

Astronomy 2291 – Basic Astrophysics & Planetary Astronomy Autumn Semester 2015

Lectures: MWF, 12:40-1:35pm, 1048 Smith Lab (SM 1048)

Professor: Scott Gaudi

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Textbook: Ryden & Peterson, *Foundations of Astrophysics*

Course Web Page: www.astronomy.ohio-state.edu/~gaudi/Ast2291/, and pages on [Carmen](#).

Course Objectives

Astronomy 2291 is the first semester of a two-semester introductory sequence designed for Astronomy and Astrophysics majors and minors, as well as for scientifically literate undergraduates who wish to learn basic astrophysics from a quantitative perspective. The major topics to be covered are

1. The historical development of modern astrophysics
2. The fundamentals of Newtonian gravity and optics as applied to astronomy
3. Electromagnetic radiation and interaction of light and matter
4. The structure and evolution of the Solar System
5. The discovery and properties of planetary systems around other stars

To get the most from this class you should read the assignments in the book, attend and participate in lectures and class discussions, and do the problem sets.

Evaluation

Your final grade will be based on four components. Attendance and class participation (5%), three problem sets (5% each, for a total of 15%), three interim examinations (20% each, for a total of 60%), and the final exam (20%).

Problem Sets

Problem sets will be assigned at regular intervals, with a total of 3 assignments during the semester. Together they will count for 15% of your grade. In general, **late homework will not be accepted for credit**, except with prior approval of the professor.

Examinations

There will be three closed-book, closed-notes in-class examinations scheduled for the dates below. Each in-class exam will count for 20% of your grade.

Exam 1	Friday, September 18
Exam 2	Friday, October 23
Exam 3	Monday, November 23

A comprehensive final exam will be on **Thursday, December 17, from 2:00-3:45pm**. The final exam will count for 20% of your course grade.

Makeup exams will be allowed only under extraordinary circumstances such as severe illness or death of an immediate family member. If you know in advance that you will be out of town for an approved University activity, please contact the professor in advance to make alternative plans for taking the exam. Absences for medical emergencies will require a signed note from your physician. Absences to

participate in approved University activities (teams, bands, ROTC, etc.) will require a signed letter from your coach, activity advisor, CO, etc. as appropriate.

However, if you miss the final exam, you will receive a failing grade unless you contact the professor by **5pm on Friday, December 18** and arrange for a make-up exam at the start of the Spring Semester. In the interim you will receive a grade of Incomplete until the make-up exam is graded.

Students with Disabilities

Any student who feels that he or she may need an accommodation based on the impact of a disability should contact the professor to discuss their specific needs. We work with the Office for Disability Services to verify the need for accommodation and develop appropriate strategies. Students who have not contacted ODS should visit www.ods.ohio-state.edu and request an appointment.

Academic Misconduct

All OSU professors are required to report suspected cases of academic misconduct to the Committee on Academic Misconduct. See the University's Code of Student Conduct for details. All cases will be investigated following University guidelines.

Classroom Etiquette

To help establish and maintain a courteous, respectful, and distraction-free learning environment in our classroom, I ask that everyone please observe these basic rules of classroom etiquette:

Use of cell phones and other wireless 2-way communication devices is prohibited.

During class, all cell phones and wireless 2-way communications devices must be **turned off and put away** (i.e., not in "silent ring" mode).

Use of Wireless Laptops, tablets, smart phones, or other networked devices is restricted to in-class exercises or note-taking.

During class, all laptops, tablets (iPads, etc.), smart phones, and all other wireless networked devices must be **turned off and put away unless performing a class-specific task**. Use of networked devices to read email, text, or browse the internet is not permitted. If you require the use of assistive technologies for hearing or vision impairment, please contact the professor to make the necessary technical arrangements (e.g., AC power, clear sight-lines, etc.)

General Education Learning Goals and Outcomes

Goals:

Students understand the principles, theories, and methods of modern science, the relationship between science and technology, the implications of scientific discoveries and the potential of science and technology to address problems of the contemporary world.

Expected Learning Outcomes:

1. Students understand the basic facts, principles, theories and methods of modern science.
2. Students understand key events in the development of science and recognize that science is an evolving body of knowledge.
3. Students describe the inter-dependence of scientific and technological developments.
4. Students recognize social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.