

AST F301, Introduction to Astronomy

Course Description — Summer 2013, First Term (Unique number 89255)

Instructor: Dr. Michel Breger
Dept. of Astronomy, Univ. of Texas
Office: RLM 17.316 --- Tel.: 471 5758
Office hours: MTWThF: 1 – 3 pm

Lecture Time: MTWThF 10 – 11:30 AM

Lecture Location: RLM 15.216B

Optional Textbook: “The Essential Cosmic Perspective”
by Bennett et al. (6th Edition)

Course Description: AST 301 is an introductory course on astronomy for non-science majors. No previous course on astronomy is required. The main topics of the course are:

- ◆ The solar system – the planets and their moons, asteroids, comets.
- ◆ Stars and stellar evolution – star birth and the formation of planets, and star death, including neutron stars, black holes, supernovae.
- ◆ Galaxies – normal and not-so-normal galaxies, quasars and supermassive black holes, dark matter.
- ◆ Cosmology – the expansion of the universe, its origin in the Big Bang, dark energy and the future of the universe.

The course emphasizes the physical processes at work in the universe and the methods we use to learn about the universe. We will use high-school level algebra.

Syllabus: The material covered is found in the optional textbook (chapters 1 to 17). You will not be examined on any material omitted in class.

Course Organization and group meetings: The lectures, lecture notes and the Thursday group activities are the primary source of course content. The instructor is assisted by a number of undergraduate students who recently successfully completed the course. Each tutor will work with a group of about six students during the Thursday class times. These group meetings will discuss the astronomical material and apply the knowledge to simple problems. I will advise and supervise the different groups during these meetings.

Grade: The grade will be determined from your scores on the pop tests and the final examination, if you have to take it, as well as the scores from the Thursday group activities. More details will be made available during the first day of class.

Pop Tests: There will be four unannounced tests lasting between 30 and 45 minutes. Each test will cover the material discussed since the previous test. The final examination will count as much as one pop test. The overall grade will be determined from the best three grades. *If you have passed all four pop tests, you have the option to skip the final examination.*

Homeworks: There are no homeworks. However, you are strongly urged to look over the material covered in class on a daily basis. Remember the important pop tests!