



SYLLABUS

Spring 2018

Online Course: SCIE 3304, Sections 006 (ASTRONOMY)

This syllabus provides a general plan for the course; if there are any deviations, you will be notified.

Instructor's Information

Name: Dr. Nilakshi Veerabathina (My on-campus students address me as Dr. Nila; pronounced as Neela)

Telephone: 817-272-1837 (Call only during business hours. Please note the phone is not equipped to receive the voice messages. If I am not in my office, it will just keep ringing.)

Email: Please use the email option available on the Blackboard. I will be checking my e-mails mainly on working days during business hours and occasionally over the weekends. I will try to get back to you within 24 hours.

Mailbox: 19059

Office Hours: Since this course is online, you will most easily find me by email. I would encourage you to see me if you happen to come to UT Arlington campus. I am located in room 120c Science Hall. Please check with me about my availability before coming though. I'll also be available other times by appointment.

Course Duration

Spring 2018 dynamic dated semester: From Monday, 1/15/18 till Friday, 4/27/18

Required On-Campus Meetings

None. The course will be available online 24x7 from the start of the semester through the end. You are never required to be online on a certain day or at a certain time.

Live Webinars

Depending on the need, there might be two to three synchronous live webinars in the course via Blackboard Collaborate. The live webinars will help you to see and hear your professor. The attendance in Webinars is encouraged though not mandatory. If you are not able to attend the webinars, you will have the option of watching the recordings that will be posted on the Blackboard after the live webinar. The **first webinar** will be on **Thursday, Jan 18th, 2 pm**

CT. The other webinars will be spread over the duration of semester. You will receive instructions and more information about the webinars via e-mail and announcement as we draw closer to each webinar.

Prerequisites

While there are no formal prerequisites, a familiarity with high school mathematics will be helpful.

Description of the Course

This is a one semester course on astronomy with an emphasis on celestial motions, phases of moon, eclipses, history of astronomy, gravity, electromagnetic radiation, telescopes, and physical properties of the planets, asteroids, meteoroids, comets, and the discovery of extrasolar planets, study of the Sun as a star, measurement of different properties of stars, birth, evolution and death of stars, strange states of matter (neutron stars and black holes), Milky Way Galaxy, study of the Universe beyond our Galaxy, formation and evolution of galaxies. As we consider more distant objects, such as active galaxies and quasars, we move backwards in time, ultimately arriving at Big Bang. Overall, the course takes you to a journey from the farthest reaches of the Universe back to our home, the Earth.

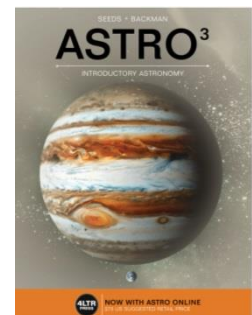
Learning Objectives:

On the completion of this course students should be able to

- demonstrate the methods and the advantages of advanced technology that astronomers use to obtain information about celestial objects.
- describe the nature of scientific research and process of science in the fields of Physics and Astronomy.
- explain the basic concepts of Physics, such as gravity, nature of light, electromagnetic spectra laws of motion, planetary motions and thermal radiation etc.
- demonstrate how the universe works on a larger scale starting from our solar system to the stars to our galaxy to the larger structures in the universe.
- analyze our place in the universe and apply it to understand the possible existence of extra-terrestrial life in the universe.
- demonstrate the ability to utilize technology in a variety of forms, and express their scientific ideas in clear, logical, organized, and concise ways.

Required Course Material

Text Book: ASTRO3 by Michael A. Seeds; Dana Backman, (Published by Cengage Learning) , 3rd Ed.



Options to buy:

You can buy the printed text book from UTA bookstore (<http://uta.bkstr.com>) or directly the publisher's website <http://www.cengagebrain.com>

Exams and Grading

The grading will include the following elements of the course.

	Course Element	Weight
1.	Chapters Reading Quizzes (RQs)	10 %
2.	Chapters Review Assignments	5 %
3.	Biweekly Discussions	10 %
4.	Tests (best 3 of 4) on Blackboard	50 %
5.	Final Exam on Blackboard	25 %
	Total	100 %

The grading scale would be as follows.

90-100: A

80-89: B

70-79: C

60-69: D

Less than 60: F (Fail)

Description of Course Elements

1. Chapters Reading Quizzes (RQs)– 10% course grade

There will be in all 15 quizzes from a total of 15 Chapters that are in the text book. Each quiz will typically consist of 10 multiple choice, true/false, and fill-in-the-blanks questions. Quizzes will be untimed but they should be finished before the respective due date for each chapter. Each Quiz can either be completed in a single sitting or in parts. All quizzes should be easy once you have read the book and Power Point slides thoroughly. These reading quizzes are **open book** quizzes.

No credit will be given if responses to the quizzes are given after the due dates. You can see the quiz score immediately after you finish the quiz, but the answers to the questions will be available only after the due date. Out of the total number of reading quizzes taken during the course, the ***one with the lowest score will be dropped*** when counting its contribution to the final grade. Quizzes will contribute 10% towards the final grade in the course.

2. Chapters Review Assignments– 5% course grade

There will be a total of 5 review assignments. These are summary assignments based on short Astronomy videos available online. Hopefully, you will find these assignments useful for the preparation of the tests.

No credit will be given for work submitted after the due date. Review assignments will contribute 5% towards the final grade in the course.

3. Discussions on Blackboard – 10% course grade

The discussions are biweekly. There will be a total of 7 discussion topics for the course. *To get the full credit for the discussion you must submit your own response and also reply to at least one other student's post.* Students need to submit the original response for the discussion topic as soon as they can or by the end of first week. This way other students will get sufficient time to read the post and respond accordingly the following week before the deadline. The maximum point for each discussion is 100. Up to 60 points will be given for your own posting based on its quality, and 40 points for your critical and thoughtful comment/answer to at least one posting. *While you only need to reply to one person, I strongly encourage you to participate more by replying to more posts. It will help deepen your thoughts on the discussion topic, and also increase your chances of getting a high grade in the discussion.*

Suggestions and tips: Your responses to other students must be well thought and researched that further enhances the quality of the on-going discussion and make others think critically. Just saying "me too", "I agree", "It's awesome", "I like it", "I never thought of it before" etc. is not enough for the grading point of view. You can supplement these phrases with more examples and additional ideas to get the credit. You can explain in scientific terms WHY do you agree or not agree with the other student's posting. It would be useful if you imagine that you are having a thoughtful conversation and critically discussing the topic with a person sitting next to you.

No credit will be given to responses posted after the deadline. These discussions contribute a total of 10% to the final grade.

4. Tests (Best 3 of 4) on Blackboard– 50% course grade

A Total of 4 tests will be held in the course. These tests will be available on Blackboard. In calculating the contribution of tests towards the final grade, the best three out of four will be used. If you are not able to take a test for some reason, you will receive a zero and that will be your dropped test. Since I drop the lowest test grade, *no makeup tests will be given.* Tests contribute the highest percentage towards the final grade. This will show exactly what you are learning in the course.

Each test will be *timed*. You will have **50 minutes** to record your responses for each test. Each test will have **50 Multiple Choice Questions** (MCQs). All tests will be **closed book**. Once the test is started you have to complete it fully, you can't leave it halfway and come back later. So, please make sure that you have suitable time and no other activities scheduled when you take the test. Also before taking the test, make sure your computer and internet connection are working

properly. The test can only be taken once. The exact dates, timings etc. are mentioned in the “Schedule” section of the course. Mark your calendar in advance for the tests dates.

The coverage of the chapters in each test is as follows,

Test 1 – Chapters 1, 2, 3

Test 2 – Chapters 4, 5

Test 3 – Chapters 6, 7, 8

Test 4 – Chapters 9, 10, 11

For each test, 50 questions will be distributed almost equally on all chapters listed above for that test.

In calculating the final grade, three of the best scored tests from all four taken will contribute 50% to the final grade.

5. Final Exam on Blackboard - 25% course grade

The Final Exam is mandatory and will be available on the Blackboard. The Final Exam will have a total of **100 multiple choice questions** to be answered. Out of the 100 questions, the first 50 questions will be from chapters 12, 13, 14, and 15. The rest of the 50 questions will be from chapters 1 to 11. The Final Exam will be **timed**. You will have a **total of 100 minutes** to answer all the questions. The Final exam can only be taken once and it will be closed book. Once the exam is started you have to complete it fully, you can't leave it halfway and come back later. So, please make sure that you have suitable time and no other activities scheduled when you take the Final Exam. Also before taking the final exam, make sure your computer and internet connection are working properly. The Final Exam will contribute 25% to the final grade.

Instructions for Taking the Tests and the Final Exam

The tests and the final are **closed book exams**. In addition, you will be required to use the **Respondus Lockdown Browser with webcam** to take the tests and final. The system will not allow you to take the test without this lockdown and **a webcam**. The webcam can be the built-in one on your computer or the type that plugs in with a USB cable.

The following video provides you some more information about the use of Respondus Lockdown Browser. <http://www.youtube.com/watch?v=XuX8WoeAycs>

Here are step-by-step instructions for downloading the “Respondus Lockdown Browser”

- Login to the Blackboard.

- On the center of the home page of the Blackboard (not of your course, but on the main page of Blackboard) look for the link of “Lockdown Browser” under the “General Announcements” section.
- Click on that link and install the browser.
- Once the installation is finished, you will see an icon (something similar to what is shown here) on your computer.
- You have to double click on that icon whenever you are ready to take the exam.
- Always check the functioning of the Webcam before starting the test.
- Upon completing and submitting the test, exit the LockDown Browser.



Netiquettes (stands for Net or Online Etiquettes)

At UT Arlington we emphasize and try to maintain the highest ethical standards in personal and professional communication. Treat your online class the same way you would the face-to-face class. Written yelling, shouting or demeaning of classmates' postings and ideas will NOT be tolerated. Try to be polite when communicating with the instructor or the classmates. Use of racial or ethnic slurs, flaming, or derogatory statements are grounds for disciplinary actions.

Academic Dishonesty/ Plagiarism

Even though this is an online course, you are just as bound to the university's academic dishonesty policy as the students in face-to-face on-campus courses.

It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. "Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22)

E-Culture Policy

The University of Texas at Arlington has adopted the University email address as an official means of communication with students. Through the use of email, UT-Arlington is able to provide students with relevant and timely information, designed to facilitate student success. In particular, important information concerning registration, financial aid, payment of bills, and graduation may be sent to students through email.

All students are assigned an email account and information about activating and using it is

available at www.uta.edu/email. New students (first semester at UTA) are able to activate their email account 24 hours after registering for courses. There is no additional charge to students for using this account, and it remains active as long as a student is enrolled at UT-Arlington. Students are responsible for checking their email regularly.

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/ses/fao>).

Student Feedback Survey

At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory will be asked to complete an online Student Feedback Survey (SFS) about the course and how it was taught. Instructions on how to access the SFS system will be sent directly to students through MavMail approximately 10 days before the end of the term. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback data is required by state law; student participation in the SFS program is voluntary.

Student Support Services Available

The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. These programs include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

Americans with Disabilities Act

UT 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)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. 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 disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the **Office for Students with Disabilities (OSD)**. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

The Office for Students with Disabilities, www.uta.edu/disability or calling 817-272-3364.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671.

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.

Non-Discrimination Policy

The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos.

Title IX

The University of Texas at Arlington (“University”) is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. *For information regarding Title IX, visit www.uta.edu/titleIX or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or jmhood@uta.edu.*

The IDEAS Center

IDEAS center at 2nd Floor of Central Library offers **free** tutoring to all students with a focus on transfer students, sophomores, veterans, and others undergoing a transition to UT Arlington. To schedule an appointment with a peer tutor or mentor email IDEAS@uta.edu or call (817) 272-6593.

The English Writing Center (411 LIBR)

The Writing Center Offers free tutoring in 20-, 40-, or 60-minute face-to-face and online sessions to all UTA students on any phase of their UTA coursework. Their hours are 9 am to 8 pm Mon.-Thurs., 9 am-3 pm Fri. and Noon-6 pm Sat. and Sun. Register and make appointments online at <http://uta.mywconline.com>. Classroom Visits, workshops, and specialized services for graduate

students are also available. Please see www.uta.edu/owl for detailed information on all our programs and services.

The Library's 2nd floor Academic Plaza offers students a central hub of support services, including IDEAS Center, University Advising Services, Transfer UTA and various college/school advising hours. Please check the link for more information <http://library.uta.edu/academic-plaza>

Schedule

The “**Schedule**” below contains the overall outline of the course, the timelines and due dates for each element of the course. Week is defined from **Monday to Sunday**. Carefully check into the schedule and mark your calendar accordingly. 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.

Week	Dates	Chapters Readings	Biweekly Discussions	Chapters Reading Quizzes (RQ)	Chapters Review Assignments	Due By
1	Jan 15 to Jan 21	Chap1	Discussion #0: Introductions (Not graded)	Chap1 RQ		Sunday, Jan 21 st 11 pm (CT)
2	Jan 22 to Jan 28	Chap 2	Discussion #1	Chap 2 RQ		Sunday, Jan 28 th 11 pm (CT)
3	Jan 29 to Feb 4	Chap 3		Chap 3 RQ	Review Assignment #1	Sunday, Feb 4 th 11 pm (CT)
Test 1 (Timed: 50 minutes); Chap 1-3; (It can be taken only once on the Blackboard.) Available from Friday, Feb 2nd, 12 am to Monday, Feb 5th, 11 pm (CT)						
4	Feb 5 to Feb 11	Chap 4	Discussion #2	Chap 4 RQ		Sunday, Feb 11 th 11 pm (CT)
5	Feb 12 to Feb 18	Chap 5		Chap 5 RQ	Review Assignment #2	Sunday, Feb 18 th 11 pm (CT)
Test 2 (Timed: 50 minutes); Chap 4-5; (It can be taken only once on the Blackboard.) Available from Friday, Feb 16th, 12 am to Monday, Feb 19th, 11 pm (CT)						
6	Feb 19 to Feb 25	Chap 6	Discussion #3	Chap 6 RQ		Sunday, Feb 25 th 11 pm (CT)
7	Feb 26 to Mar 4	Chap 7		Chap 7 RQ		Sunday, Mar 4 th 11 pm (CT)
8	Mar 5 to Mar 11	Chap 8	Discussion #4	Chap 8 RQ	Review Assignment #3	Sunday, Mar 11 th 11 pm (CT)
Test 3 (Timed: 50 minutes); Chap 6- 8; (It can be taken only once on the Blackboard.)						

Available from Friday, Mar 9th, 12 am to Monday, Mar 12th, 11 pm (CT)						
9	Mar 12 to Mar 18	Chap 9		Chap 9 RQ		Sunday, Mar 18 th 11 pm (CT)
10	Mar 19 to Mar 25	Chap 10	Discussion #5	Chap 10 RQ		Sunday, Mar 25 th 11 pm (CT)
11	Mar 26 to Apr 1	Chap 11		Chap 11 RQ	Review Assignment #4	Sunday, Apr 1 st 11 pm (CT)
Test 4 (Timed: 50 minutes); Chap 9-11; (It can be taken only once on the Blackboard.) Available from Friday, Mar 30th, 12 am to Monday, Apr 2nd, 11 pm (CT)						
12	Apr 2 to Apr 8	Chap 12	Discussion #6	Chap 12 RQ		Sunday, Apr 8 th 11 pm (CT)
13	Apr 9 to Apr 15	Chap 13		Chap 13 RQ		Sunday, Apr 15 th 11 pm (CT)
14	Apr 16 to Apr 22	Chap 14-15	Discussion #7	Chap 14-15 RQ	Review Assignment #5	Sunday, Apr 22 nd 11 pm (CT)
Final Exam (Timed: 100 minutes); Chap 1-15; (It can be taken only once on the Blackboard.) Available from Monday, Apr 23rd, 12 am to Thursday, Apr 26th, 11 pm (CT)						

Note: The same schedule is also provided as a separate one page pdf file that you might like to print out and paste on some visible place in your room to keep the continuous track of your course work.

Live by the 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 that I contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold

Helplines

For Blackboard related technical problems, e-mail helpdesk@uta.edu , call 817.272.2208, or use their 24/7 support service available through Blackboard's main page.

For course related issues, please contact me via Blackboard e-mail option