

Welcome to Physics 105, “Ideas in Astronomy”- Fall 2025

General Information

Instructor: Mark Henriksen
Office: Physics 414
Time: MWF 10:00 -10:50 AM

Email: henrikse@umbc.edu
Office hours: After class/by appt/walk-ins
About Me: <https://astrophysics.umbc.edu/>

Course description

The purpose of this course is to provide undergraduate students with a general background in astronomy. Course content includes: the history of astronomy, the solar system, extrasolar planets, stars, galaxies, dark matter, dark energy, and cosmology. A desired outcome of this course is that students will want to read articles in the popular press about advances in astronomy and will do so with understanding and confidence.

Grading procedure

Grades will be calculated using the following template: (1) two midterm exams – 20% each, (2) homework – 30%, (3) final exam – 30%. Please note that exams will be based on exam reviews, homework, and questions on the lecture viewgraphs.

Lectures and the Textbook

The lecture material amplifies and adds to the content in the textbook with the most recent discoveries. We will cover most of the chapters in the textbook and students should read the textbook for the best course experience. **VGs** used in class are filled with visual and written material. They **serve as lecture notes** for you to come back to later, as I post them on Blackboard.

Textbook: Required Textbook: “The Cosmic Perspective”, Bennett et al., is offered through CMI and can be accessed through Blackboard.

UMBC Telescope

UMBC has a 0.8m telescope on the roof of the Physics Building. There will be a class visit to the telescope during the semester, attendance required, so that you can see a telescope close up and hear how it works!

Schedule of Exams: All take place in our classroom

Midterm I: Wednesday, October 8, 10:00 – 10:50 AM

Midterm 2: November 19, 10:00 – 10:50 AM

Final Exam: Monday, December 15, 10:30 AM – 12:30 PM

Homework Assignments

Homework is due on the dates specified (mostly **Mondays**). Homework consists of problems in Quick Quiz (QQ). A short essay question may also be assigned. For the QQ, it is best to look up each question's relevant material in the textbook before answering. Homework must be handwritten on paper. The correct format is, for example: *1. The largest planet in the Solar system is (b) Jupiter*. The question number and letter (answer) must be clearly readable.

1. Chapter 1 – **Friday, 9/5**

2. Chapter 2 – 9/15

3. Chapter 3 – 9/22

4. Chapter 4 – 9/29

5. Chapter 5 – 10/6

Midterm 1 – 10/8 (Chapter 1 – 5)

6. Chapter 6 – 10/20

- 7. Chapter 7 – 10/27
- 8. Chapter 8 – 11/3
- 9. Chapter 9 – 11/10
- 10. Chapter 10 – 11/17

Midterm 2- 11/19 (Chapters 6 – 10)

- 11. Chapter 12 – 12/1
- 12. Chapters 14 – 12/8

Final Exam: Monday, December 15th (all chapters covered)

Achieving Course Goals and Meeting Academic Expectations

Students should attend lectures, complete all homework assignments, and review for exams. The lecture has updated material that supplements the text.

Policy on late homework, missed Exams, and Exams

“Late homework will not be accepted.” “Make up exams will not be possible.” But if you have a problem, make an appointment and we will discuss it.

Policy on Academic Integrity

“Academic integrity is an important value at UMBC. By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC’s scholarly community in which everyone’s academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal.” Academic integrity will be enforced.

Student Support /Disability Services

“UMBC is committed to eliminating discriminatory obstacles that may disadvantage students based on disability. Services for students with disabilities are provided for all students qualified under the Americans with Disabilities Act (ADA) of 1990, the ADAAA of 2009, and Section 504 of the Rehabilitation Act who request and are eligible for accommodations. The Office of Student Disability Services (SDS) is the UMBC department designated to coordinate accommodations that would allow for students to have equal access and inclusion in all courses, programs, and activities at the University.”