



김천대학교
GIMCHEON UNIVERSITY

Gimcheon University

AST 1A1 Astronomy I

Course Information

Term: Summer 2021

Instructor: TBA

Contact Hours: 58 hours

Class Time: 8:30 - 10:20

Credits: 4

Course Format: face to face

Brief Description

This course is designed for students who are interested in exploring the mysteries of the universe but without prior knowledge of Astronomy. By learning the course, students will fully understand the Earth, the Moon and the other planets in the solar system, as well as comets and asteroids. In addition, students will learn to observe the night sky without a telescope. The topics will include the use of telescopes and probes, the history of astronomy, human activities in the space too.



Previous Requisites

None.

Learning Results

Having successfully completed this course, students will be able to:

1. Describe the basic information of the planets in the solar system, and some other celestial bodies like comets;
2. Use telescopes to observe and to recognize the patterns and the main stars in the night and day sky;
3. Interpret the phases of the moon and the relationship between the Earth and the moon, and the Sun and the moon;
4. Introduce the human activities in the space and how these activities contribute to the understanding of the universe;
5. Explain how astronomers measure electromagnetic radiation from various sources and use that information to derive an understanding of astronomical objects and phenomena;
6. Use planetarium software like STELLARIUM to find the planets in the universe.



Methodology

Methodology	Hours	Hours of work Face-to-face	Hours of work Non Face-to-face
Lectures	50	88 hours (60%)	
Practice teaching	8		
Assessment	30		
Personal study	30		68 hours (40%)
Tasks	22		
Practical teaching preparation	10		
Bibliographic search	6		
TOTAL	156	88	68

Required Textbook

1. Jeffrey Bennett, Megan Donahue, Nicholas Schneider & Mark Voit, *The Cosmic Perspective*, 8th Edition, Pearson Education, Inc. Press, 2017.
2. Lauren Jones, *Observation Exercises in Astronomy*, 1st Edition, Pearson, 2010.

Course Content

Week	Lesson	Content
1	1	Course Introduction A Modern View of the Universe
	2	Patterns in the Night Sky



		Discovering the Universe for Yourself
	3	Patterns in the Night Sky Discovering the Universe for Yourself (Cont.)
	4	Light and Matter: Reading Messages from the Cosmos
	5	Understanding Motion, Energy, and Gravity Quiz 1
2	6	The History of Astronomy The Science of Astronomy
	7	The History of Astronomy The Science of Astronomy (Cont.)
	8	Telescopes and Observations Telescopes: Portals of Discovery
	9	Telescopes and Observations Telescopes: Portals of Discovery (Cont.)
	10	Midterm Test Reviews Quiz 2
3	11	Midterm Test
	12	The Solar System Our Planetary System
	13	Formation of the Solar System
	14	Formation of the Solar System (Cont.)
	15	Planetary Geology: Earth and the Other Terrestrial Worlds Quiz 3
4	16	Planetary Geology: Earth and the Other Terrestrial Worlds (Cont.)
	17	Planetary Atmospheres: Earth and the Other Terrestrial Worlds
	18	Planetary Atmospheres: Earth and the Other Terrestrial Worlds (Cont.)
	19	The Planetary Bodies Jovian Planet Systems
	20	Asteroids, Comets, and Dwarf Planets: Their Nature, Orbits and Impacts Quiz 4
5	21	Field Trip



	22	Other Planetary Systems: The New Science of Distant Worlds
	23	Space and Time Einstein's Revolution and Relative Motion
	24	Final Exam Reviews
	25	Final Exam

Rating System:

1. Assessment

ASSESSMENT ITEM	PERCENT OF FINAL GRADE
4 Quizzes	40% (10% for each)
Field Trip	10%
Midterm Test	20%
Final Exam	30%

2. Grading Scale

A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
C+	67-69
C	63-66
C-	60-62
D+	57-59



D	53-56
D-	50-52
F	Blow 50

General Expectations:

Students are expected to:

- Attend all classes and be responsible for all materials covered in class and otherwise assigned;
- Complete the daily required reading and assignments before class;
- Review the previous class notes before class and make notes about questions you have about the previous class or the course reading;
- Participate in class discussions and complete required written work on time;
- Refrain from texting, phoning or engaging in computer activities unrelated to class during the class period;
- While class participation is welcome, even required, you are expected to refrain from private conversations during the class period.

Attending Policy

Regular and prompt attendance is required. Attendance will be taken at the start of the course. Those that miss their name, during roll call, will be counted as absent.

Students can miss up to three classes (including labs) and earn 7% (out of 10%). After the third absence, students will earn a grade of 0% (out of 10%). Arriving late and/or leaving before the end of the class are equivalent to absences.



Policy on “Late Withdrawals”

In accordance with the policy of UCAM, appeals for late withdrawal will be approved **ONLY** in case of medical emergency and similar crises.

Academic Honesty

All students are expected to respect academic honesty policy. Instructors will fail assignments that show any evidence of plagiarism or other forms of cheating and will also report the student's information to the University Administration Office. A student reported to the University for cheating will be placed on the list of disciplinary probation; a student reported twice will be suspended or expelled.

Special Needs or Assistance

Please contact the University Administrative Office immediately if you have a learning disability, a medical issue, or any other type of problem that prevents professors from seeing you have learned the course material.