

## **ASTRON 1263: Techniques of Astronomy 2015 Spring Term**

**CourseWeb:** A CourseWeb site for this course has been created and from there you may view announcements and download course material. CourseWeb should be checked frequently for announcements. To access the CourseWeb site, go to <http://courseweb.pitt.edu> and login using your Pitt email username and password.

**Lectures:** Lectures are 6:00 - 6:50 pm in 105 Allen Hall, but occasionally we may announce that the class should meet in the 210 Thaw Hall computer classroom, depending on the lecturer's preference. Various faculty in the department will give the lectures. The lecture schedule will be coordinated by Dave Turnshek and the TA, Gen Sardane. The tentative lecture schedule is given below.

**Allegheny Observatory:** The Allegheny Observatory Lab part of the course **always** runs from 7:00 - 11:00 pm on Monday nights even during cloudy weather. A bus will leave from the entrance to Allen Hall at 7:00 pm and return by 11:00 pm. However, history suggests that the weather on many of the Monday nights will not permit observations. Therefore, on up to five **clear** Thursday nights (to be announced by Observatory Assistant/Manager, Lou Coban, on CourseWeb and in class on Thursdays), a bus will be available to take students to Allegheny Observatory on the same schedule as Monday nights. These Thursday evening observing sessions will be optional and only take place when clear weather seems likely. The Allegheny Observatory work will be coordinated by John Stein, Melanie Good, and Lou Coban.

**Grading:** One half of the grade will be based on lectures and one-half will be based on Allegheny Observatory work.

There will be no in-class exams or final exam based on the 6:00 - 6:50 pm lectures. Instead, the lecture portion of the grade will be based on attendance and graded homework. You should only work together on homework after you have attempted to do the homework by yourself. Nominally, each of the ten listed lecturers will give a homework assignment that can be graded. All lecture homework questions will be posted on CourseWeb by the TA, Gen Sardane, and should be turned in to the TA by the announced date.

The projects and policy for grading the assignments at Allegheny Observatory will be announced separately on CourseWeb. The work will be coordinated and graded by John Stein, Melanie Good, and Lou Coban.

Arrangements for makeup work should be made in advance if possible. This should be done by emailing the relevant instructor. The TA, Gen Sardane, and Observatory Assistant/Manager, Lou Coban, should be copied on all emails regarding lecture homework and observatory assignment makeup work.

### **Tentative Lecture Topics During the 15-week Term:**

1. Turnshek and Hillier – Class organization, Intro – Jan 5 (Turnshek), 8 (Hillier)
2. D'Urso – Python – Jan 12, 15
3. Stein – Basics 1 – MLK off, Jan 22

4. Stein – Basics 2, 3 – Jan 26, 29  
(Basics include telescopes, mounts, coordinate systems (RA, Dec, LST), magnitude systems, fluxes, etc.)
5. Good – Observing Exoplanets at AO – Feb 2, 5
6. Rao – CCD Photometry – Feb 9, 12
7. Turnshek – UV/Optical Spectroscopy – Feb 16, 19
8. Sardane – The SDSS Imaging and Spectral Databases – Feb 23, 26
9. Sardane/Turnshek – Measurements of Galaxies and Quasars with SDSS data – Mar 2, 5
10. Spring Break (starts Monday Mar 9)
11. Hillier – Analysis of Stellar Spectra – Mar 16, 19
12. Kosowsky – Observations of the CMB – Mar 23, 26
13. Newman – Statistical Treatment of Data – Mar 30, Apr 3
14. Badenes – X-Ray Astronomy – Apr 7, 10
15. Left open for makeup lectures or other topics – Apr 14, 17

Friday Apr 17 is the last day of classes.

The email addresses for the ten Lecturers and for the Observatory Assistant/Manager, Lou Coban, are below. Office hours for consultation about the various lecture topics and the Allegheny Observatory work are by appointment. Please directly arrange appointments with the appropriate person by email.

Carles Badenes, [cbadenes@pitt.edu](mailto:cbadenes@pitt.edu)  
Lou Coban, [coban@pitt.edu](mailto:coban@pitt.edu)  
Brian D'Urso, [dursobr@pitt.edu](mailto:dursobr@pitt.edu)  
Melanie Good, [melanie.l.good@gmail.com](mailto:melanie.l.good@gmail.com)  
John Hillier, [hillier@pitt.edu](mailto:hillier@pitt.edu)  
Arthur Kosowsky, [kosowsky@pitt.edu](mailto:kosowsky@pitt.edu)  
Jeff Newman, [jnewman@pitt.edu](mailto:jnewman@pitt.edu)  
Sandhya Rao, [srao@pitt.edu](mailto:srao@pitt.edu)  
Gen Sardane, [gms48@pitt.edu](mailto:gms48@pitt.edu)  
John Stein, [jstein@pitt.edu](mailto:jstein@pitt.edu)  
Dave Turnshek, [davidt@pitt.edu](mailto:davidt@pitt.edu)

**Academic Integrity:** “Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries, telephones and programmable calculators.”

**Disabilities:** If you have a disability that requires special testing accommodations or other classroom modifications, you need to notify both the instructor and the Disability Resources and Services no later than the 2nd week of the term. You may be asked to provide documentation of your disability to determine the appropriateness of accommodations. To notify Disability Resources and Services, call 648-7890 (Voice or TTD) to schedule an appointment. The Office is located in 216 William Pitt Union.