

Physics 344 Observational Optical Astronomy

Fall Semester, 2008

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Text: *Observational Astronomy, 2nd Edition* by Birney, Gonzalez & Oesper, Cambridge University Press
Texts are available at the Rutgers Bookstores or on-line through <http://www.efollett.com/>.

Course Web Page: <http://www.physics.rutgers.edu/ugrad/344/> Important information about the course and useful links to astronomy websites will be posted here, so check it regularly.

Overview: This course provides an introduction to the tools and techniques of modern optical observational astronomy. We shall use the 20-inch optical telescope of the Schommer Observatory to carry out astronomical imaging and spectroscopic observations, and analyze these observations using professional image-processing software. This course is designed to accompany and complement the lecture courses Ph 341-342 *Principles of Astrophysics*. One year of introductory physics is a prerequisite for this course. Students who are not taking Ph 341-342 may enroll in *Observational Optical Astronomy*, but should be prepared to devote additional studies to understand the astronomical background of the observations performed here.

Lectures: Thursday 6:40 – 8:00 pm 401 Serin Physics Lab, Busch Campus. . Room 401 will be reserved for use by students in this course on Wednesday and Thursday afternoons, 1:30-4:30 pm.

Labs: You will select a weekly time period for performing your observations. Makeup times for bad weather will be available. Some labs may require multiple observations. You should have a small flashlight for observing.

Assignments: Observations will be assigned on roughly bi-weekly intervals, and written reports will be due by dates noted on the assignments. Due dates may be postponed if unusually bad weather intervenes. Observing reports not turned in on time will receive the following penalties: up to 1 week late, 33% reduction; 1 to 2 weeks late, 66% reduction; no reports will be accepted more than 2 weeks late.

Term Project: You will design an observing project for the SALT telescope, and prepare an observing proposal using the on-line tools provided by the observatory. Meritorious proposals may be submitted for observations, in conjunction with a faculty sponsor.

Grades: Your course grade will be based on your observation reports, your term project, and on your participation in class and lab. There will be no examinations in this course.

Students with Disabilities: Students with disabilities should refer to the information found at:
<http://www.physics.rutgers.edu/ugrad/disabilities.html>