University of International Business and Economics

University of International Business and Economics
International Summer School

PHY 110 Fundamentals of Physics

Term: May 24 – June 24, 2021
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: BD
Discussion session: 2 hours each week

Total Contact Hours: 64 contact hours (45 minutes each, 48 hours in total)
Credit: 4 units

➔Please note on page 2/3 alternative arrangements which may become necessary if the health situation does not permit in-person classes.

Course Description:

Calculus-based introduction to Physics designed for students not in the physical sciences. The material to be covered is basically the first half of a standard College Physics course, Mechanics. This is an intensive course, especially given the limited time frame, and students should take this into account.

Course Goals:

The goal is, in addition to having students learn to solve physics problems, to provide students with an overview of how the material taught fits together within a single conceptual framework.

Required Textbook:

Fundamentals of Physics, **Volume 1**, 10th Edition by David Halliday, Robert Resnick, Jearl Walker ISBN: 9781118230725

Grading Policy:

For traditional class, the grades will be determined as follows:
10% for attendance
20% for homework solutions
30% for the midterm exam
40% for the final exam

For online course, 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

Class Rules:

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.

Attendance Policy:

The attendance of every student at **all** class sessions is mandatory. There will be limited exceptions based on formal written permission of the professor.

Course Schedule:

***** Please note that the Course Schedule is the same both for the traditional class or the online class.**

Day 1, Mon: Chapters 1&2 Measurement and Motion along a straight line

Day 2, Tues: Chapters 2 Motion along a straight line

Day 3, Wed: Chapters 3 Vectors

Day 4, Thurs: Chapters 4 Motion in Two and Three Dimensions

Day 5, Mon: Chapter 5 Force and Motion I

Day 6, Tues: Chapter 6 Force and Motion II

Day 7, Wed: Chapter 7 **Kinetic Energy and Work**

Day 8, Thurs: Review

Day 9, Mon: Mid-term Exam

Day 10, Tues: Chapter 7&8 **Potential Energy and Conservation of Energy**

Day 11, Wed: Chapter 8 **Potential Energy and Conservation of Energy**

Day 12, Thurs: Chapter 9 **Center of Mass and Linear Momentum**

Day 13, Mon: Chapter 9 **Center of Mass and Linear Momentum**

Day 14, Tues: Chapter 9& 10 **Rotation**

Day 15, Wed: Chapter 10 **Rotation**

Day 16, Thurs: Chapter 10&11 **Rolling, Torque, and Angular Momentum**

Day 17, Mon: Chapter 11 **Rolling, Torque, and Angular Momentum**

Day 18, Tues: Chapter 11 **Rolling, Torque, and Angular Momentum**

Day 19, Wed: Review session

Day 20, Thurs: Final Exam