

Earth Sciences 115: Descriptive Astronomy

Instructor: Matthew W. Younce, M.S.
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Office Hours: Office hours will be by appointment. E-mail may be your best bet.

Class Schedule: Lecture: MTWR 10:15 - 12:15 WSC 101 or STN 162
Lab: TWR 2:00 - 5:00 WSC 103 or STN 157

Textbook: Astronomy Today, 5th Edition, by Chaisson & McMillan. Prentice Hall.
ISBN 0-13-144596-0.

Catalog Description:

Problems in astronomy will be presented on a fundamental level and will serve to demonstrate how scientific principles are established, how these principles are sometimes revised or disproved by new data and methods, and how observations of the universe can be used by people to learn more about their place in the cosmos. A lecture and laboratory course. 4 hours.

Objectives:

After completing this course, the successful student should be able to:

1. Apply the scientific method to the Earth Sciences.
2. Identify major astronomers of the past, and what they are famous for discovering or doing.
3. Differentiate between terrestrial and jovian planets.
4. Recognize the difference between and composition of solar systems, nebulae, and galaxies.

Attendance Policies:

It is highly recommended you attend all lectures, since not all material will be covered in the reading. If you are absent from a lecture, it is recommended you speak to a fellow student or the instructor to find out what was missed and add it to your notes. If you are absent from lab, there are no make-ups.

If the absence is excused, either due to a university sponsored event, any emergency or illness, that week's lab grade will be exempted from your lab average. You have one week to present appropriate documentation, or the grade will be recorded as an unexcused absence. If the absence is unexcused, a 0 will be recorded for the lab. After the third absence from lab, any additional absences will be recorded as a 0, whether excused or unexcused.

If you are absent from the class on the day of the mid-term, you will not be given a make-up test. Instead, your final exam will count for both grades.

Grading Policy:

Your grade in the class is based on 3 grades: the Mid-Term exam, the Final Exam and your lab average. Your grade is computed as follows:

$$(\text{Mid Term} + \text{Final Exam} + \text{Lab Average}) \div 3 = \text{Final Grade}$$

$$\begin{array}{l} 90 - 100 = A \quad 85 - 89 = B+ \quad 80 - 84 = B \quad 75 - 79 = C+ \\ 70 - 74 = C \quad 60 - 69 = D \quad \text{Below } 60 = F \end{array}$$

Opportunities for bonus credit may occur through guest lecturers, video assignments or additional work. Announcements will be made by the instructor in class if these opportunities arise.

Miscellaneous Classroom Policies:

Math and English Statements

It is assumed you can read and perform simple algebraic calculations at the freshman college level. A scientific calculator is recommended, but not required. One will not be provided.

You will be responsible on all writing opportunities for correct spelling and grammatical use of any and all terms learned in the course, as well as other language skills.

Honor Code

I pledge myself to neither give nor receive aid during tests or for any individual assignments or papers, nor to use any information other than that allowed by the instructor. I further pledge that I will not allow to go unreported to the proper persons any violation of the Honor System and that I will give true and complete information to the Honor Council.

On any graded assignment, you are under the honor code. Labs may be done with partners, but tests are to be entirely your own work. On tests, once the first student leaves the classroom, no students will be allowed to enter late and begin the test.

Reasonable Accommodations

Students with a documented disability should inform the instructor at the close of the first class meeting or as soon as possible. If you are not registered with Disability Services, the instructor will refer you to the Student Support Services office for consultation regarding documentation of your disability and eligibility for accommodations under ADA/504. In order to receive accommodations, eligible students must provide the instructor with a Faculty Accommodation Form from Disability Services. Students must return the completed and signed form to the Disability Services office on the 3rd floor of the Connell Student Center.

Students with a documented disability who do not wish to use accommodation are still strongly encouraged to register with Disability Services and complete a Faculty Accommodation Form each semester. For further information, please contact Disability Services at 301-2778 or visit the website at http://www.mercer.edu/stu_support/swd.htm.

University Portable Telephone Policy

Out of courtesy for all those participating in the learning experience, all portable telephones and pagers must be turned off before entering any classroom, laboratory or other formal academic or performance event. The instructor reserves the right to confiscate any phone/pager used in class.

Lecture Schedule

<u>Date</u>	<u>Text</u>	<u>Lecture Topic</u>
M May 22	Ch 1	Introduction to Astronomy
T May 23	Ch 1	Introduction to Astronomy (Cont'd)
W May 24	Ch 2	History of Astronomy
R May 25	Ch 5	Telescopes
M May 29	NO CLASS	Memorial Day Holiday
T May 30	Ch 16	The Sun
W May 31	Ch 7-10	Inner Planets
R June 1	Ch 7-10	Inner Planets (Cont'd)
M June 5	Ch 11-14	Outer Planets
T June 6	Ch 11-14	Outer Planets (Cont'd)
W June 7	Ch 11-14	Outer Planets (Cont'd)
R June 8	---	Mid-Term Exam
M June 12	Ch 17	Stars
T June 13	Ch 18	Interstellar Medium
W June 14	Ch 19-20	Stellar Formation & Evolution
R June 15	Ch 19-20	Stellar Formation & Evolution (Cont'd)
M June 19	Ch 21-22	Stellar Death
T June 20	Ch 23-24	Galaxies
W June 21	Ch 26	Cosmology
F June 23	---	Final Exam

Lab Schedule

Topics will be announced in lab. Calendar of lab dates:

- Week 1: May 23, May 24, May 25
- Week 2: May 30, May 31, June 1
- Week 3: June 6, June 7, June 8
- Week 4: June 13, June 14, June 15
- Week 5: June 20, June 21

Events could require changes in this schedule. You will be notified in advance if this occurs.