

ASTR 151 - Doing Astronomy

Time and Location: M 4:00-4:50pm, Sears 552

Instructor: Professor Stacy McGaugh

- Office: Sears 573
- E-mail: stacy.mcgaugh [at] case.edu

Website: <http://astroweb.case.edu/ssm/astr151/>

Grading: This course is pass/fail. A passing grade will be earned if you do the following things:

- Attend. (More than 2 unexcused absences will be grounds for failure.)
- Participate in discussion (Active participation is required for a passing grade).
- Do the readings before class.

Weekly Homework Assignment: Before class, read the reading assignment and write down [at least] one question or comment for class discussion. These questions will be turned in at the end of the class period.

Tentative Topic List and Reading Assignments

Jan 12	Intro, welcome, etc (no reading assignment) <ul style="list-style-type: none">• Drake's Equation
Jan 19	<i>MLK day --- No class</i>
Jan 26	Will SETI Work? <ul style="list-style-type: none">• Two SETI Articles from Mercury magazine, October 2002
Feb 2	Pluto: Planet or not? <ul style="list-style-type: none">• What is a Planet? (Scientific American, January 2007)• Pluto in the press (various newspaper sources)
Feb 9	Asteroid Impacts: Ready or Not? <ul style="list-style-type: none">• Collisions with Comets and Asteroids, Scientific American, March 1996• The Most Dangerous Asteroid Ever Found, Sky and Telescope, November 2006• Little Asteroid Makes a Big Splash, Sky and Telescope News, October 9, 2008• If an Impact Looms, Then What?, Sky and Telescope News, November 11, 2011• The Chelyabinsk meteor: Big rocks do fall from the sky. Fast and hard.
Feb 7	Dark Energy and the Fate of the Universe <ul style="list-style-type: none">• What's Inflating the Universe?, Sky & Telescope, February 2009• Will Dark Energy Tear the Universe Apart?, Astronomy, February 2009
Feb 23	Dark Matter or Alternative Gravity? <ul style="list-style-type: none">• Dark Matter in the Universe, Scientific American 1998• Battlefield Galactica, Sky and Telescope, April 2007

Mar 2	The Faint Outer Regions of Spiral Galaxies <i>Research Presentation by doctoral candidate Aaron Watkins</i>
Mar 9	<i>Spring Break --- No class</i>
Mar 16	Galactic Archaeology <i>Research Presentation by Prof Heather Morrison</i>
Mar 23	Stellar Spectroscopy and Chemical Abundances <i>Research Presentation by Prof Earle Luck</i>
Mar 30	Galaxy Collisions and Clusters of Galaxies <i>Research Presentation by Prof Chris Mihos</i>
Apr 6	Planes of Galaxies in the Local Group <i>Research Presentation by Dr Marcel Pawlowski</i>
Apr 13	Evolution of Dwarf Galaxies <i>Research Presentation by Dr Federico Lelli</i>
Apr 20	Astronomical Research in Large Collaborations: SDSS and Kepler <i>Research Presentation by Dr Paul Harding</i>
Apr 27	Astronomy and Public Outreach <i>Presentation by Jason Davis, Cleveland Museum of Natural History</i>

Other Items of Interest:

- [Careers in Astronomy](#), The American Astronomical Society
- [Career Profiles of Astronomers](#), The American Astronomical Society
- [Stellarium](#) planetarium software package (freeware)