

**PHY 3323 Electromagnetism 1 [Fall 2022] (3 credits)**  
**Lecture Hall: NPB 1002 Class (Section) Number: 17847 (3431)**

Tentative Syllabus (version of 18 October 2022)

<http://www.phys.ufl.edu/~meisel/PHY3323-Fall-2022.html>

**Subject and Focus of the Course (I):** This course, “EM1”, covers the “statics” part of electrodynamics, which is described 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.

**Inclusion, Diversity, and Equity:** My intention is to provide each student with a safe, diverse, and inclusive atmosphere that affords a personalized opportunity to engage the material being presented. As the protocols for dealing with COVID conditions evolve, I will attempt to present the course material and graded assignments in a manner sympathetic to these conditions, while also being respectful of diversity of gender, sexuality, ethnicity, race, culture, socioeconomic status, age, and accommodations. To achieve this environment, I ask for suggestions and feedback from all students, as each perspective is important to me, and I will do my best to make adjustments that are needed.

**Instructor:** Mark W. Meisel (*he/him*), Department of Physics, University of Florida

**Office:** NPB 2358, Tel: 392-8867; **Lab:** NPB B133, Tel: 392-9147; **Email:** meisel@ufl.edu

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

**Note for COVID era:** In-person meetings are typically by appointment that must be requested so as to limit the number of students who are trying to visit in a given window as my office can only accommodate one additional person at a time. Drop-in visits are welcome, but please understand that someone may have booked an appointment with me. In addition, please understand for safety reasons, appropriate face-coverings may be required to meet with me in my office or in my lab. Generally speaking, there is an expectation that appropriate face-coverings are always welcome.

**Email Correspondence with Instructor:** The Instructor will attempt to respond, within nominally 24 hours of regular business days, to email within the UF e-Learning system (ELS Canvas system) or from UF email accounts if the message contains the name of the student **AND the subject line starts with PHY3323**.

**Email will not be sent to email addresses outside the UF-domain (ufl.edu).**

**Prerequisite/Corequisite:** Prerequisite – PHY 2049 or PHY 2061, or the equivalent; MAP 2302 or the equivalent. *If you do not meet these requisites, then you will need permission of the Instructor to follow this course and you must consult with the Instructor before 30 August 2022, which is the deadline for the drop/add period for this semester.*

**General Education:** This course is part of the “Physical Science” General Education Requirement and is EEP (Employee Education Program) eligible.

**Textbook (required):** The textbook, which is required, is **Introduction to Electrodynamics (4th Edition)** by [David J. Griffiths](#). Please note there are several printings of the 4th Edition, with Pearson in 2013 and Cambridge University Press in 2017. The author has compiled **Errata lists** that you can access by visiting his homepage and scrolling to find links to this information.

**Meeting Times and Location:** Mondays, Wednesdays, and Fridays: 8th period (3:00 pm – 3:50 pm) (15:00 hrs to 15:50 hrs) in NPB 1002 (sometimes called the small auditorium for the building). If Zoom meetings are needed, the details will be announced in advance of the class meeting using Zoom or recorded lectures.

**Posting:** Materials and information concerning the course, including important announcements and dates, along with an “*in vivo*” schedule, will be posted on the Course Webpage within the UF ELS Canvas system.

**Attendance:** **Students are expected to attend lectures** since material outside the textbook will be presented. Unless otherwise stated, all materials covered in the text and in class are relevant for any graded exercise. The established [UF Attendance Policies](#) will be followed.

**UF policy for “In-Class Recording”:** “Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.”

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.”

**Subject and Focus of the Course (II):** An exciting aspect of this course is that we will be discussing a “classical” field theory which describes electromagnetic interactions that are an integral part of our everyday world. The description needs a “language” and multidimensional vector calculus will be used. One challenge will be for you to develop and refine an “image” of the phenomena in your mind.

In other words, one 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.

#### **Graded Material and Grading Policy:**

**Quizzes (Q) and In-Class (IC) Exercises:** Quizzes and In-Class (IC) Exercises will be assigned on a regular basis. Students are expected to work on the problems and submit their work individually unless otherwise stated. Work must be complete, concise, and clear for full credit. Each assignment will have a specified due date and time. **Assignments submitted late will not be graded.**

**Final Exam:** The Final Exam is NOT tentative and is set by the Registrar on Friday, 16 December 2022, 10:00 am – Noon (10:00 hrs to 12:00 hrs). All Fall 2022 Final Exam and course activities must end by 5:00 pm (17:00 hrs) on Friday, 16 December 2021.

Additional details about the UF grading policies can be found at [found at:  
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>](https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx)

Summary		Final Course Grade Scale	
In-Class (IC) Exercises	15%	A	85% - 100%
Quizzes (Q)	40%	A-	80% - 84.9%
Final Exam (FE)	45%	B+	75% - 79.9%
		B	70% - 74.9%
		B-	65% - 69.9%
Total	100%	C+	60% - 64.9%
		C	55% - 59.9%
		C-	50% - 54.9%
		D+	45% - 49.9%
		D	40% - 44.9%
		D-	35% - 39.9%
		E	0% - 34.9%

**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 or delays in completing graded assignments. **Note for COVID era:** if you sense you may have symptoms related to the COVID, please do not come to class, please follow the protocols being followed on campus (<https://coronavirus.ufl.edu/>), and as soon as reasonably possible, please contact the Instructor. Please note that if you are not allowed on campus, then please do not come to class.

**Academic Honesty:** Each student is expected to generate graded work by an individual and original effort and (e.g. usually a zero grade is given on the assignment). Please review the University Policies on Academic Honesty, and links are <https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/> and <http://www.dso.ufl.edu/sccr/>. **Note that the process is one that involves the faculty member and the students:**

*"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://disability.ufl.edu/>) 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 in the semester.

**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 and you want to pursue this potential option, then you must contact the Instructor as soon as possible. A PDF of the policy is posted at: <http://www.phys.ufl.edu/downloads/gradepolicy.pdf>.

**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 and updated on the course UF ELS Canvas page.

**Comments on Knowing Your Grades:** It is expected that graded material will be returned to each student in a timely fashion, usually at the start of the first-class period after which it was submitted. In most instances, the material and rubric will be reviewed during a lecture. After the review, if a student has any

question about the grading of the work, please arrange for a timely meeting (typically within a week of grades being posted) with the Instructor to review the grading. Students should keep records of the materials submitted as graded exercises. The UF ELS Canvas site 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:** Please avoid having distracting audio or visual events occur during class. Use of electronics in the classroom, if used, are to be related to the course material only. **Suggestion:** Be careful of using non-UF based “chat” methods as behavior on any non-UF based platforms because they may be considered outside the extent of the UF Honor Code.

**Course Evaluations:** Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.