科目ナンバリング	U-LAS15 10012 LE56						
授業科目名 <英訳>	Introduction to General Astronomy-E2 Introduction to General Astronomy-E2			担当者所属 職名・氏名	理学研究科　准教授　LEE, Shiu Hang		
群	自然科学科目群			分野(分類)	地球科学(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	水4	配当学年	全回生	対象学生	全学向

[授業の概要・目的]

The quest to understand our origins, namely, the origin of the universe is probably one of the oldest questions of human kind. In this course the latest advances in our knowledge of the universe are learned in plain language. The spatial and temporal scales of the universe and the key components (planets, stars, and galaxies, and their structures) are described in detail, and the basic techniques and logic employed in astronomical science are discussed.

[到達目標]

To obtain an overview understanding of the universe currently obtained by humankind, and to learn the basics of astronomical observations and theories employed in discoveries about the cosmos. Through the above, students will cultivate in themselves an scientific attitude which can be applied in their daily life and future career.

[授業計画と内容]

The following topics will be introduced (but not necessarily in this order):
1. Overview of modern astronomy and astrophysics
2. Planets, moons and other objects in the Solar System
3. Formation of planetary systems
4. Observation of exo-planets
5. Our Sun
6. Stars
7. Stellar evolution (low-mass stars and massive stars)
8. Supernova explosions
9. Neutron stars and pulsars
10. Blackholes and general relativity
11. Active galaxies
12. Gamma-ray bursts
13. Cosmological history of the Universe (if time allows)

Each item above will be covered in 1 to 1.5 lectures, except stellar evolution which will be covered in 2 lectures. Including the feedback period, the course will be covered in 15 lectures in total.

[履修要件]

At the beginning of the course, you do not need prior knowledge of physics or astronomy. Basic mathematical skills (but calculus needed) are desirable. Essential knowledge for the course will be provided as needed in class.

[成績評価の方法・観点]

Evaluation based on:
1) Weekly online homework due every Tuesday, and
2) Class attendance and participation

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Both effective only after the registration period. Details are explained during class.

[教科書]

授業中に指示する

[参考書等]

（参考書）

Geller, Freedman, and Kaufmann 『Universe』（W H Freeman & Co）ISBN:1319248640（11th edition (2019) (10th edition is also acceptable)）

[授業外学修（予習・復習）等]

Read the lecture notes, online materials and reference book

[その他（オフィスアワー等）]

Students are encouraged to ask questions during the lectures, and are welcome to contact the professor by email outside of class hours. All lecture notes, homework sets and grades will be made available on the course's LMS website.

[主要授業科目（学部・学科名）]

理学部