科目ナン	バリン	グ U-1	-LAS12 10027 LE57							
授業科目 <英訳>		ntroduction to Light Control-E2 atroduction to Light Control-E2				坦当者所 哉名・氏	属工	学研究科	講師 DE ZOYSA, Menaka	
群	自然科学科目群			分野(分類)	物理等	学(基礎	<u>.</u>)		使用言語	英語
旧群	B群	単位数	2単位	週コマ数	133	マ 授業形態 講		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	配当学年 主と		9生 対象学	生理系向

[授業の概要・目的]

This course aims to introduce light control techniques and enhance the understanding of cutting-edge photonic technologies. We will start by explaining the fundamentals of light control, followed by a discussion on nanostructure-based cutting-edge photonic technologies.

[到達目標]

- Understand the fundamentals of light control
- Understand nanostructure-based cutting-edge photonic technologies

[授業計画と内容]

- 1. Overview of the course (1 week)
- 2. Maxwell's equations and basic properties of light (4 weeks)
- 3. Simulation methods used in light control techniques (3 weeks)
- 4. Introduction to photonic nanostructures for light control (3 weeks)
- 5. Nanostructure-based cutting-edge photonic technologies (3 weeks)
- 6. Feedback (1 week)

[履修要件]

Having knowledge of electromagnetism is recommended.

[成績評価の方法・観点]

Evaluation will be based on participation (20%), homework (30%), and final examination (50%).

[教科書]

使用しない

[参考書等]

(参考書)

Max Born and Emil Wolf Principles of Optics a

[授業外学修(予習・復習)等]

Students are required to do their homework. When trouble is encountered during homework, please refer to the recommended textbook or ask the instructor.

[その他(オフィスアワー等)]

Office hours: Anytime by email, and appointments should be made via email.