

科目ナンバリング							
授業科目名 <英訳>	ILAS Seminar-E2 :Topics in Frontier Physics (現代物理学の最先端) ILAS Seminar-E2 :Topics in Frontier Physics			担当者所属 職名・氏名	理学研究科 教授 WENDELL,Roger		
群	少人数群	単位数	2単位	週コマ数	1コマ	授業形態	ゼミナール(対面授業科目)
開講年度・ 開講期	2025・前期	受講定員 (1回生定員)	20(12)人	配当学年	主として1回生	対象学生	全学向
曜時限	月5	教室	4共25			使用言語	英語
キーワード	Modern Physics / Nobel Prize / Physics Discoveries						
【授業の概要・目的】							
This class will introduce students to new and exciting topics in modern physics. Recent discoveries and Nobel prize-winning research will be discussed in straight-forward terms so every one can understand and enjoy modern science. Lectures and discussions will be held in English and will cover a wide variety of topics in recent research. Even students with no previous physics experience are encouraged to join this class and learn about how we understand the world today.							
【到達目標】							
Students in this course will learn about the fundamental physics behind recent topics in modern research as well as how they are applied in the real world. In addition, students will be introduced to and practice speaking in scientific English.							
【授業計画と内容】							
Each week a different topic in modern physics and cosmology will be presented. The following week will provide a review of material with discussion. Topics will include some of the following:							
<ul style="list-style-type: none"> <li>-) Discovery of the Higgs boson</li> <li>-) Observation of gravitational waves</li> <li>-) Neutrinos and their oscillations</li> <li>-) Radiation in the modern world</li> <li>-) The history and accelerating expansion of the universe</li> <li>-) Quarks and CP symmetry</li> <li>-) Lasers for trapping atoms</li> <li>-) From the birth of stars to supernovae</li> </ul>							
In addition to the above, students may request lectures on a few topics of their choice.							
【履修要件】							
特になし							
【成績評価の方法・観点】							
This is a seminar course and the grade will be based on in-class participation only. Coming to each class with questions and an open mind is all that is needed.							
----- ILAS Seminar-E2 :Topics in Frontier Physics (現代物理学の最先端)(2)へ続く -----							

**【教科書】**

使用しない

**【参考書等】**

(参考書)  
授業中に紹介する

**【授業外学修 ( 予習・復習 ) 等】**

Instructions on material to review ahead of lectures and supplementary reading will be presented in class.

**【その他 ( オフィスアワー等 ) 】**

Students curious about recent discoveries in physics are encouraged to attend this course.

**【主要授業科目 ( 学部・学科名 ) 】**