Course	nber	ber U-LAS15 10012 LE56											
Course title (and course title in English)				General A General A	•	name and d	Instructor's name, job title, and department of affiliation			Graduate School of Science Associate Professor,LEE, Shiu Hang			
Group	Na	tural So	ciences		Field(Classification)			Earth Science(Foundations)					
Language of instruction		English				Old group Group B				Number of credit		redits	2
Number of weekly time blocks		1			Lecture (Face-to-face course)			Year/semesters		2025 • First semester			
Days and periods		Wed.4			Target year		All students		Eligible students		For all majors		
[Overview and purpose of the course]													
The quest	to u	indersta	and our	origins, n	amely	, the ori	gin of tł	ne universe	e is p	pr	obably one of	the olde	est 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.

[Course objectives]

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.

[Course schedule and contents)]

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
- 5. Stars
- 6. Stellar evolution (low-mass stars and massive stars)
- 7. Supernova explosions
- 8. Neutron stars and pulsars
- 9. Blackholes and general relativity
- 10. Active galaxies
- 11. Gamma-ray bursts
- 12. 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.

[Course requirements]

At the beginning of the course, you do not need prior knowledge of physics or astronomy. Basic

Continue to Introduction to General Astronomy-E2(2)

Introduction to General Astronomy-E2(2)

mathematical skills (but calculus needed) are desirable. Essential knowledge for the course will be provided as needed in class.

[Evaluation methods and policy]

Evaluation based on:

1) Weekly online homework (due every Tuesday), and

2) Class attendance and participation (taken after registration period)

(Details are explained during class)

[Textbooks]

Instructed during class

[References, etc.]

(References, etc.)

Geller, Freedman, and Kaufmann ^{II} Universe I (W H Freeman & Co) ISBN:1319248640 (11th edition (2019) (10th edition is also acceptable))

[Study outside of class (preparation and review)]

Read the lecture notes, online materials and reference book

[Other information (office hours, etc.)]

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 PandA website.