



SYLLABUS

Fall 2017

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: 682-999-8571 (Try to call only during business hours, and please do not leave any voice messages. The phone is not well equipped to receive the voice messages.)

Email: Please use the email option available on the Blackboard. I will be checking my e-mails until about 5 pm on working days 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. You might like to check with me about my availability before coming though.

Course Duration

Fall 2017 dynamic dated semester: From Monday, 8/21/17 till Friday, 12/01/17

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, Aug 24th at 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:

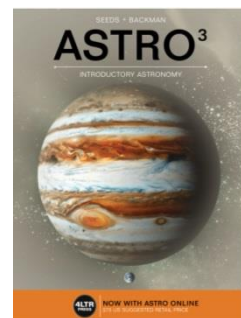
On the completion of this course students should be able to

- 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 (*with ASTRO 3 Online Printed Access Card*) by Michael A. Seeds; Dana Backman, (Published by Cengage Learning)

ISBN: 9781337097505 (Includes the printed book and the online access code)



Options to buy:

You can buy both the printed text book and the access code together as a bundle from UTA bookstore (<http://uta.bkstr.com>) or directly from the link that the publisher has created for you <http://services.cengagebrain.com/course/site.html?id=2232489>

or

You can just buy the Instant access code when you register for assignments from Blackboard. The code includes the e-book. If you are comfortable in using an e-book, you do not need to purchase the printed version of the book. The price is same (around \$75) that the publisher has set for you whether you get the printed book from the above link or the access code/ebook via Blackboard.

Important: If you purchase a used book online, or borrow a book, you will still need the access code for the online weekly chapter quizzes and other assignments.

Steps to Access the Assignments and E-book

On the left panel of Blackboard, click on the “Register for Digital Assignments/e-Book” option. There you will see two links --- first one to Register for Assignments and second one to Register in Virtual Astro Labs (VAL). **Make sure to use both of these links to register yourself.**

You may watch the following video to get more help about the registration process

<https://www.youtube.com/watch?v=8o04nwYR8KE> (Link of this video is also given on the Blackboard)

Since you do not have the access code yet, at the time of registration you can choose the option of “I will pay later – go to my Course”. **You can use the assignments and the e-book free of cost without the access code for two weeks. Hence, you can start your course work immediately.**

Exams and Grading

The grading will include the following elements of the course.

	Course Element	Weight
1.	Chapters Media Quizzes (MQ)	5 %
2.	Chapters Reading Quizzes (RQ)	10 %
3.	Chapters Virtual Astro Lab (VAL)	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 Media Quizzes (MQs)– 5% course grade

There will be one media quiz for each chapter. For a total of 15 chapters that will be covered in the course there will be 15 media quizzes. These quizzes are linked from Cengage MindTap platform directly to the Blackboard. The MQs are based on short videos. MQs will be untimed but they should be finished before their respective due dates. MQ for each chapter is very short and usually pretty easy. The MQs are **open book**.

No credit will be given for work submitted after the due date. Out of the total number of MQs, the *one with the lowest score will be dropped* when counting its contribution to the final grade. Quizzes will contribute 5% towards the final grade in the course.

2. 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. These quizzes are linked from Cengage MindTap platform directly to the Blackboard. 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 due date for that particular 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 and answer to the incorrect questions immediately after you finish the quiz, but the whole quiz for the review 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.

3. Virtual Astronomy Labs (VALs) – 10% course grade

There will be a total of about 13 to 15 VALs. The labs are meant to give you hands-on, minds-on experience of Astronomy. These are based on simulations, animations, and real Astronomy data.

Each lab consists of several activities. They may not correspond exactly with the chapter's topics. You can complete each lab in one sitting or in parts, but before its due date.

No credit will be given to the lab done after the deadline. The one with the lowest scores will be dropped. These VALs 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.

Important Note: 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. I will send more information about it as we get closer to Test 1.

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://web.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.

Week	Dates	Chapters Readings	Assignments			Due By
			Chapters Media Quizzes (MQ)	Chapters Reading Quizzes (RQ)	Virtual Astronomy Lab (VAL)	
1	Aug 21 to Aug 27	Chap1	Chap 1MQ	Chap1 RQ	No Lab (Post you intros under “Discussions”)	Sunday, Aug 27 th 11 pm (CT)
2	Aug 28 to Sept 3	Chap 2	Chap 2 MQ	Chap 2 RQ	Lab 1	Sunday, Sept 3 rd 11 pm (CT)
3	Sept 4 to Sept 10	Chap 3	Chap 3 MQ	Chap 3 RQ	Lab 2	Sunday, Sept 10 th 11 pm (CT)
Test 1 (Timed: 50 minutes); Chap 1-3; (It can be taken only once on the Blackboard.) Available from Friday, Sept 8th, 12 am to Monday, Sept 11th, 11:59 pm (CT)						
4	Sept 11 to Sept 17	Chap 4	Chap 4 MQ	Chap 4 RQ	Lab 3	Sunday, Sept 17 th 11 pm (CT)
5	Sept 18 to Sept 24	Chap 5	Chap 5 MQ	Chap 5 RQ	Lab 4	Sunday, Sept 24 th 11 pm (CT)
Test 2 (Timed: 50 minutes); Chap 4-5; (It can be taken only once on the Blackboard.) Available from Friday, Sep 22nd, 12 am to Monday, Sept 25th, 11 pm (CT)						
6	Sept 25 to Oct 1	Chap 6	Chap 6 MQ	Chap 6 RQ	Lab 5	Sunday, Oct 1 st 11 pm (CT)
7	Oct 2 to Oct 8	Chap 7	Chap 7 MQ	Chap 7 RQ	Lab 6	Sunday, Oct 8 th 11 pm (CT)
8	Oct 9 to Oct 15	Chap 8	Chap 8 MQ	Chap 8 RQ	Lab 7	Sunday, Oct 15 th 11 pm (CT)
Test 3 (Timed: 50 minutes); Chap 6- 8; (It can be taken only once on the Blackboard.) Available from Friday, Oct 13th, 12 am to Monday, Oct 16th, 11 pm (CT)						
9	Oct 16	Chap 9		Chap 9 RQ	Lab 8	Sunday, Oct

	to Oct 22		Chap 9 MQ			22 nd 11 pm (CT)
10	Oct 23 to Oct 29	Chap 10	Chap 10 MQ	Chap 10 RQ	Lab 9	Sunday, Oct 29 th 11 pm (CT)
11	Oct 30 to Nov 5	Chap 11	Chap 11 MQ	Chap 11 RQ	Lab 10	Sunday, Nov 5 th 11 pm (CT)
Test 4 (Timed: 50 minutes); Chap 9-11; (It can be taken only once on the Blackboard.) Available from Friday, Nov 3rd, 12 am to Monday, Nov 6th, 11 pm (CT)						
12	Nov 6 to Nov 12	Chap 12	Chap 12 MQ	Chap 12 RQ	Lab 11	Sunday, Nov 12 th 11 pm (CT)
13	Nov 13 to Nov 19	Chap 13	Chap 13 MQ	Chap 13 RQ	Lab 12	Sunday, Nov 19 th 11 pm (CT)
14	Nov 20 to Nov 26	Chap 14-15	Chap 14-15 MQ	Chap 14-15 RQ	Lab 13-14	Sunday, Nov 26 th 11 pm (CT)
Final Exam (Timed: 100 minutes); Chap 1-15; (It can be taken only once on the Blackboard.) Available from Monday, Nov 27th, 12 am to Thursday, Nov 30th, 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 online assignments (MQs, RQs, and VAL) related problems and issues, contact Cengage via <http://support.cengage.com/victoriaweb/primarypage> or call 866-994-2427

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