you are jumping so you may proceed with some fun stuff. So, you should always stay motivated to learn the material.

If at any time there is a question in your mind about anything, please do not hesitate to talk to the instructor. See him during office hours or immediately before/after class.

Attendance:

Attendance in class is definitely expected since material outside the textbook will be presented. You are responsible for all material covered in the text and in class. All of this material is relevant for any graded exercise, unless otherwise stated.

General Education:

This course is designated “P” for Physical Sciences Requirement of the General Education Requirement at the University of Florida. The significance of this designation and the associated details, including the Student Learning Outcomes (SLOs) and their connection to the Academic Learning Compacts (ALCs), are discussed at the official UF General Education Webpage, see <http://gened.aa.ufl.edu>. Assessment questions are asked during the Spring semester of this course and not during the Fall semester.

Grading:

Graded material will consist of 6 quizzes of 30 points each, 60 points collected with the “in-class device” (where a maximum of 50 points will count toward the final course grade), one Final Exam, which is comprehensive, of 200 points, and potentially some extra credit assignments (these opportunities will be described during the course). The letter grade assignment based on percentage of points earned is given in the next paragraph and any potential adjustment of this scale will be discussed in class. Finally, the UF grading policies are posted at: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Summary of Points Available

Quizzes (6 of 6, 30 points/each)	180 points	41.9%
“in-class” points (50 of 60 points)	50 points	11.6%
Final Exam (1 of 1)	200 points	46.5%

Total	430 points	100.0%

Final Course Grade Scale

A	85% - 100%
A-	80% - 84.999999%
B+	75% - 79.999999%
B	70% - 74.999999%
B-	65% - 69.999999%
C+	60% - 64.999999%
C	55% - 59.999999%
C-	50% - 54.999999%
D+	45% - 49.999999%
D	40% - 44.999999%
D-	35% - 39.999999%
E	0% - 34.999999%

Make-Up of Graded Material:

Consistent with university policies described elsewhere ([here](#)), students will be allowed to make-up graded material. In most circumstances, the reason for the make-up will need to be documented by a note typically from a medical doctor, an attorney, or a UF official. Notes from family members are not acceptable. When possible, the student should inform the Instructor in advance of absences from graded assignments.

Academic Honesty:

Each student is expected to generate graded work by an individual and original effort. It is understood that some students benefit from “group study”. However, all quizzes, tests, and the final examination will be individual efforts, using only the materials authorized by the Instructor. Any violation of this policy will be treated according to UF policy (e.g. usually a zero grade is given on the assignment). Please review the University Policies on Academic Honesty, and helpful links are: <http://www.dso.ufl.edu/sccr/> and <http://www.dso.ufl.edu/studenthandbook/studentrights.php>.

“Academic honesty and integrity are fundamental values of the University. Students commit to holding themselves and their peers to the high standard of honor required by the Student Honor Code. Any Student who becomes aware of a violation of the Student Honor Code is encouraged to report the violation to the appropriate University Official.”

Accommodations and Advising:

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible.

Advising and Counseling:

Due to the nature of the environment at the university, it is not uncommon for students to experience stressful situations, and “study harder” sometimes does not seem to work. If you find yourself in this situation, you are encouraged to seek confidential counseling, see: <http://www.counseling.ufl.edu/cwc/>.

Incomplete Policy:

A grade of incomplete is typically given to students who endure a situation in which they are incapable of completing the coursework. The I-grade is not to be given to students who are simply dissatisfied with their performance in the course. If you find you are in a situation that might qualify you for an I-grade in this course and you want to pursue this potential option, then you must contact me immediately and be sure to have the necessary documentation from a medical doctor or an attorney. Again, letters from family members are not acceptable. A letter of understanding indicating when and how the incomplete grade will be made up will eventually be drafted and signed by the student and the Instructor. A PDF of the policy is posted at: <http://www.phys.ufl.edu/downloads/grade政策.pdf>.

Final Exam and Special Notes about the Syllabus:

Please note that the dates for all graded materials, except the Final Exam, are TENTATIVE. The schedule will be finalized during the course and will be announced in class and posted to the “*in vivo*” schedule, see <http://www.phys.ufl.edu/~meisel/PHY3323-Fall-2018.html>. The Final Exam in **NOT** tentative and is: **Monday, 10 December 2018, 10:00 to 12:00 hrs (Noon), in NPB 1220 (classroom for course). Final Exam covers material from the entire course.**

“in-class” Points:

During the class periods, the “in-class device” or other suitable mechanism described by the Instructor will be used to monitor the understanding of the topics being discussed. This approach may be used at any time during the class period. In some instances, the responses will not be graded as correct or incorrect, so the point is awarded for participation. For the other cases, the exercise will be graded in either a “2-1” (2 points for the correct response and 1 point for an incorrect response) or “5-2” (5 points for the correct response and 2 points for an incorrect response) formats. Alternative formats are also possible, such as points are award for only correct responses. In most instances, these in-class exercises (which are NOT quizzes or tests) will be open book and “chat with a neighbor”; however, electronic devices linked to the web and calculators will NOT be permitted. The specific rules covering each exercise will be explained when the problem is presented.

Comments on Materials Allowed for Quizzes, Tests, and Examinations:

Calculators are not to be used for graded material during this course. A formula sheet will be provided as needed and will be the same for each student. For quizzes and the final exam, this sheet will be distributed.

Comments on Knowing Your Grades:

It is expected that graded material will be returned to each student at the start of the first class period after which it was generated. Students should NOT mark on the graded sheets. The material and rubric will be reviewed in lecture. After the review, if a student has any question about the grading of the work, it should be returned to the Instructor. In a timely manner, the student should meet with the professor to review the grading. If a student decides that the work is correctly graded, then the student may keep the graded work. At that point, the student yields any opportunity to debate how the work was graded. The student should keep the hardcopy until the end of the semester in case there is any dispute about the total number of points earned during the course. The E-Learning system is used to electronically post the grades, <http://elearning.ufl.edu/>. If you have any questions about your points on any material or for the course, please contact the Instructor.

General Classroom Behavior:

The reading of newspapers, the working of puzzles, and the use of electronic devices such as cell phones, laptops, and tablets are not permitted unless approved for use to make classroom accommodations. Please mute your personal electronic device, and if you need to attend to an emergency, please quietly exit the classroom to handle the text message or phone call in the hallway or atrium.

Online Course Evaluation Process:

“Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.”

--See http://www.syllabus.ufl.edu/media/syllabusufledu/syllabi_policy_20180726.pdf.