科目ナンバリング	U-LAS12 10003 LE57						
授業科目名<英訳>	Fundamental Physics A-E2 Fundamental Physics A-E2			担当者所属職名・氏名	工学研究科　講師　　林　聖勳		
群	自然科学科目群			分野(分類)	物理学(基礎)	使用言語	英語
旧群	B群	単位数	2単位	週コマ数	1コマ	授業形態	講義（対面授業科目）
開講年度・開講期	2026・前期	曜時限	火2	配当学年	主として1回生	対象学生	理系向

[授業の概要・目的]

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.

[到達目標]

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.

[授業計画と内容]

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)

[履修要件]

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

[成績評価の方法・観点]

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

[教科書]

Study guides will be given in every lecture.

[参考書等]

（参考書）

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

[授業外学修（予習・復習）等]

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

[その他（オフィスアワー等）]

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

[主要授業科目（学部・学科名）]

理学部