

Physics 304: Observational Astronomy

Professor: Lyle Hoffman

Fall 2014

In the event of inclement weather or other crises:

- Call professor's voice mail (610-330-5211) and check your email

Texts: no required text, but the following are available at the reserve desk in Skillman Library

- Kitchin, *Astrophysical Techniques*, 5th Ed., CRC Press 2009
- Burke & Graham-Smith, *An Introduction to Radio Astronomy*, Cambridge University Press 2010
- Bradt, *Astronomy Methods*, Cambridge University Press 2004
- Birney, Gonzalez & Oesper, *Observational Astronomy*, 2nd Ed., Cambridge University Press 2006

Requirements:

- Six projects
- Weekly tutorials with the instructor

Learning goals: Upon completion of this course, each student should:

- Understand the challenges involved in trying to observe the universe using the electromagnetic spectrum in its entirety;
- Understand the structure and function of telescopes and detectors used in each of the several wavebands;
- Understand the techniques of imaging, spectroscopy and astrometry;
- Have gained skill in problem-solving;
- Have gained an appreciation for the applicability of physics to scales of space and time far vaster than those encompassed by an individual human being.

Registrar's Mandatory Privacy Statement:

- Moodle contains student information that is protected by the Family Educational Right to Privacy Act (FERPA). Disclosure to unauthorized

parties violates federal privacy laws. Courses using Moodle will make student information visible to other students in this class. Please remember that this information is protected by these federal privacy laws and must not be shared with anyone outside the class. Questions can be referred to the Registrar's Office.

Federal Credit Hour Compliance Statement:

- The student work in this course is in full compliance with the federal definition of a four credit hour course.

Your grade will be based on your written reports for the 6 projects and your participation in the weekly tutorials.

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