Astronomy 111: Overview of Modern Astronomy—Autumn 2013, Sec. 501 & 502

**Course Description:** This course will cover the roots of modern astronomy, the scientific method, fundamental physical laws, the nature and formation of planets, stars, and galaxies, and an introduction to cosmology. The course includes an integrated laboratory that reinforces concepts learned in lecture and includes supplemental information related to the lecture topics, including hands-on experience with telescopes and digital imaging of celestial objects. This course is not open to students who have taken ASTR101 or ASTR314.

**Prerequisites:** None. Course uses basic (high school level) algebra and geometry.

**Course Content:** 3 Lecture hours and 2 Laboratory hours each week (4 credit course).

**Course Objectives:** By the conclusion of this course, students should be able to:
- Explain the scientific process and how scientific theories are developed and tested.
- Recall basic physical concepts such as gravitational and conservation laws, and how light and matter interact.
- Describe the general characteristics of our solar system and the universe.
- Apply scientific thinking to the natural world to understand, e.g. what powers the sun, why galaxies differ, and how the universe began.
- Formulate a scientific hypothesis, identify a testable prediction, verify by carrying out an experiment, and assess the results.
- Work effectively in a laboratory group.

**Logistics**

Lecturer: Prof. D. DePoy (depoy@physics.tamu.edu)
Office number: 979-862-2082
“Astronomy 111 Handbook” (available at Notes & Quotes)
Lectures: Tuesdays and Thursdays 9:35am - 10:50am in MPHYS 213
Office hours: Please email or call me to request an appointment at any time.
TA: Brett Salmon, salmon@physics.tamu.edu
TA office hours: M-F 1pm-5pm in MIST 326
Note: There are also Lab TAs responsible for Lab activities. Their names and availability will be presented at your lab section time/place.
Class Website: [http://faculty.physics.tamu.edu/depoy/astro111.html](http://faculty.physics.tamu.edu/depoy/astro111.html)
Laboratory Coordinator: Dr. J. Marshall, marshall@physics.tamu.edu

**Lab sections meet starting the second week of class in MPHYS 331.**

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<thead>
<tr>
<th>Section</th>
<th>Day</th>
<th>Time</th>
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<tbody>
<tr>
<td>501</td>
<td>Monday</td>
<td>4:10pm - 6:10pm</td>
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<tr>
<td>502</td>
<td>Tuesday</td>
<td>12:45pm - 2:45pm</td>
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Bring the lab handbook and a sturdy lab notebook with you to each lab session.
Grading

Grades will be calculated as follows:

- On-line pre-lectures and associated questions and in-class exercises will count for 10% of the final course grade.
- Three Mid-term Exams (45%): Fill-in the blank and essay questions.
- Final Exam (20%): Fill-in the blank and essay questions.
- Laboratory (25%): 10 labs completed over the course of the semester.

Approximate Grading Scale:
A (>90%), B (80–89%), C (70–79%), D (60–69%), F (<60%)

Your Responsibilities

Texas A&M University assumes that all students enroll in its programs with a serious learning purpose and expects them to be responsible individuals who demand of themselves high standards of honesty and personal conduct. All students are expected to behave at all times with respect and courtesy toward their fellow students and instructors and are to have the highest standards of honesty and integrity in their academic performance. Any behavior that disrupts the classroom learning environment or any attempt to present work that the student has not actually prepared as their own work, or to pass an examination by improper means, is regarded as a serious offense.

The minimum penalty for such an offense is a failing grade for this course. Aiding and abetting the above behavior is also considered a serious offense resulting in equally severe penalties. The Honor Code sets Texas A&M apart from other universities, and you should be proud of this standard. I expect that you will abide by the Aggie Academic Integrity Statement and Policy:

An Aggie does not lie, cheat or steal, or tolerate those who do.

Further information regarding the Honor Council Rules and Procedures may be found on the web at http://www.tamu.edu/aggiehonor/.

ADA Policy

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. Visit http://disability.tamu.edu for additional information.