

**PORTLAND STATE UNIVERSITY  
GENERAL ASTRONOMY**

**Physics 122, Fall 1999**

CRN 13443

Tu and Th, 16:40 - 18:30

SB2, Rm 101

**Instructor:** Pieter Rol

**Office:** SB 1, Rm 33

**Teleph.:** 725-3812 (messages only)

**Hours:** Tuesday, 15:30 - 16:30

**E-mail:** rolp@pdx.edu

Thursday, 18:30 - 19:30

PandGROL@aol.com

**Text:** Michael A. Seeds: "Astronomy, The Solar System and Beyond",  
Wadsworth Publ. Co., 1999.

**Exams:** Five quizzes (all multiple choice, about 20 questions each).

**Final Exam:** Tuesday, December 7, 5:30 p.m. (multiple choice, 100 questions).

**Grading:** Quizzes 10% each (drop lowest grade), **no make-ups**. Final 60%.

We will study the sun and the stars. We will learn how stars form and how they eventually die. We will discuss how some stars end up as neutron stars and others as black holes. Then we will study our galaxy, the Milky Way. After that we will discuss the different types of other galaxies. Finally we will investigate how all this came into being some 10 to 20 billion years ago. All these topics are described in chapters 10 through 18 of our textbook.

Since this is the first time that I teach this course from this text, we will decide which topics to cover as we go along.

If weather permits, we will observe some celestial objects: moon, planets, double stars, clusters, nebulas and galaxies from the roof of Science Building 1. Because of the severe light-pollution the selection of objects is very limited.

If appropriate for the course we will discuss articles that appear in "Sky and Telescope".

**Library resources:** "Sky and Telescope" (5th floor of the library).

**Tentative syllabus:**

Week 1: Chapter 10, The Sun-Our Star.

Week 2: Chapter 11, The Properties of Stars.

Week 3: Rest of chapter 11 and chapter 12, The Formation and structure of Stars. **Quiz.**

Week 4: The rest of chapter 12.

Week 5: Chapter 13, The Death of Stars. **Quiz.**

Week 6: Chapter 14, Neutron Stars and Black Holes. **Quiz.**

Week 7: Chapter 15, The Milky Way Galaxy.

Week 8: Chapter 16, Galaxies. **Quiz.**

Week 9: Chapter 17, Galaxies with Active Nuclei. **Quiz.**

Week 10: Chapter 18, Cosmology