

ELECTROMAGNETICS II

PHYS 4342 (CRN: 21901; SPRING 2022)

Lectures: Liberal Arts Building 207; 03:00 pm – 4:20 pm MW, face-to-face instruction

Term: Jan 18, 2020 - May 05, 2020

Prerequisite courses: PHYS 4341

Instructor: Dr. Hari Nair (hnair@utep.edu #PSCI 223 C, Ph: 7544)

Office hours: T/TR 02:00 pm – 04:00 pm

TA:

TA's office hours:

FINAL EXAM DATE: Monday, May 9th 1:00 pm – 3:45 pm (scheduled by UTEP)

<https://utep.edu/student-affairs/registrar/scheduling/Final%20Exams%20Schedule/Final%20Exam%20Schedule%20Spring%202022.pdf>

Textbook: *Introduction to Electrodynamics 3rd ed or 4th ed*, David J. Griffiths (DJG)

Course objectives: PHYS 4342 is the second part of a sequence of advanced undergraduate physics courses at the junior or senior level for advanced concepts in electromagnetism. Electromagnetics I (PHYS 4341) is a prerequisite. The course objective is to provide an in-depth understanding of the following topics: 1) Review of important concepts of PHYS 4341 (optional); 2) Ch 7 (DJG) Electrodynamics; 3) Ch 8 (DJG) Conservation laws; 4) Ch 9 (DJG) Electromagnetic waves; 5) Ch 10 (DJG) Potential and fields; 6) Ch 11 (DJG) Radiation; 7) Ch 12 (DJG) Electrodynamics and relativity.

Grading policy: Total score 100 % = Midterm exam 40% + Final exam 40% + in-class performance, quizzes and homework assignments 20%. The final exam will be based on all the chapters covered in class lectures. Letter grades are assigned as follows: Score > 85% = A, score ~70-85% = B, score ~60-70% = C, score ~50-60% = D, score < 50% = F.

Disability and military statements: If you have a disability please contact Center for Accommodations and Support Services (CASS) *ph:* 747-5148, *email:* cass@utep.edu. *Office:* Union East Building, Room 106. Without CASS documentation, no accommodations can be made. Please take care of this before the first exam. 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 instructor at the beginning of the semester.

Academic Integrity policy

<https://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html>