Course number	U-LAS12 10003 LE57		
Course title (and course title in English)	Fundamental Physics A-E2 Fundamental Physics A-E2	Instructor's name, job title, and department of affiliation	Graduate School of Engineering Senior Lecturer,Lim, Sunghoon

Group	Natural Sciences	Field(Classification)	Physics(Foundations)

Language of instruction	English	Old group	Group B	Number of credits	2

Number of weekly time blocks	1	Class style	Lecture (Face-to-face course)	Year/semesters	2025・First semester

Days and periods	Tue.2	Target year	Mainly 1st year students	Eligible students	For science students

[Overview and purpose of the course]

This course introduces the terminology and fundamental concepts of classical mechanics. It covers law of conservation involving energy and momentum and mathematical modeling of a system of particles.

[Course objectives]

The goal of this course is to learn the concepts of analytic method for solving equations of motions which are the most common and important mathematical models in science and engineering and to develop an ability to apply the theories to solve a real world physics problem.

[Course schedule and contents)]

1. Vectors, kinematics, and circular motion (3 weeks)
2. Newton's laws of motion and circular motion dynamics (3 weeks)
3. Momentum and conservation of momentum (2 weeks)
4. Potential energy and conservation of energy (3 weeks)
5. System of particles and rigid body dynamics (3 weeks)
6. Final examination (1 week)
7. Feedback session (1 week)

[Course requirements]

Basic knowledge of high school physics is required for effective lesson.

[Evaluation methods and policy]

Attendance and homework (30%), Participation (20%), and final examination (50%)

[Textbooks]

Study guides will be given in every lecture.

[References, etc.]

（References, etc.）

David Halliday, Robert Resnick, and Jearl Walker 『Fundamentals of Physics 10th Edition』 （Wiley）
ISBN:111823071X

[Study outside of class (preparation and review)]

Study guides and simple assignments will be provided every week, to help you expand your knowledge.

[Other information (office hours, etc.)]

Questions can be sent by email, and will be answered electronically.