College of Arts and Sciences  
Department of Earth and Space Sciences  
Fall 2014  
Space Science, SPSC 1401-01  
Dr. Jordan  
Geology, 113A  
Office Hours, MF 9:00-12:00am, M 2:00-4:00pm  
880-8211  
jim.jordan@lamar.edu

Required Materials:

**Textbook:** “Your Cosmic Context: An Introduction to Modern Cosmology” 2009 1st Edition, Duncan and Tyler  
**Non-textbook materials:** Lectures will be supplemented by Power Point presentations. These will be posted as PDF files on Blackboard. Also, geometry, math, notation, and table examples will be posted as Word or Excel files.  
**Supplies needed:** Pencil, good eraser, calculator (not any devices with text messaging capabilities)

Course Description and Requirements:  
There are two populations of students in this class: SPSC 1401 and GEOL 4390. SPSC 1401 is a lab-based core-curriculum approved introductory course to space science. GEOL 4390 is a lecture only course with the same lecture content as SPSC 1401. The lecture for both courses meets in GE 101 on TuTh, 12:45-2:05pm. Labs for SPSC meet separately in room GE 213 on the following days and hours: Tu: 2:10-4:10pm, W: 10:00-12:00am, Th: 2:10-4:10pm. You should be only enrolled in one of these labs if you are enrolled in SPSC. You are not required to attend labs if you are enrolled in GEOL 4390.

Course Objectives and Student Learning Outcomes:  
This course is intended to provide a basic understanding of many aspects of the science of space exploration, including discovering the physical make-up of the universe and evidence surrounding its origin, learning the discoveries made in the solar system and evidence surrounding its origin. Students will learn: (1) critical thinking skills through use of the scientific method to recognize the differences between these approaches and other methods of inquiry regarding understanding the universe revealed through space exploration such as use of scientific notation and units of measurement, (2) empirical and quantitative skills through use of known physical laws, the equations describing the laws, scientific notation and units of measurement (3) oral, written, visual communication, and teamwork through lab activities.

Grading Policy:  
There will be three exams based entirely on the lecture material Exam 1, 2, and Final Exam. There will be 50 multiple choice questions on the material covered for Exam 1 and Exam 2. Exam 2 will only cover material since Exam 1. The Final Exam will be comprehensive including
material from Exam 1 and Exam 2, and after Exam 2. There will be 75 multiple choice questions on the Final Exam.

The Exam component of your course grade will be 0.6x (average of Exam 1 & Exam 2)+0.4x(Final Exam).

**Lab for SPSC 1401:**
There will be 10 lab sessions. You will be required to complete the lab exercises correctly and you will receive 100% credit, or 10 points per lab. The grade you receive in lab will constitute 25% of the course grade. If you miss more than two labs you must drop the course.

Course Grade for SPSC 1401:
The course average for SPSC1401 is calculated as follows: 0.75x(Exam average, as above)+0.25x(Lab Grade). The letter grade will be based on the course average: \( >= 90 \text{ A}, 80-89 \text{ B}, 70-79 \text{ C}, 60-69 \text{ D}, \text{ and } <60 \text{ F}. \)

**Attendance Policy:**
Attendance in lecture will also be recorded. The method of recording attendance will be as follows: There will be ten one-question exams, given at random throughout the semester. The questions come from the topic of the day or this syllabus and you will be allowed to search the book or notes for the answer (open book, open notes). More than 3 unexcused absences based on the number of exams taken will result in a decrease of one letter grade for the course.

**Census Date** (Six Drop Rule does not apply)
*Monday, February 4: Census Date/12th Class Day.* Students may drop or withdraw without consulting with their Instructor, Department Chair or the Records Office. The Six Drop Rule does not apply to students who drop before 5:00p.m. on February 4.

**Drop Dates** (Six Drop Rule applies)
*Tuesday, February 19: Last day to drop or withdraw from the course without academic penalty and receive a Q. Six Drop Rule applies beginning on February 5. Students should consult with Instructor and the Records Office to initiate a drop between the dates of 2/5-2/19.*
*Tuesday, April 2: Last day to drop or withdraw with academic penalty. Student must be passing the course at the time of the requested drop in order to receive a Q. The drop form, including all required signatures, must arrive in the Records Office by no later than 4:00p.m. on April 2. Six Drop Rule applies.*

*Note: Any student seeking to drop after April 2 must submit a fairly thorough written explanation, including supporting documents if applicable, of the extenuating circumstances for which the action is being requested. The explanation must be shared with and approved by the Instructor, the Department Chair, and the Dean of the college before the drop form will be sent to the Senior Associate Provost for a final review and decision.*

*Link to List View of Academic Calendar*
http://events.lamar.edu/academic-calendar-listing.html
Disability Accommodation
It is the policy of Lamar University to accommodate students with disabilities, pursuant to federal and state law and to the University’s commitment to equal educational opportunities. Students with a documented disability should contact the Director of the Office of Services for Students with Disabilities (SFSWD) which is located in 105 Communication Building. Students may write to P.O. Box 10087, Beaumont, Texas 77710, call 409.880.8347, fax 409.880.2225 or e-mail SFSWD@lamar.edu. The Director will arrange to meet with the student to determine reasonable academic adjustments and/or accommodations. Additional information is available at http://dept.lamar.edu/sfswd.

Academic Honesty
Students are specifically warned against all forms of cheating and plagiarism. The Lamar University Student Handbook clearly reads: “Any student found guilty of academic dishonesty in any phase of academic work will be subjected to disciplinary action. Punishable offenses include, but are not limited to, cheating on an examination or academic work which is to be submitted, plagiarism, collusion, and the abuse of source materials.” One aspect of the Handbook’s definition of cheating includes “purchasing or otherwise acquiring and submitting as one’s own work any research paper or other writing assignment prepared by an individual or firm.” Plagiarism is defined as “the appropriation and the unacknowledged incorporation of another’s work or ideas into one’s own and submitted for credit.” Faculty members in the College of arts and Sciences investigate all cases of suspected plagiarism. Any student who is found guilty of academic dishonesty in this course will….

Syllabus:

**August**
26-28 Introduction Chapter 1

**September**
2 The Sky Chapter 2
4-9 Heat and Light Chapter 3
11-16 Motion and Gravity Chapter 4
18-23 Clues about the Cosmos, **Exam 1** Chapter 5
25-30 Spacetime, Expanding Universe Chapter 6,7

**October**
2-7 The Nuclear Realm Chapter 9
9-14 The Big Bang Theory Chapter 10
16-21 The Origin of the Solar System Notes
23-28 A Description of the Solar System Notes
30 **Exam 2**

**November**
4-6 The Emergence of Complex Life and SETI Chapter 13 & Notes
11-13 Space and Planetary Environments and the Human Condition Notes
18-20 Space Exploration, History Notes
25-27 Space Exploration, Future Notes

**December**
2 Review
December 11: Final Exam 11:00-1:30

Link to Final Exam Schedule
http://www.lamar.edu/_files/documents/current-students/course-schedules/Spring%202013%20Final%20Exam%20Schedule.pdf