

Spring 2022 Syllabus

ASTR 151: A Journey Through the Solar System

General Information:

Instructor:	Dr. Nau Raj Pokhrel
Office:	214 Nielsen Physics Building, UTK
Email:	npokhrel@utk.edu or, via the Canvas message system
Phone:	(865) 974-5697
Classroom:	Nielsen 415
Class Time:	Tuesday & Thursday from 1:10 PM to 2:25 PM
Office Hours:	Thursday from 2:30 PM to 4:00 PM (or by email appointment)
Communication:	The majority of classroom communication will be conducted via the Canvas for this class. To ensure prompt response from me, follow the email policy:

- Please put “**ASTR 151**” in the subject line of all course related emails. This practice will help me identify course related emails and respond promptly.
- You can expect delay in responding to emails; I will try to minimize such delays, but do not email me on the evening an assignment is due or before an exam expecting an immediate response. If you don't get response after a couple of days or according to urgency, please resend the email.
- Before emailing me with questions about the course, please ensure that the information is not already provided in the course syllabus or on Canvas.

Course Description & Goals:

Course Overview: ASTR 151 is a 3 credit-hour introductory astronomy course which satisfies the general education requirement for non-science majors. In this course we study the Earth's nearest astronomical neighbors- including the sun, planets, asteroids, and comets. The course also covers seasons, solar and lunar eclipses, motion of the planets in the night sky, recent planetary space probe discoveries, development of our modern understanding of the origin and evolution of our solar system and its place in the universe, discovery of extrasolar planets in distant solar systems.

Pre/corequisites: The course doesn't have any pre/corequisites. However, a minimum of mathematical analysis is expected.

You will need the following resources for the course:

1. Pearson Mastering Astronomy for the Cosmic Perspective (9th Edition) by Bennett et al. This the inclusive access content, you should already have received the **inclusive access** email from the VolShop to proceed. **You don't need to pay it separately, and you don't need any access code.** For the first-time registration, you can follow the Assignments/VitalSource Bookshelf tab on the left sidebar in Canvas.
2. The Cosmic Perspective (9th Edition) by Bennett et al, Pearson. **If you prefer eText, it is included in the Pearson Mastering Astronomy, you don't need to purchase the print Textbook.** If you prefer the print textbook, you can have one, **but you do not need to purchase the current edition of the textbook.** The material does not change significantly between

editions and any recent edition will meet your needs for the course.

- Turning Technologies (Clicker) Registration:** ***We will be using the clickers in almost all lectures, so, make sure you have downloaded the app, and it is ready by the first class.*** Follow the link provided on Canvas Module to register your app. The link is posted on the Canvas Modules section as well. Note that **you must use your UTK email ID** to register otherwise your score won't be integrated into Canvas. For instructions in details, visit the UTK OIT website. (<https://utk.teamdynamix.com/TDClient/2277/OIT-Portal/KB/ArticleDet?ID=117398>)

Class Schedule: The following is a class schedule along with lecture topics, assignments etc. This is a tentative schedule, and might differ as our class speed. Any changes, and notices made in the classes/announcements supersede the schedule.

Day	Week	Chapter	Topics	HW
25-Jan	1	Introduction/ Chapter 1	Syllabus, A Modern View of the Universe	HW 1 (Ch 1)
27-Jan		Chapter 1/2	Discovering the Universe for yourself	
01-Feb	2	Chapter 2/3	The Science of Astronomy	HW 2 (Ch 2)
03-Feb		Chapter 3/S1	Celestial Timekeeping and Navigation	
08-Feb	3	Chapter 4	Making Sense of the Universe	HW 3 (Ch 3, S1)
10-Feb				
15-Feb	4	Chapter 4	Making Sense of the Universe	HW 4 (Ch 4)
17-Feb				
22-Feb	5	Mid-Term Exam I Review		HW 5 (Ch 5, 6)
24-Feb		Mid-Term Exam I (Chapters 1-4, S1)		
01-Mar	6	Chapter 5	Light and Matter	HW 5 (Ch 5, 6)
03-Mar		Chapter 6	Telescopes	
08-Mar	7	Spring Break		HW 6 (Ch 7, 8)
10-Mar				
15-Mar	8	Spring Break		HW 7 (Ch 9)
17-Mar				
22-Mar	9	Chapter 7	Our Planetary System	HW 8 (Ch 10, 11)
24-Mar		Chapter 7/8	Formation of the Solar System	
29-Mar	10	Chapter 8/9	Planetary Geology	HW 9 (Ch 12, 13, 14)
31-Mar		Chapter 9/10	Planetary Atmospheres	
05-Apr	11	Mid-Term Exam II Review		HW 8 (Ch 10, 11)
07-Apr		Mid-Term Exam II (Chapters 5-9)		
12-Apr	12	Chapter 10	Planetary Atmospheres	HW 9 (Ch 12, 13, 14)
14-Apr		No Class Day		
19-Apr	13	Chapter 10/11	Jovian Planet Systems	HW 9 (Ch 12, 13, 14)
21-Apr		Chapter 11/12	Asteroids, Comets and Dwarf Planets	
26-Apr	14	Chapter 12/13	Other Planetary Systems	HW 9 (Ch 12, 13, 14)
28-Apr		Chapter 13/14	Our Star	
03-May	15	Mid-Term Exam III Review		HW 9 (Ch 12, 13, 14)
05-May		Mid-Term Exam III (Chapters 10-14)		
10-May	16	Course Wrap-up/ Review		HW 9 (Ch 12, 13, 14)
18-May	WED	Final Exam (1:00 PM - 3:00 PM), Cumulative (Chapters 1-14, S1)		

Grading & Evaluation:

Clicker Quizzes & Discussion Participation: In the class meeting, you will be responding quizzes during the lectures. Clicker response grade is divided equally to participation (50%) and the correct response (50%). Your participation in discussion forum on canvas also includes the participation grade.

Homework Assignments: You will be assigned homework on Mastering Astronomy. You can access them via the link provided on Canvas Assignments. You will have three attempts for each Homework, and the highest grade will be the HW grade. The assignments will be due on the indicted due date under the assignment module on Canvas.

Midterm Exams: There will be THREE midterm tests. The tentative dates for the midterms are indicated on the schedule. ***Please note that these dates are subject to change as we progress through the course material but they will be finalized at least a week prior so that you can plan accordingly.*** Each midterm exam will be 50 minutes in length.

Final Exam: The final exam will be given as scheduled by the registrar's office (see the schedule). If you determine that you have a conflict with that time or have three or more exams scheduled on that day, please let me know as soon as possible. The Final Exam will be two hours in length and cumulative in scope, covering all the course materials discussed in the semester.

Grading Scheme:

Grades: Your grade is calculated based on many elements of the course. See the table below for details on this.

Course Element	%
Mid-term I	10%
Mid-term II	10%
Mid-term III	10%
Final Exam	22%
Homework	40%
In-class Quiz/Discussion Participation	8%
Total	100%

Letter grade will be obtained using the conversion below:

%	Grade
90% and above	A
87% - 89%	A-
83% - 86%	B+

80% - 82%	B
77% - 79%	B-
73% - 76%	C+
70% - 72%	C
67% - 69%	C-
63% - 66%	D+
60% - 62%	D
57% - 59%	D-
< 57%	F

(Note: The instructor reserves the right, when necessary, to alter the grading policy, change examination dates, and modify the syllabus and course content. Modifications will be announced in class. Students are responsible for announced changes.)

Other Information:

Class Rules: Students need to follow the following guidelines and classroom etiquette to ensure a positive and respectful learning environment for everyone:

- **Please arrive to the class on time:** don't make it a habit to join late.
- **Cell Phones/Technology:** Be respectful. Use of electronic devices for academic work is fine but use of electronic devices for other purposes is not. Turn off your cell phones when we are not using them in quizzes. While on the computers social networking is not allowed. Repeated abuse will result in being dismissed from that class and asked to return next week. No credit will be given for such dismissal.
- **Avoid side conversations:** The noise is distracting to other students, and you will impact the learning environment, so avoid private conversations in the classroom.
- **Be respectful:** Act in a matured/polite manner and be respectful of the learning process, your instructor, classroom, and your fellow students. Respect to the learning environment is projected in many ways including your body language e.g., do not put your feet/legs on the back of the seats in front of you.
- **Raise your hand:** If you have a question or comment during the class, please raise your hand.
- **Share the air:** If you have been dominating the discussion or participating disproportionately, let others participate. Alternatively, if you haven't said much, you are encouraged to participate more.
- Please use **respectful and socially inclusive language.**

How to succeed and get a good grade in the class: The number of lecture hours in this class are not enough to cover all parts of the syllabus in detail. Hence reading assignments and home works are provided. A good portion of success in this class depends on coming class to prepared, actively participating during the class and completing home works as assigned.

- Please communicate with me on time if you have any questions so that we can work together for the success.

- Read the course material before coming to the class.
- In the class, participate actively and respond to all the clicker questions so you can earn your quiz/participation credit.
- Follow the class rules and behavior etiquette while in the class.
- Complete all the assignments on time.

Your Feedback/Suggestions on the course: You are encouraged to provide feedback on any aspect of the course all through the semester using any communication method you prefer. Your **grades will not be impacted by any feedback** you provide, they will be purely based on your coursework and lab work. However, your discretion in these matters is expected. You will also have an opportunity to give feedback at the end of the semester through the Course Evaluation System. Your feedback is critical in improving the course. Each year I take the information provided in feedback seriously so please take the time to fill out the feedback forms in a thoughtful manner.

Students with disabilities:

If you need course adaptations or accommodations because of a documented disability, please contact the Student Disability Services (SDS). This will ensure that you are properly registered for the services provided by SDS. *University Policy forbids me from making special accommodations without a letter from the Office of Student Disability Services.*

Disability Services Contact Information:

2227 Dunford Hall

Knoxville, TN 37996-4020

Phone: (865) 974-6087

Fax: (865) 974-9552

Email: sds@utk.edu

Website: <https://sds.utk.edu/>

For additional important information (Academic integrity, civility statement, UT alerts, ...) please see the Campus Syllabus ([Click here to download the Campus Syllabus](#)).