

ASTRONOMY 301

Introduction to Astronomy

Fall 2010 Unique No. 47655 | TTh 12:30-2:00 | WEL 3.502

PROFESSOR

Don Winget

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TEACHING ASSISTANTS

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TEXTBOOKS (These texts are not required for this course, but are highly recommended.)

Recommended: **The Cosmos: Astronomy in the New Millennium, 3rd Ed.**, by Pasachoff and Filippenko

An excellent and accessible textbook. A used copy is \$40 cheaper and equally valuable.

Recommended: **Astronomy: A Visual Guide**, by Mark A. Garlick

A beautiful yet simple illustrated guide to the cosmos, featuring stunning photographs and illustrations.

While not stocked at the University Co-Op, several used copies can be found at Half Price Books. New copies are available at most bookstores, and are \$30 on amazon.com.

LEVEL OF COURSE

This course is a descriptive survey of the field of astronomy. I will not emphasize mathematics. However, an understanding of basic algebra will be helpful. The course will provide you with a perspective on the universe: its scale, structure, contents, and evolution.

EXAMS AND GRADES

There will be a total of four in-class exams. Your grade will be determined from the best three exam scores, weighted 25% each. Three homework assignments, equally weighted, will constitute 15% of your overall grade. An astronomical observing assignment will account for an additional 10%. You will have an optional semester project, on a topic of your choosing, to replace your lowest exam score; the topic must be approved by JJ or me in advance of the announced topic deadline. As a result of this policy, **we do not give make-up exams.**

OPTIONAL SEMESTER PROJECTS

The optional semester project is very open-ended, but should relate astronomy to something you are passionate about. For example, past students have submitted films they produced, written one act plays with the planets as anthropomorphic characters, written lesson plans for kindergarten classes, written position papers about colonizing other planets, and have made films with sock puppets. The deadline for optional semester project approval is Thursday, 30 September 2010. Please double check with JJ or me to make sure that we actually have your topic written down and not just simply verbally approved.

The **firm** deadline for turning in projects is Tuesday, 30 November 2010. You may turn them in during class or during our office hours. You are free to submit your project earlier than the firm deadline.

The projects will take about a week to grade. Project grades will be posted on Blackboard, or you can email the TAs (be sure to include your UTEID). After they are graded, the projects will most likely end up in my office or the lab for safe keeping. You can pick them up from JJ or me.

DUMB QUESTIONS

There is no such thing as a dumb question. **Ask!!**

TENTATIVE TEST SCHEDULE

The following is a tentative schedule of the four multiple-choice exams. There will be a review held in the classroom the evening before each exam.

Exam 1	Sep. 16
Exam 2	Oct. 7
Exam 3	Nov. 2
Exam 4	Dec. 2

TENTATIVE COURSE OUTLINE

Week 1 (8/26)	Course Introduction; A Tour of the Universe	
Week 2 (8/31, 9/2)	The History of Astronomy; Basic Concepts	
Week 3 (9/7,9)	The Earth and Moon	
Week 4 (9/14,16)	The Earth and Moon	Exam 1
Week 5 (9/21,23)	The Terrestrial Planets	
Week 6 (9/28,30)	The Jovian Planets	
Week 7 (10/5,7)	Pluto; Comets; Solar System Formation	Exam 2
Week 8 (10/12,14)	Light, Matter, and Energy	
Week 9 (10/19,21)	Light; Telescopes	
Week 10 (10/26,28)	Stars and Their Radiation	
Week 11 (11/2,4)	Stellar Classification	Exam 3
Week 12 (11/9,11)	Star Formation; How Stars Shine	
Week 13 (11/16,18)	The Death of Stars; Black Holes; Star Clusters	
Week 14 (11/23)	Galaxies; Active Galactic Nuclei; Supermassive Black Holes	
Week 15 (11/30,12/2)	The Big Bang; Cosmology	Exam 4