



## **ASTR 1304.01W, Solar System**

COURSE SYLLABUS: Summer II 2026

### **INSTRUCTOR INFORMATION**

**Instructor:** Dr. Blake Head

**Office Location:** STC 340

**Office Hours:** Virtual, by appointment

**University Email Address:** thomas.head@etamu.edu

**Preferred Form of Communication:** E-mail

**Communication Response Time:** I will do my best to respond to your e-mails as soon as possible, definitely within 24 hours.

### **COURSE INFORMATION**

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required:

21st Century Astronomy, 7th Edition by Palen & Blumenthal

Publisher website: <https://wwnorton.com/books/9780393877021>

“Smartwork” access will not be used or needed

### **Course Description**

A descriptive survey of the solar system specifically including the sun, planets and their satellites, comets, and other members of the solar system. The course will also examine the history of astronomy and the development of scientific tools for understanding the nature of the Solar System.

Astronomy is an ancient science with records dating back to the dawn of civilization. Despite this long history, it remains an exciting and vibrant area of ongoing study. In the coming years, astronomers may discover Earth-sized planets around other stars, see the first stars emerging from the cosmic dawn, and explore new physics in realms and laboratories that Earth-bound scientists can only dream of.

*The syllabus/schedule are subject to change.*

In this course, we will focus on the Sun and its accompanying collection of planets, comets, asteroids, and other debris. We'll begin by studying the night sky and the history of astronomy. From the insights we gain in these topics, we will step out and study our Solar System. Along the way we will find ice volcanoes, temperatures ranging from near absolute zero to hot enough to melt lead, and potential places for life.

This course will not cover stars, cosmology, or extraterrestrial life. Stars and cosmology are covered in ASTR 1303; extraterrestrial life is covered in ASTR 12

**Student Learning Outcomes** (Should be measurable; observable; use action verbs)

1. You will be able to explain how astronomers determined the true size, layout, and forces at play in our Solar System.
2. You will be able to compare the properties of different objects in our Solar System.
3. You will be able to restate hypotheses concerning the origins of our Solar System.
4. You will be able to identify major bodies in the Solar System from picture.

## **COURSE REQUIREMENTS**

### **Minimal Technical Skills Needed**

You will need to be able to access myLeo Online and be able to learn how to use it. You should also be able to read PDF documents. You should be able to create either Microsoft Word documents (.docx) or plain text files. You must be familiar with Internet usage and safe browsing. You need to be able to watch YouTube videos on a computer. You need to be able to scan a QR code using your smartphone and/or complete a Google Form.

### **How This Course is Organized**

This course is organized for you to complete a chapter of material over ~2-3 hours per week. You should listen to the lecture videos and check the course page on MyLeo Online often to see which chapters/sections we will be covering each week and/or the assignments that are coming due

### **What Should You Do First?**

After reading this syllabus, you should:

- proceed to the course page on MyLeo Online and familiarize yourself with the resources there.
- order the course materials if you haven't already.
- ensure you can navigate the course shell and find where all assignments are kept.

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# INSTRUCTIONAL METHODS

## Discussions and Quizzes

To give you an incentive to engage with the class and keep up with the work, I will encourage in-class discussion of certain topics. After viewing each lecture video you will complete a short quiz on myLeo Online over some of the information covered in the lecture. Failure to complete a quiz will result in a zero for that assignment.

Each week you will complete three discussion posts that will have the following themes:

1. Ask your peers a question: In this post, you will ask a question and reply to another student's question with constructive criticism.
2. Answer an in-depth concept question: In this post you will choose 1 topic question to answer, where you will post your answer and critique the response of your peers.
3. Ask your instructor a question: In this post, you will have an opportunity to ask the instructor any question you have concerning a topic within the unit.

The post will be evaluated using the following rubric:

Category	Points	Description
Initial Post	4	Clearly explains course concepts with original reasoning or examples.
Peer Reply	3	Responds meaningfully to a classmate's post with a question, clarification, or insight
Effort & Clarity	2	Posts are well-written, organized, and show thoughtful effort.
Deadline	1	Initial post is submitted by mid-week so others have a chance to reply.

Further details concerning the criteria for each grading category are available for review on myLeo Online. AI Use Policy: Posts must reflect your own thinking. Content generated entirely by AI (e.g., ChatGPT) will earn zero credit unless it is clearly revised, meaningfully expanded, and clearly documented

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## Exams

**Schedule & Format:** There will be four non-cumulative exams and one optional, comprehensive final exam. Each exam is timed and may only be taken once. While exams focus on material covered since the previous test, the interconnected nature of astronomy means earlier concepts may still apply.

**Grade Replacement Policy:** The final exam is optional. If you choose to take it, the score will automatically replace your single lowest regular exam score. This is the only remedy for a missed or low-scoring exam. There is no makeup for the final exam itself.

**Makeup Exams:** Makeup exams are only for documented, extenuating emergencies (e.g., medical crisis, death in the family). You must email me with official documentation to be considered. Do everything in your power to take exams as scheduled.

**Academic Integrity:** You must work on all exams alone. Communication or collaboration of any kind (e.g., with classmates, via texting, Zoom, ChatGPT, etc.) is strictly forbidden and constitutes academic dishonesty. Violations will result in a zero on the exam and further disciplinary action.

## Homework

Homework is assigned through myLeo Online, where you will complete ~8 written response questions for each assignment. For each homework assignment, your primary goal for all questions is to provide thoughtful, thorough, and well-supported answers.

The due date for each unit (3 assignments) is Sunday by 11:59PM. Late homework is penalized 10% per day late. After 3 days, you will receive a zero on the assignments.

The following are considered cheating and will not be tolerated. Directly copying text from a website (e.g., Quizlet) or other printed source, obtaining copies of solutions to homework questions (whether from past students or other sources), directly copying another student's work, etc. Suspected use of generative AI (such as ChatGPT) that is undocumented and submitted as original work. See the section on "Academic Integrity" for full details.

Most written responses will be graded on a 10-point scale (see table below). The general criteria are summarized in the table below. For the complete, detailed rubric breakdowns for each point level, please refer to myLeo Online.

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Score Range	Performance Level	Summary of Expectations (Content & Writing)
9-10 pts	Excellent	Demonstrates a thorough and nuanced understanding. Content is comprehensive, accurate, insightful, and well-supported. Writing is exceptionally clear, concise, well-organized, and mechanically sound.
7-8 pts	Good	Demonstrates a good understanding. Content is mostly accurate and covers major points effectively. Writing is clear, generally well-organized, with few, if any, minor mechanical errors.
5-6 pts	Satisfactory	Demonstrates a basic understanding. Content addresses main points but may be superficial, contain some inaccuracies, or have omissions. Writing is adequate and generally understandable but may have some issues with clarity, organization, or mechanical errors.
3-4 pts	Needs Significant Improvement	Demonstrates limited or flawed understanding. Content is partially correct, misses multiple major points, or has significant inaccuracies. Writing is unclear, poorly organized, or contains frequent errors; response may be underdeveloped.
1-2 pts	Unsatisfactory	Demonstrates a fundamental lack of understanding. Content is largely incorrect, irrelevant, or minimal. Writing is very poor and may be incomprehensible.
0 pts	No Credit	No response; the response is entirely off-topic; or response for a standard question is identified as being primarily AI-generated and submitted as original work (this may also be subject to institutional academic integrity review).

### **Tips for Success in this Course**

Students who do well in this course share most of the following common habits:

- Working on the course a little bit every day.
- Checking myLeo and Slack often for announcements and assignments.
- Preview Discussion and Homework questions before watching the lectures to guide your note-taking.
- Completing all assignments on time.
- Asking for help and advice early in the semester.
- Taking responsibility for their own grade

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## GRADING

A letter grade is determined only at the end of the term. Course grades will be based on quizzes, homework assignments, and exams. Grades are based on a weighted system.

Grading is on an absolute scale with no competition. If you all earn an A, you all get an A. I may “curve” grades for specific assignments at my discretion; your percentage earned will never go down if I apply such a curve. Your current grades are available through the gradebook on myLeo Online – look for “**Final Calculated Grade.**”

Category	Weights
Quizzes	10%
Discussions	20%
Homework	30%
Exams I-IV	10 % (each)
Final Exam	10% *

\* The final is cumulative and replaces the lowest quiz grade.

Grading Scale	
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	< 60%

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## TECHNOLOGY REQUIREMENTS

### LMS

All course sections offered by East Texas A&M University have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

[https://documentation.brightspace.com/EN/brightspace/requirements/all/browser\\_support.htm](https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm)

### ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or [helpdesk@etamu.edu](mailto:helpdesk@etamu.edu)

**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a ETAMU campus open computer lab, etc.

### COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your instructor.

#### Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

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## **Interaction with Instructor Statement**

### **COURSE AND UNIVERSITY PROCEDURES/POLICIES**

#### **Course Specific Procedures/Policies**

##### **Syllabus Change Policy**

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

#### **University Specific Procedures**

##### **Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.

<https://inside.etamu.edu/admissions/onestopshop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <https://www.britannica.com/topic/netiquette>

##### **ETAMU Attendance**

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedures 13.99.99.R0.01](#)

<https://inside.etamu.edu/admissions/registrar/generalInformation/attendance.aspx>

##### **Academic Integrity**

Students at East Texas A&M University are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

<https://inside.etamu.edu/aboutus/policiesproceduresstandardsstatements/rulesprocedures/13students/graduate/13.99.99.R0.10.pdf>

<https://inside.etamu.edu/academics/graduateSchool/faculty/GraduateStudentAcademicDishonestyForm.pdf>

##### **Students with Disabilities-- ADA Statement**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a

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learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

### **Office of Student Disability Resources and Services**

East Texas A&M University

Velma K. Waters Library Rm 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: [studentdisabilityservices@etamu.edu](mailto:studentdisabilityservices@etamu.edu)

Website: [Student Disability Services](#)

<https://www.etamu.edu/student-disability-services/>

### **Nondiscrimination Notice**

East Texas A&M University will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

### **Campus Concealed Carry Statement**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in East Texas A&M University buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and ETAMU Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url: <http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all ETAMU campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

### **East Texas A&M University Supports Students' Mental Health**

The Counseling Center at ETAMU, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit [www.etamu.edu/counsel](http://www.etamu.edu/counsel)

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## **Mental Health and Well-Being**

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.



<http://telusproduction.com/app/5108.html>

## **AI use policy [Draft 2, May 25, 2023]**

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

13.99.99.R0.10 Graduate Student Academic Dishonesty

## **Department or Accrediting Agency**

## **Required Content**

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## COURSE OUTLINE / CALENDAR

The course will cover many of the topics outlined below. The dates below may change, so pay attention to announcements for final due dates. See the d2L Calendar for exact dates. The week number and days you should spend give you a guide for pacing the course. Note that you should allocate ~1.5 hours each day to complete the homework by the given deadline on myLeo Online. Homework and discussion posts are due weekly

Week	Chapters	Hours/Chapter	Topics
1 (July 6 - July 12)	1	1.5	Thinking Like and Astronomer
	2	1.5	Patterns in the Sky
	3	1.5	Motion of Astronomical Bodies
	-	-	<b>Exam I</b>
2 (July 13 - July 19)	4	1.5	Gravity
	5	1.5	Light
	6	1.5	Tools of the Astronomer
	-	-	<b>Exam II</b>
3 (July 20 - July 26)	7	1.5	Formation of Planetary Systems
	8	2	Terrestrial Planet Surfaces
	9	1.5	Terrestrial Planet Atmospheres
	-	-	<b>Exam III</b>
4 (July 27 - August 2)	10	2	The Giant Planets
	11	1.5	Moons & Rings
	12	1.5	Small Solar System Bodies
	-	-	<b>Exam IV</b>
5 (August 3 - August 6)	1-12	-	<b>Final Exam</b>

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