



蘇州大學
Soochow University

AST 101 Astronomy I

Summer 2024

Course Credits: 4

Contact Hours: 56 hours

Instructor: TBA

Email: TBA

COURSE OBJECTIVES

The course is an introduction to the science of astronomy and will focus on the mysteries of the solar system with no requirement for prior knowledge. In this course, students will explore the secret of the Earth, the Moon and other planets in the solar system, including their features and origins. They are also expected to develop their understanding of some travelers in the universe, like comets and asteroids. Besides, methodologies and tools for astronomic study will also be introduced.

Upon completion of this course, students will be able to:

1. Understand the basic terms related to the solar systems, the planets and other celestial bodies;
2. Describe and compare the features of each planet in the solar system;
3. Explain why the Earth is so special in the solar system;
4. Interpret the phases of the moon and the relationship between the Earth and the moon, and the Sun and the moon.

PREREQUISITES

PHY 111 Introduction to Physics

GRADING

Grades will be determined by accumulating points, with 100 points being the maximum, as follows:

ITEM	POINTS
2 Assignments	20 Points
2 Quizzes	20 Points
Midterm Exam	30 Points



Final Exam	30 Points
Total	100 Points

Late submissions will be graded at the end of the course. Grades will be assigned according to the following rule:

$A \geq 90 > B \geq 80 > C \geq 70 > D \geq 60 > F$.

We reserve the right to make adjustments to the overall grading policy.

COURSE MATERIALS

Required Texts:

Ivan T. Berend(2006), *An Economic History of Twentieth-Century Europe*, Cambridge University Press

Recommended (Optional) Texts or Other Materials:

None

COURSE TOPICS

MODULE	TASKS
Module 1	Topics: Topic 1: A Modern View of the Universe Topic 2: Discovering the Universe for Yourself Topic 3: Light and Matter: Reading Messages from the Cosmos Topic 4: Understanding Motion, Energy, and Gravity Assessments: Assignment # 1
Module 2	Topics: Topic 5: The Science of Astronomy Topic 6: The Science of Astronomy (Cont.) Topic 7: Telescopes: Portals of Discovery Topic 8: Telescopes: Portals of Discovery (Cont.) Assessments: Quiz # 1



Module 3	Topics: Topic 9: Our Planetary System Topic 10: Formation of the Solar System Topic 11: Planetary Geology: Earth and the Other Terrestrial Worlds Topic 12: Planetary Geology: Earth and the Other Terrestrial Worlds (Cont.) Assessments: Midterm Exam
Module 4	Topics: Topic 13: Jovian Planet Systems Topic 14: The Planetary Bodies Topic 15: Asteroids, Comets, and Dwarf Planets: Their Nature, Orbits and Impacts Topic 16: Asteroids, Comets, and Dwarf Planets: Their Nature, Orbits and Impacts (Cont.) Assessments: Assignment # 2
Module 5	Topics: Topic 17: Other Planetary Systems: The New Science of Distant Worlds Topic 18: Space and Time Topic 19: Einstein's Revolution and Relative Motion Topic 20: Course Review and Conclusion Assessments: Quiz # 2 Final Exam

ATTENDANCE

1) Class attendance is required. Missing classes without permission will lead to decrease in overall grade.

Missing less than two classes: no penalty.

Missing more than two classes: 7% will be taken off from the overall grade.

If the instructor reports a student's frequent missing of class to the Soochow University Academic Administration Office, the student might get a written warning and might be prohibited from attending final exam.

2) Participants in this course are expected to arrive in class promptly and adequately prepared. The primary objective of this course is to critically engage with the readings and the subject matter. Therefore, course participants are expected to have completed the reading prior to class and prepare thoughtful reflections/commentaries to share



with fellow colleagues.

LEARNING REQUIREMENTS

- 1) Late assignments are not acceptable and are subjected to grade deductions.
- 2) Assignments submitted in the wrong format will be counted as not submitted.
- 3) Failure to submit or fulfill any required course component results in failure of the class.
- 4) Make-up for midterm and final exams only with valid excuses, as defined by the University.
- 5) In order to earn a Certificate of Completion, participants must thoughtfully complete all assignments by stated deadlines and earn an average quiz score of 50% or greater.

TECHNOLOGY POLICY

The use of electronic devices in class is distracting, both for the user and for the rest of the class. Only non-programmable calculators can be used in the tests and exam. Any attempts to use cell phones and other electronic communication devices will be seemed as cheating. Laptops are discouraged, unless you use them for activities DIRECTLY related to the course (e.g., note taking, reading course documents).

ACADEMIC INTEGRITY POLICY

Soochow University highly values the academic integrity and aims to promote the academic fairness, honesty and responsibility. Any academic dishonesty behaviors and any attempts to cheats and plagiarism will be reported to the university administration office. A written warning and the relevant penalties will be imposed. The record might be shown on the official university transcript.

DISABILITY ACCOMMODATION

Soochow University is committed to maintaining a barrier-free environment so that students with disabilities can fully access programs, courses, services, and activities at Soochow University. Students with disabilities who require accommodations for access to and/or participation in this course are welcome.



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Note:

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.