

PHY 216 – Astronomy Syllabus

Credit

3 semester hours

Prerequisites

None

Course Description

History, methods, solar system, stars, and cosmology; presented on an introductory level.

Rationale for Course:

Astronomy is the most ancient of the sciences, yet at the same time, at the forefront of modern application and new information. In addition, this course presents astronomy as a case study on science for the non-scientist. It distinguishes between observation and theory, between evidence and conclusion. The goal is for students to understand how science creates, tests, improves, or discards models of natural phenomena and thus more closely approximates a complete understanding of natural processes.

Learning Objectives.

- The student will understand the movements of celestial objects and the reasons for the model of the universe accepted.
- The student will understand the structure and development of the Solar System.
- The student will understand the structure of Our Galaxy and our sun's place in it.
- The student will understand cosmology and current theories.

Course Outline

- Motions of celestial objects we observe.
- Ptolemaic & Copernican theories.
- Light and telescopes.
- Earth & moon.
- The other planets and their moons.
- Asteroids, meteoroids, and comets.
- The Sun.
- Characteristics of stars.
- Life cycles of stars.
- The Milky Way Galaxy.
- Other galaxies and quasars.
- Cosmology.

Method of Instruction

Lectures and demonstrations.

Required Text

Discovering the Universe, Comins & Kaufmann, 5th edition.

Grading

There will be three tests of 100 points each and a comprehensive final examination which counts 200

points. The course grade is determined from the percentage of points earned out of the 500 points.

Scale:	Grade	Final Average
	A	90–100
	B	80–89
	C	70–79
	D	60–69
	F	0–59

Makeup Tests

Makeup tests will be given only under the following circumstances:

- Consent of the instructor has been obtained prior to the test.
- An excused absence is obtained from a doctor or the Vice–President for Academic Affairs

Dropping the Course

Refer to the Mississippi College Academic Calendar for the final drop date for the course. Drops after this date will only be permitted for extreme circumstances and will require approval from the course instructor, department chair, Dean of the School of Science and Mathematics, and the Vice–President for Academic Affairs.

Academic Integrity

Mississippi College students are expected to be scrupulously honest. Dishonesty, such as cheating or plagiarism, or furnishing false information, including forgery, alteration or misuse of University documents, records or identification, will be regarded as a serious offense subject to severe penalty, including, but not limited to, loss of credit and possible dismissal. See the *Mississippi College Student Handbook* or University Policy 2.19 for specific information regarding penalties associated with dishonest behavior at Mississippi College. Copies of the *Mississippi College Student Handbook* are available in the Office of the Vice President for Enrollment Management and Student Affairs, Nelson 313. Copies of University policies are available on the Mississippi College web site.

Attendance Policy

Class attendance/participation is an essential part of university education, and students are expected to attend/participate regularly and punctually in all classes and laboratories. The responsibility for any work missed as the result of an absence rests entirely with the student. Cumulative absences/nonparticipation may result in a lowered grade or loss of credit for the course. Tardiness is also subject to penalty, as is any failure to complete required class work on time. A student will receive a grade of F immediately upon accumulating the following number of absences, whether excused or unexcused:

- 12 in semester classes meeting three times per week
- 8 in semester classes meeting two times per week

If a student misses more than the number of class periods specified in university policy and believes that there are reasonable explanations for the absences, he/she may appeal the absences to the Dean of the School of Science and Mathematics.

Early Alert System

Mississippi College has adopted the practice of finding students early in the semester who may be exhibiting behaviors that could ultimately have a negative impact on their academic progress. These behaviors are often called “red flag” behaviors and include, but are not limited to, excessive absences, poor test grades, and lack of class participation or evidence of non–engagement. Identifying these

behaviors early gives the instructor the opportunity to raise the “red flag” on behalf of a particular student so that the student can take the appropriate action to redirect his/her progress. The system alerts the student, the student’s advisor, and the Office of Student Success.

These messages are intended to help a student recognize an area of concern and to encourage him/her to make some choices to improve the situation. When a student receives an Early Alert message, the student should quickly make an appointment to talk with his/her professor about the situation. Also, students can make full use of the Office of Student Success to set academic goals and connect to campus resources.

Students with Disabilities

In order for a student to receive disability accommodations under Section 504 of the Americans with Disabilities Act, he or she must schedule an individual meeting with the Director of Student Counseling Services immediately upon recognition of their disability (if their disability is known they must come in before the semester begins or make an appointment immediately upon receipt of their syllabi for the new semester). The student must bring with them written documentation from a medical physician and/or licensed clinician that verifies their disability. If the student has received prior accommodations, they must bring written documentation of those accommodations (example Individualized Education Plan from the school system). Documentation must be current (within 3 years).

The student must meet with SCS face-to face and also attend two (2) additional follow up meetings (one mid semester before or after midterm examinations and the last one at the end of the semester). Please note that the student may also schedule additional meetings as needed for support through SCS as they work with their professor throughout the semester. Note: Students must come in each semester to complete their Individualized Accommodation Plan (example: MC student completes fall semester IAP plan and even if student is a continuing student for the spring semester they must come in again to complete their spring semester IAP plan).

Student Counseling Services is located on the 4th floor of Alumni Hall) or they may be contacted via email at mbryant@mc.edu . You may also reach them by phone at 601-925-7790. Dr. Morgan Bryant is director of MC Student Counseling Services.