

Astronomy 530/430  
Prof. Marla Geha  
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Class Web Page: <http://www.astro.yale.edu/mgeha/galaxies>

**Class Times/Dates**

Class will meet twice weekly from 10:30-11:45am in J. W. Gibbs 263 on Tuesdays and Thursdays. There will be classes during reading week (April 28/30).

**Prerequisites for Undergraduates**

PHYS 201b and MATH 120a or b, and one astronomy course numbered above 200.

**Course Description**

A survey of the content, structure, formation and evolution of galaxies. Topics include the contents of galaxies (stars, gas, and dark matter), galactic black holes, galaxy interactions and the environments of galaxies.

**Textbook**

Readings and assignments will be assigned from both *Galactic Astronomy* (Binney & Merrifield, 1998) and *Galaxies in the Universe* (Sparke & Gallagher, 2000).

**Evaluation**

Grading will be divided as follows:

- 40% Problem sets. There will be 4 to 6 sets in total which will be given out roughly every other week. I encourage interactions with other students on the problem sets, however the answers should be presented in your own words and style.
- 30% Midterm exam: in class on April 14, 2009.
- 30% Student presentations. See below

**Student Presentation**

This course is a survey of galaxies and there are many topics which I cannot cover in detail. Student presentations will supplement the course materials and talks will be spread throughout the semester. Each student will give one 25-minute presentation (plus time for questions) on a major topic. In order to incorporate these 'mini-lectures' into class, next week I will hand out a list of topics and the schedule of talks which will begin in class Feb 10. Topics must be chosen the following class and will be done on a first come/first serve basis. A one-page outline of the talk will be due one week before the scheduled talk.