

**PHYSICS 1052 (Section 002) – THE SOLAR SYSTEM
Syllabus Fall 2025**

Dr. David Shiner (shiner@unt.edu)

Lecture: MW 6:30-7:50, Env 130

Office: Physics 326 Phone: 565-3874.

Office Hours: Tu 9:30-10:30 or by appointment

Lab: Must enroll in Physics 1052 Section 503

<u>Textbook</u>	Required: “The Essential Cosmic Perspective, with MasteringAstronomy Access”, by Bennett, Donohue, Schneider, and Voit (Pearson Education Inc., 9 th edition). ISBN:9780135795262. It can be purchased directly through Pearson for \$89.99 and through the bookstore for \$114.99. This required text is an eText with access to Mastering Astronomy (required for homework and exams). The eText contains the chapters for both PHYS 1052 and PHYS 1062.
<u>Homework</u>	Homework assignments are posted on Canvas and must be completed on the Modified Mastering Astronomy website accessed through Canvas. Access to the website can be purchased bundled with the eText at the UNT bookstore or from the Pearson Website.
<u>Laboratory</u>	The Laboratory component of this course is described in a separate syllabus. Information on this component can be found in a separate Canvas page for that 1052 Section. The Lab component will count 20% of your overall course grade.
<u>Content:</u>	This is an introductory astronomy course that provides a brief history of astronomy, gives an overview of the techniques and principles important in astronomy, and examines the astronomical properties of the earth, moon, planets and minor bodies. It briefly looks at other (non-solar) planetary systems as well as the possibility of life outside the earth.
<u>Core:</u>	This course is a part of the Life and Physical Sciences core. Courses in this category focus on describing, explaining and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.
<u>Core Objectives:</u>	Critical Thinking Skills, including creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information. Communication Skills, including effective development, interpretation and expression of ideas through written, oral and visual communication. Empirical and Quantitative Skills, including the manipulation and analysis of numerical data or observable facts resulting in informed conclusions. Teamwork, including the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
<u>Office Hours</u>	My office is on the third floor of the physics building (rooms 326/328), phone number is 565-3874, email is shiner@unt.edu . Office hour is Tu 9:30 – 11:00 or by appointment.
<u>Grading</u>	No extra credit is available. Pop quizzes will be given during the semester, lab grading detailed in lab.
<u>Course Grade</u>	HW: 10% Tests: 20% Labs: 20% Quizzes: 10% Discussion: 10% Final Exam: 30%
<u>Final Thought:</u>	<i>We want to create a welcoming classroom and lab for all. If you ever feel like this is not the case, please stop by my office and let's talk about how things could be improved.</i>

You are responsible for modifications to this syllabus and any other information presented in class.

Student absences (including tardiness) will be treated in accordance with UNT policy, [Student Attendance and Authorized Absences](#)

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time; however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the [Office of Disability Access](#) website (<http://www.unt.edu/oda>). You may also contact ODA by phone at (940) 565-4323.

UNT's policy on Academic Dishonesty can be found at: <http://www.vpaa.unt.edu/academic-integrity.htm>

Drop information is available in the schedule of classes at: <http://cssc.unt.edu/registrar/schedule/scheduleclass.html>

The Student Perceptions of Teaching (SPOT) is a requirement for all organized classes at UNT. This short survey will be made available to you on-line at the end of the semester and will provide you with an opportunity to provide feedback to your course instructor. SPOT is considered to be an important part of your participation in this class.

PHYSICS 1052 (Section 002) – THE SOLAR SYSTEM
Course Schedule Fall 2025

<u>Date</u>	<u>Day</u>	<u>Subject (Chapter)</u>
Aug. 18	M	Course Syllabus, Intro to Mastering and Math Review
20	W	A Modern View of the Universe - Scale (Ch. 1.1)
25	M	A Modern View of the Universe – History and Motion (Ch. 1.2, 1.3)
27	W	Discovering the Universe – Patterns in the Sky, The Seasons (Ch. 2.1, 2.2)
Sept 1	M	Labor Day
3	W	Discovering the Universe – The Moon and Planetary Motion (Ch. 2.3, 2.4)
Sept 8	M	The Science of Astronomy – Ancient Roots and Greek Science (Ch. 3.1, 3.2)
10	W	The Science of Astronomy – The Copernican Revolution, Nature of Science (Ch. 3.3, 3.4)
15	M	Understanding Motion, Energy and Gravity – Motion and Newton (Ch. 4.1, 4.2)
17	W	Understanding Motion, Energy and Gravity – Conservation Laws and Gravity (Ch. 4.3, 4.4)
22	M	Light – The Basics of Light and Matter, Learning from Light (Ch. 5.1, 5.2)
24	W	Test 1: Chapters 1-4
29	M	Light – Telescopes (Ch. 5.3)
Oct. 1	W	The Formation of the Solar System – Brief Tour (Ch. 6.1)
6	M	The Formation of the Solar System – Formation and Features (Ch. 6.3, 6.4)
8	W	The Formation of the Solar System – Age (Ch. 6.5)
13	M	Earth and the Terrestrial Worlds – Earth as a Planet (Ch. 7.1)
15	W	Earth and the Terrestrial Worlds – The Moon, Mercury and Mars (Ch. 7.2, 7.3)
20	M	Earth and the Terrestrial Worlds – Venus, Earth as a Living Planet (Ch. 7.4, 7.5)
22	W	Jovian Planet Systems – A Different Kind of Planet (Ch. 8.1)
27	M	Test 2: Chapters 5-7
29	W	Jovian Planet Systems – Moons and Rings (Ch. 8.2, 8.3)
Nov 3	M	Smaller Solar System Objects – Classification, Asteroids, Comets (Ch. 9.1, 9.2, 9.3)
5	W	Smaller Solar System Objects – Pluto, the Kuiper Belt, Collisions (Ch. 9.3, 9.4, 9.5)
10	M	Other Planetary Systems – Detecting Exoplanets and their Nature (Ch. 10.1, 10.2)
12	W	Other Planetary Systems – The Formation of Other Planetary Systems (Ch. 10.3)
17	M	Life in the Universe – Life in various places (Ch. 19.1, 19.2, 19.3)
19	W	Life in the Universe – Intelligence and Interstellar Travel (Ch. 19.4, 19.5)
24	M	Thanksgiving Break
26	W	Thanksgiving Break
Dec. 1	M	Test 3: Chapters 8-10, 19
3	W	Review

Comprehensive Final Exam: Monday Dec. 8, 2025, 6:30 p.m. - 8:30 p.m.