Syllabus
ASTRON0086
Observational Astronomy
Spring 2016
(3 Units)

Instructor: **Dr. John W. Stein** **Teaching Assistant: Mr. Louis Coban**
Contact Info: jstein@pitt.edu coban@pitt.edu

Lecture Component:
Location: 105 Allen Hall
Time: 6:00 - 6:50 PM Mon & Thur

Observing Component
Location: Allegheny Observatory (Bus is provided to & from)
Time: 7:30-10:30 PM Mon & Thur (You sign up for **one evening only**)
Bus Departure: 7:05 From O'Hara entrance to Allen Hall

Class Dates:
Jan 07 - Apr 28

Materials:
Text: None. Readings/Study Guides are in Course Web

Course Description:

Catalog: This course is for students who have a desire to become familiar with the nature and motions of celestial objects in the night sky and techniques to observe them. The course will be given at a level suitable for both science and non-science majors who want to learn how to use a telescope and enjoy observational and practical astronomy.

More Specifically: The Department of Physics and Astronomy offers a number of introductory astronomy courses that satisfy science distribution requirements, this is one of them. These courses all cover the basic topics of introductory astronomy, but differ in the emphasis given to the various topics and in topics covered. The emphasis of this course is hands-on astronomical observing. It is the only course in the set in which the students actually are trained in the use of several of the telescopes located at the University's Allegheny Observatory (a 20-minute bus ride from campus).

Students learn to operate the telescopes, locate astronomical objects by their celestial coordinates, learn to use the Starry Night program to identify the objects seen in the

telescope's field of view, learn to use CCD cameras to image the objects observed through the telescope, learn to operate an image processor program (MIRA) and to use this program to enhance image detail, create tri-color images, create time-lapse movies of celestial events observed through the telescope and to measure the heights of lunar mountains based upon data gathered from moon images they have taken. Additional materials will be presented as needed.

Grading Policy:

Course grades will be based upon...

1. Test scores..... (40 points),
2. Starry Night Work, Image Processing Work..... (20 points),
3. Research Project Presentation..... (20 points),
4. Attendance at the observatory sessions..... (10 points)
5. In class quizzes (unannounced)..... (10 points)

Project scheduling will depend on the weather and cannot be specified in advance, quizzes will be given in most classes, the testing dates will be...

Test #1..... Feb 08 (Mon)
Test #2..... Mar 21 (Mon)
Test #3..... Apr 25 (Mon)

Presentations:

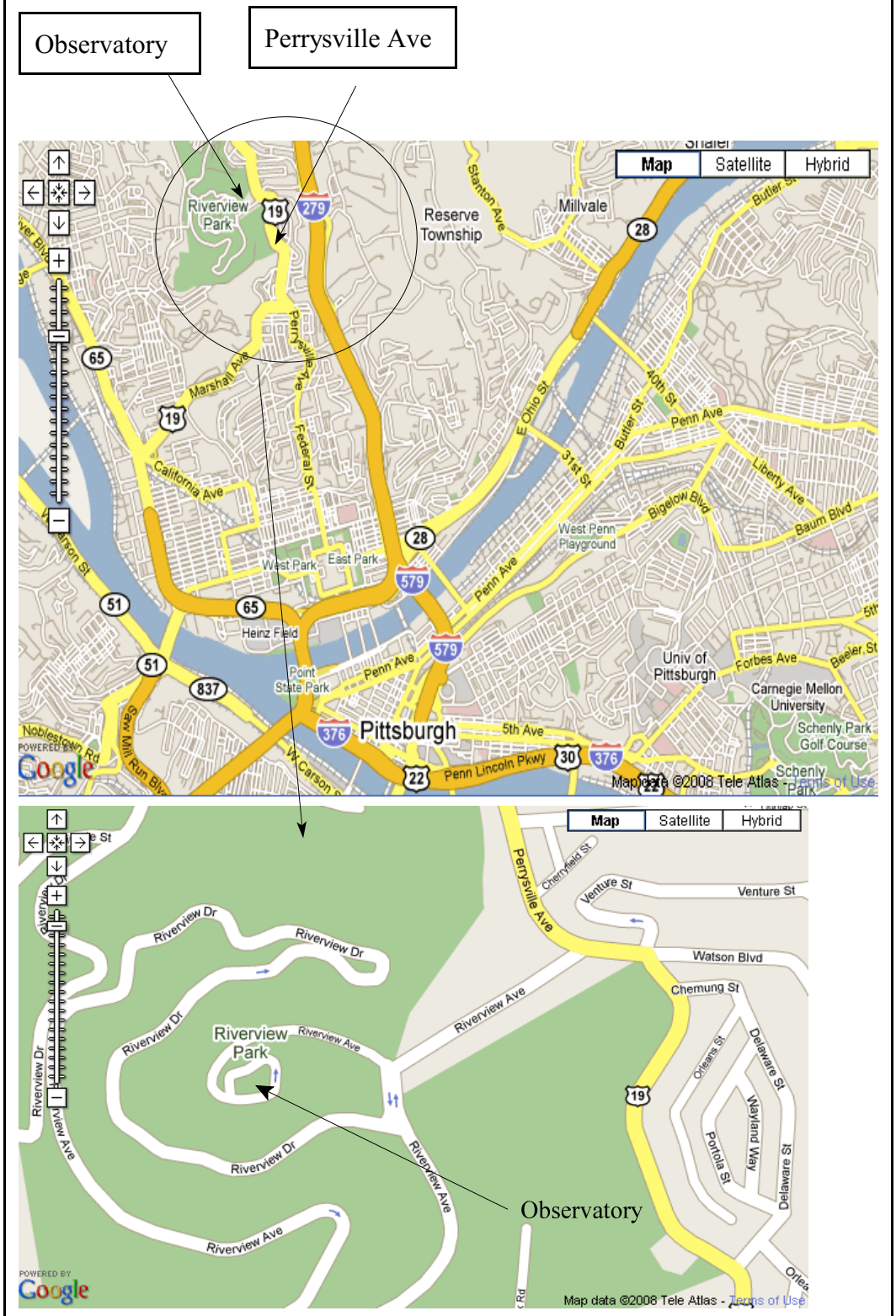
Project Presentations..... Apr 28 (Thur)

Your attendance at the observatory sessions is required. You are permitted one un-excused absence. Afterward 4 points will be deducted from your total course points for each additional observing session missed.

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

For Directions to the observatory, see the next page...


Observatory
Perrysville Ave
Map
Satellite
Hybrid
Riverview Park
Reserve Township
Millvale
Marshall Ave
Federal St
Perrysville Ave
California Ave
E Ohio St
Butler St
40th St
Penn Ave
31st St
Liberty Ave
Bigelow Blvd
Baum Blvd
West Penn Playground
West Park
East Park
Heinz Field
Point State Park
Penn Ave
Univ of Pittsburgh
Forbes Ave
Carnegie Mellon University
Schenly Park Golf Course
Pittsburgh
5th Ave
Penn Lincoln Pkwy
Schenly Park
Map data ©2008 Tele Atlas - Terms of Use
Google
Riverview Dr
Riverview Ave
Venture St
Watson Blvd
Chemung St
Orleans St
Delaware St
Wayland Way
Portola St
Observatory
Map data ©2008 Tele Atlas - Terms of Use