

Astronomy 4194 – Group Studies

Special Studies in Astronomy Education

Syllabus for May Term 2016

Instructor: Dr. Wayne Schlingman, Dept. of Astronomy
Office: 4057 McPherson Lab (4th floor), mailbox in 4055 McPherson Lab
Phone: 614-292-5807
Office Hours: by appointment
Email: schlingman.4@osu.edu

Class Format and Meeting Times:

Lectures: Tuesday and Thursday, 1-2:30pm
Location: Arne Slettebak Planetarium, 5th floor, Smith Lab

Web Page: Available through <http://carmen.osu.edu>

Course Description

This course is intended to provide an introduction to the content and methods commonly employed in astronomy education at the level of primary and secondary students and members of the general public, with a special emphasis on planetarium shows. The intended audience for the course is students with an interest in primary and secondary education, science literacy, and public outreach. The course topics will include how to present topics that could include:

Week 1: The Night Sky: local sky, daily and annual motions, planets, retrograde motion, eclipses

Week 2: Historical Astronomy: Major historical figures, constellations, planets, and mythology

Week 3: Space Exploration: Exploration of the solar system, major satellite missions

Week 4: Deep Space: Distances in astronomy, our Galaxy, other galaxies, cosmology

Throughout the class there will be emphasis on teaching methods, effective demonstrations, and presentation and communication skills. This will include attendance at several planetarium shows outside of regular class time.

Prerequisites

The course is open to students with a strong interest in astronomy and education, at the discretion of the instructor. The expectation is that students will have taken Astronomy 1101, 1140, or 2291, although demonstrated basic knowledge of astronomy is also sufficient.

Textbook

There is no required textbook, although access to an introductory astronomy textbook will be useful.

Homework, Exams, and Grading

Grades will be based on three short presentations (60% of the total grade, 20% per assignment) and a final presentation (40%). The course is graded S/U.

Assignments: There will be three short presentations that will explain some aspect of that week's topics at a level suitable to the general public. These will take place at the start of the following week.

Final Presentation: The final presentations will be arranged for the last week of classes and consist of a longer presentation.

Academic Misconduct

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

Students with Disabilities

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>.