

ASTRONOMY 1446
Spring 2015

Instructor: Dr. Suman Satyal
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Office Hours: Thursdays 4:00–5:00 PM, or by appointment

Section Information: ASTR 1446 003

Time and Place of Class Meetings: Science Hall, 101, Tuesday-Thursday 5:30 PM – 6:50 PM

Description of Course Content:

- Understanding the Stars:
 - Characterize the stars, The birth and life of stars,
 - The death of stars, formation of black holes
- Understanding the Universe:
 - Galaxies and our home galaxy, Milky Way
 - Quasars, Cosmology and Astrobiology

Student Learning Outcomes:

Learn the basic characteristics, birth and death of various sized Stars in the galaxies. The extraordinary behavior of heavier stars when they suffer gravitational collapse. The course material will provide a descriptive treatment of our Galaxy and the galaxies around the world. Understand the minimum requirement for the possible biological evolution outside our home planet.

Required Textbooks and Other Course Materials: Discovering the Universe, Ninth Edition
by N.F. Comins & W.J. Kaufmann III

Examinations: Test I: February 17, 2015
Test II: March 26, 2015
Final Exam: April 30, 2015

Attendance: Students are highly encouraged to attend the class. Pop quizzes and extra credit problems will be assigned randomly throughout the class period that will be added into the Tests score.

Other Requirements: Laboratory

Grading:	Homework	20%
	Laboratory	20%
	Test I	20%
	Test II	20%
	Final Exam	20%

A: (90-100), B: (80-89), C: (70-79), D: (60-69), F: (59 or less)

If you wish to make an apple pie from scratch, you must first invent the Universe –Carl Sagan

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/aao/fao/>).

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Academic Integrity: Students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Lab Safety Training: Students registered for this course must complete all required lab safety training prior to entering the lab and undertaking any activities. Once completed, Lab Safety Training is valid for the remainder of the same academic year (i.e., through the following August) and must be completed anew in subsequent years. There are no exceptions to this University policy. Failure to complete the required training will preclude participation in any lab activities, including those for which a grade is assigned.

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this

account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which are located at the back and front of the class room. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

Librarian to Contact: Mary Jo Handke is the Physics Librarian. She can be reached at (817) 272-3000, ext 4979 and by email at handke@library.uta.edu. Other physics information is found on the web site www.uta.edu/library/research/rt-phys.html

Course Schedule:

Month	Day	Activity	Course Content
January	20	Introduction	
	22,27	Chapter 11	Characterizing Stars
	29, 3	Chapter 12	Birth of Stars
February	5	Chapter 13	The Death of Stars
	10		
	12	Review Test 1	
	17	Test 1	
	19	Chapter 14	
	24		Blackholes: Matters of Gr
	26	Planetarium Show	Blackholes

March	3	Chapter 15	The Milky Way Galaxy
	5	Chapter 15	
	10	Spring break	
	12	Spring Break	
April	17	Chapter 16	Galaxies
	19		
	24	Review Test 2	
	26	Test 2	
	31	Chapter 17	Quasars
	2	Chapter 17	Quasars
	7	Chapter 18	Planetarium
	9	Chapter 18	Cosmology
	14		Cosmology
	16	Chapter 19	Astrobiology
	21	Astrobiology	
	23	Make up lecture	
	28	Review final exam	
	30	Final Exam	

“As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. –Suman Satyal.”