

# OBSERVATIONAL OPTICAL ASTRONOMY PH 344 FALL 2018

**Instructors:** Professor Tad Pryor

302W Physics & Astronomy Building, Busch Campus

848-445-8873                      pryor@physics.rutgers.edu

Office Hour: Wednesday 3:00 - 4:30 PM (or make an appointment)

Mr. Jack Hay

331W Physics & Astronomy Bldg                      jhay@physics.rutgers.edu

Office Hour: Monday 3:00 - 5:00 PM

**OPTIONAL Text:** *Observational Astronomy, 2<sup>nd</sup> Edition* by Birney, Gonzalez, & Oesper, Cambridge University Press, ISBN 978-0-521-85370-5.

**Course Homepage:** <http://www.physics.rutgers.edu/ugrad/344/>

**Sakai Site:** OBSERV OPTICAL ASTRO F18

Important information about the course and useful links to astronomy websites will be posted here, so check them regularly. The Sakai chatroom is for exchanging information about the course and labs.

**Overview:** This course provides an introduction to the tools and techniques of modern optical observational astronomy. We will 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 follow the lecture course Ph 341-342, *Principles of Astrophysics*. Students who are taking Ph 341 this semester may be allowed to enroll in *Observational Optical Astronomy* at the discretion of the instructor, 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, SEC-216, Busch Campus.

**Labs:** Observing will take place at the Schommer Observatory, Rm 401, Physics & Astronomy Bldg, Busch Campus. You will be assigned a weekly time period for performing your observations on Su, M, Tu, W, or F night from either 7-9 PM or 9-11 PM. Makeup times for bad weather will be available. Some labs may require multiple observations. It is useful to have a small flashlight with a red light for observing.

**Assignments:** Observations will be assigned approximately every two weeks, and written reports will be due by the dates noted on the assignments. Due dates may be postponed if unusually bad weather intervenes. Unless you have my prior approval, lab reports handed in late will receive no more than 90% of the maximum points. No report will be accepted after the solution has been released.

Lab reports should be written up individually even if the data analysis was done as a team.

**Grades:** Your course grade will be based on your lab reports and your participation in

class and lab. There will be no examinations in this course.

**Students with Disabilities:** Students with disabilities are welcome in this class. Please show me your Letter of Accommodations early in the semester so that we can make the necessary arrangements for you to have a successful learning experience. More details on the process are at <http://www.physics.rutgers.edu/ugrad/disabilities.html>.