科目ナンバリング							
授業科目名<英訳>	A Guide to Modern Physics A-E2 A Guide to Modern Physics A-E2			担当者所属職名・氏名	理学研究科　准教授　WENDELL,Roger		
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	2024・前期	曜時限	月3	配当学年	主として1回生	対象学生	全学向

[授業の概要・目的]

This course will discuss the fundamentals of classical (Newtonian) mechanics, the first step in understanding many phenomena in the natural world. Lectures will be discussion-oriented and will provide many opportunities for student's to improve their scientific English abilities. In addition, the end of the course will introduce students topics in modern physics.

[到達目標]

To learn and understand basic phenomena from fundamental physical principles and conservation laws.

[授業計画と内容]

Lectures on the basics of classical Newtonian mechanics will cover the following topics with each covered in two or three weeks:

1) Principles of momentum, velocity, and acceleration
2) Equations of motion and their applications
3) Conservation laws, work and energy
4) Discussing physical phenomena in our daily lives
5) Introduction to topics in modern physics, such as relativity and quantum mechanics

[履修要件]

特になし

[成績評価の方法・観点]

Student's comprehension of the course material will be evaluated based on participation in in-class discussions (20 points), five homework sets (worth 60 points total), and a final exam (20 points).

[教科書]

使用しない

[授業外学修（予習・復習）等]

Will be presented in class

[その他（オフィスアワー等）]

Students interested in improving their scientific English are encouraged to join this course.