



University of Michigan

—◆交大密西根学院◆—

UM-SJTU Joint Institute



Shanghai Jiao Tong University

Course Profile

Degree Program:

☐ ECE-Electrical & Computer Engineering

☐ ME-Mechanical Engineering

* General Courses for Both ECE & ME Degree Programs

Course Name: Honor Physics II

Course Code: VP 260

Course Credits: 4

Course Category: * Required ☐ Elective

Terms Offered:

✓ Fall 2024

☐ Spring (YYYY-YYYY)

☐ Summer (YYYY-YYYY)

Course Pre/Co-requisites:

Honor Physics I; Applied Calculus III or Honors Mathematics III

Reference books (no specific textbook for this course):

Hugh D. YOUNG, Roger A. FREEDMAN, University Physics (14th edition)

Ruth CHABAY, Bruce SHERWOOD, Matter & Interactions vol. II (3rd edition, available in ER Room)

selected topics: David J. GRIFFITHS, Introduction to Electrodynamics (3rd edition, available in SJTU library)

Instructor:

Zijie Qu (屈子杰)

Office: Room 517, JI Building

Email: zijie.qu@sjtu.edu.cn

Teaching Assistant:

Zixiang Lin (林子翔)

Email: linzixiang@sjtu.edu.cn

Grading Policy:

- Homework: weighting factor 20%
- Project: weighting factor 20%
- One medium-term exams: grading weighting factor 20%



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- One final exam: grading weighting factor: 30%
- Additional optional assignments: weighting factor 10%

Academic Integrity: (Any types of honor code regulations like class rules, homework policy, exam rules or project collaboration policy could be defined here)

It is very necessary to show up in the class. Homework assignments need to finish independently and submit on time. Frequent discussions and exchanges with the instructor or TAs are strongly encouraged. To make a fair judgment of learning, strict rules related to homework assignments and exams need to be formulated without exception. Any honor code violation behavior (e.g. plagiarism) must be recorded with corresponding penalty.

Lectures:

Students are encouraged to read the relevant chapters in the textbook ahead of the lecture. Students are required to read and review the relevant chapters after the lecture. Lecture notes will be available on Canvas. Students are expected to attend lectures.

Homework:

Homework will be assigned in the form of problem sets to be solved by each student individually or projects to be completed in groups. Problem sets will have a due date assigned, by which the homework has to be handed in for grading. **NO LATE HW** is allowed. Only one extra homework will be available for those who failed to submit the homework. This extra homework will be posted by the end of the semester. For those who do complete their HW on time, submitting this one won't give any extra credit

Exams:

There will be one midterm exam and one final exam. The form of the exams will be announced at least one week before the exam date. The use of a non-electronic English-Chinese dictionary will be allowed during the exams.

Course description:

Honors Physics II (Vp260) is the second part of the two-semester honors course in general physics and focuses on electromagnetism, with elements of the wave optics. The aim of this course is to rigorously introduce the fundamental laws of electromagnetism and illustrate them in applications. Conceptual links across different areas of physics are emphasized in order to develop interdisciplinary intuition allowing to approach problems in various fields of science and engineering in a systematic way