

Instructor: Professor M. LoVerde

email: marilena.loverde@stonybrook.edu

Office: Math 6-103

Course Website: Blackboard

Office Hours: Wednesday 2PM-3PM, Math 6-103 or by appointment

Lectures: Tuesday and Thursday 11:30AM - 12:50PM, Harriman Hall 112

Teaching Assistant: Jiayang Yan

email: jiayang.yan@stonybrook.edu

Office: S- 107

Office Hours: To be determined! Likely, Monday 10:30-11:30AM

Grading: 20% Homework, 20% Midterm 1, 20% Midterm 2, 40% Final Exam.

Course Topics: Conservation Laws in Electrodynamics, Electromagnetic Waves in Vacuum, Electromagnetic Waves in Materials, Potential Formulation of Electrodynamics, Radiation of Electromagnetic Waves, Electrodynamics and Special Relativity

Lecture Plan: Course lectures will follow the course textbook but will also include material that is not in the textbook. You are strongly encouraged to attend lectures and be engaged with the material discussed during the lecture.

Homework Plan and Policies:

- Homework will be given on Thursdays (posted on Blackboard) and typically due the following Thursday by the end of class (or earlier by sliding under the door of Math 6-103)
- Homework is the main method for developing a deep understanding of the material. Your job is to do the homework *and* to produce clear and complete answers (for grading purposes and for your future self to study from!).
- You are strongly encouraged to work together on homework. You must write up the final answer on your own. Your submitted work must clearly demonstrate that you wrote up the final answer on your own.
- Homework turned in by Friday by 9AM (under my office door) will be marked down 20%, Homework turned in by Monday 9AM will be marked down 40%, HW will not be accepted past Monday morning 9AM.
- Homework is accepted in handwritten or printed paper form only (not emailed, for instance). You are free to use software (e.g. Mathematica) but your final solutions should be in paper form and explain what was done if any software was used.

Midterm and Final Plan and Policies:

- The first midterm will be given in class on March 5th

- The second midterm will be given in class on April 9th
- The final will be given at 11:15AM - 1:45PM on May 19th
- It is your responsibility to ensure that you are present at the midterm and final exams.
- A missed exam without written documentation of a valid excuse will be given a 0.

Learning Outcomes: Students who complete this course will have a basic understanding of electrodynamics in vacuum and in materials, including conservations laws, waves and radiation, and elementary tensor calculus. Understanding these topics will give foundational understanding of these topics as well as provide mathematical methods for solving differential equations in other contexts.

Americans with Disabilities Act:

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, Room 128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

Academic Integrity:

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at http://www.stonybrook.edu/commcms/academic_integrity/index.html

Critical Incident Management:

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.

Electronic Communication:

Email to your University email account is an important way of communicating with you for this course. For most students the email address is 'firstname.lastname@stonybrook.edu'. *It is your responsibility to read your email received at this account.* For instructions about how to verify your University email address see this: <http://it.stonybrook.edu/help/kb/checking-or-changing-your-mail-forwarding-address-in-the-epo>

You can set up email forwarding using instructions here:

<http://it.stonybrook.edu/help/kb/setting-up-mail-forwarding-in-google-mail>

If you choose to forward your University email to another account, we are not responsible for any undeliverable messages.

Religious Observances:

See the policy statement regarding religious holidays at

<http://www.stonybrook.edu/registrar/forms/RelHolPol%20081612%20cr.pdf>

Students are expected to notify the course professors by email of their intention to take time out for religious

observance. This should be done as soon as possible but definitely before the end of the 'add/drop' period. At that time they can discuss with the instructor(s) how they will be able to make up the work covered.