



**University of International Business and Economics
International Summer School**

PHY 210 Introductory Physics II

Term: June 13th – July 14th, 2022

Instructor: Prof. Shanshan Chen

Home Institution: Renmin University of China

Email: TBD

Class Hours: Monday through Thursday, 120 minutes each day (2,400 minutes in total)

Office Hours: TBD

Discussion session: 2 hours each week

Total Contact Hours: 64 contact hours (45 minutes each, 48 hours in total)

Credit: 4 units

Course Description:

Calculus-based introduction to electricity and magnetism course in Physics. Electric and magnetic fields, their origins, and their effects. The origin of electro-magnetic waves, how they relate to light. This is an intensive course, especially given the limited time frame, and students should take this into account.

Course Goals:

The goal is for you to develop a deep conceptual understanding of physics along with problem solving skills that will serve you well in your future studies.

Required Textbook:

"Physics for Scientists and Engineers: A Strategic Approach", 3d Edition, by Randall D. Knight
We will cover chapters 25 to 35, ISBN: 978-0-321-74090-8

Grading Policy:

The grades will be determined as follows:

30% for homework solutions

30% for the midterm exam

40% for the final exam

Grading Scale:

Assignments and examinations will be graded according to the following grade scale:

A	90-100	C+	72-74
A-	85-89	C	68-71
B+	82-84	C-	64-67
B	78-81	D	60-63
B-	75-77	F	below 60

Academic Honesty:

Students are expected to maintain high standards of academic honesty. The work you produce in this class should be the product of your own time in reading, thinking, and writing. Any academic misconduct of any type, especially cheating on an exam, will automatically trigger: (1) expulsion from the course; (2) the issuance of a failing grade for the course, (3) the issuance of a formal report about the student's misconduct to the student's home university, and (4) any other disciplinary or administrative action deemed appropriate by Professor Chen and the leaders of UIBE. Students are allowed to co-operate on, but not copy, homework exercises.

Deadline Policy:

Summer school is very intense and to best ensure your success in this class, students must be proactive in their work. This means that you should not only be disciplined about completing assigned reading and assignments in a timely way, but also that you reach out to me when you have questions.

All work in the class will have a reasonable "window" of time within which to complete it, and because of the limit of a 5-week semester, we don't have a lot of room.

Course Schedule:

Day 1, Mon: Chapters 25 Electric Charges and Forces

Day 2, Tues: Chapters 25&26 Electric Charges and Forces & The Electric Field

Day 3, Wed: Chapters 26 The Electric Field

Day 4, Thurs: Chapters 27 Gauss's Law

Day 5, Mon: Chapter 28 The Electric Potential

Day 6, Tues: Chapter 28&29 The Electric Potential & Potential and Field

Day 7, Wed: Chapter 29 Potential and Field

Day 8, Thurs: Review

Day 9, Mon: Mid-term Exam



Day 10, Tues: **Chapter 30** Current and Resistance

Day 11, Wed: **Chapter 31** Fundamentals of Circuits Potential and Field

Day 12, Thurs: **Chapter 31** Fundamentals of Circuits Potential and Field

Day 13, Mon: **Chapter 32** The Magnetic Field

Day 14, Tues: **Chapter 32** The Magnetic Field

Day 15, Wed: **Chapter 33** Electromagnetic Induction

Day 16, Thurs: **Chapter 33** Electromagnetic Induction

Day 17, Mon: **Chapter 34** Electromagnetic Fields and Waves

Day 18, Tues: **Chapter 35** AC Circuits

Day 19, Wed: **Review session**

Day 20, Thurs: **Final Exam**