

Physics 1304

Astronomy of the Solar System



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Office Hours: by appointment in Collaborate

Course Description

Physics 1304, Astronomy of the Solar System, is a three credit hour introductory study of the current knowledge and techniques of planetary astronomy. Broad topics in the field will be covered, but the emphasis will be on the birth of modern planetary astronomy and planetary geology.

Course Delivery

This is an online course that will be delivered via [Blackboard](#). If you choose, you can complete this course without visiting the ASU campus.

Required Text



Astronomy by Fraknoi, Morrison, & Wolff

Print:

ISBN-10: 1-938168-28-3

ISBN-13: 978-1-938168-28-4

Digital:

ISBN-10: 1-947172-24-7

ISBN-13: 978-1-947172-24-1

iBooks:

ISBN-10: 0-9986257-3-6

ISBN-13: 978-0-9986257-3-7

Technology Requirements

Access to exams will be through Respondus Lockdown Browser. For best results, use an ethernet cable to connect to your Internet source instead of relying on Wifi. Refer to the Blackboard course for Respondus installation instructions.

Communication

Faculty will respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

Written communication via email: All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes. In your emails to faculty, include the course name and section number in your subject line.

Virtual communication: Office hours and/or advising will be done with the assistance of the telephone, Collaborate, etc.

Assessing Outcomes & Grade Determination

Method of Assessing Outcomes

Student learning outcomes will be assessed with:

- Worksheets and quizzes (20%) for material are assigned each week. Worksheets and quizzes will be posted on Mondays and will be completed/submitted through Blackboard and due on Fridays.
- Conceptual Activities (20%) will be posted on Blackboard and due as posted below.
- Four midterm exams (40%) completed **using Respondus LockDown Browser** and due as posted below.
- A comprehensive Final Exam (20%) available on **Tuesday and Wednesday May 10-11th** completed **using Respondus LockDown Browser**.

NOTE #1: Blackboard assignments are due “at the end of the day” which means 11:59PM. However, tests are timed and WILL NOT be available all the way until the end of the day (e.g. tests with 1-hour time limits will not be available starting at 11:00PM). Blackboard issues **will** arise, if you wait until the last minute to complete assignments you run the risk of missing them. I can fix problems such as browser crashes and internet outages, but **NOT** the hour before it is due. You have multiple days to complete work, so **due dates are firm**.

NOTE #2: This course requires you to be able to print worksheets/assignments and scan/image them for submission. The former requires a printer and the latter requires a smartphone or printer with scanning capabilities. There are a number of free apps for smartphones that will image/scan documents for you, please ask if you need help with this. The Blackboard page also has information regarding this.

NOTE #3: **I DO NOT accept emailed work.** **ALL** work will be submitted through Blackboard.

NOTE #4: Midterm Exams and the Final Exam **require** the use of Respondus LockDown Browser. There are instructions on Blackboard for how to download and install this to your computer or iPad.

Late Work

Unexcused late work or missed tests will not be accepted. If your assignments are not submitted by the posted deadline you will receive a zero for that assignment. You must contact your professor **before** the assignment is due if you believe it will be late or as soon as possible after the due date in the case of an unexpected emergency.

Grade Determination

Your final grade will be determined by your scores on all tests and exams.

Assessment	Percent of Total Grade
Quizzes & Worksheets	20
Conceptual Activities	20
Midterm Exams	40
Final Exam (May 10-11 th)	20
Total	100%

Angelo State University employs a letter grade system. Grades in this course are determined on a percentage scale: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F = 59% and below

General Policies Related to This Course

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)¹
- [Angelo State University Catalog](#)²

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the university's [Statement of Academic Integrity](#)³ (Page 97).

Accommodations for Students with Disabilities

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the [Student Disability Services website](#).⁴ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dr. Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu
Houston Harte University Center, Room 112

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)⁵ for more information.

Plagiarism

Plagiarism is a serious topic covered in ASU's [Academic Integrity Statement](#)⁶ in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality. Resources to help you understand this policy better are available at the [ASU Writing Center](#).⁷

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 [Student Absence for Observance of Religious Holy Day](#)⁸ for more information.

Title IX at Angelo State University

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Miller, J.D. You may submit reports in the following manner:

Online: [Incident Reporting Form](#)⁹

Face to Face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: michelle.miller@angelo.edu

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit the [Title IX website](#).¹⁰

Information About COVID-19

Please refer to ASU's [COVID-19 \(Coronavirus\) Updates](#)¹¹ web page for current information about campus guidelines and safety standards as they relate to the COVID-19 pandemic.

Modifications to the Syllabus

This syllabus, including grade evaluation and course schedule, is subject to modification on potentially short notice based on developing circumstances.

¹ <https://www.angelo.edu/current-students/student-handbook/>

² <https://www.angelo.edu/academics/catalog/>

³ <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=97>

⁴ <https://www.angelo.edu/current-students/disability-services/>

⁵ <https://angelo.policystat.com/policy/10659448/latest/>

⁶ <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=97>

⁷ https://www.angelo.edu/current-students/writing-center/academic_honesty.php

⁸ <https://angelo.policystat.com/policy/10659368/latest/>

⁹ <https://www.angelo.edu/incident-form>

¹⁰ <https://www.angelo.edu/title-ix>

¹¹ <https://www.angelo.edu/covid-19/>

Course Schedule

Week	Reading	Work Due
Unit #1: Background Science		
Jan 18 – 21	Chapter 1: Science & the Universe: A Brief Tour	Ch 1 Quiz
Jan 24 – 28	Chapter 2: Observing the Sky: The Birth of Astronomy	Ch 2 Quiz
Jan 31 – Feb 4	Chapter 3: Orbits & Gravity	Ch 3 Quiz
Feb 7 – 11	Chapter 4: Earth, Moon, & Sky	Ch 4 Quiz Phases of the Moon Midterm Exam #1
Unit #2: Looking Outward		
Feb 14 – 18	Chapter 5: Radiation & Spectra	Ch 5 Quiz
Feb 21 – 25	Chapter 6: Astronomical Instruments	Ch 6 Quiz
Feb 28 – Mar 4	The History of Spaceflight (online material)	Spaceflight Quiz Transiting Exoplanets
Mar 7 – 11	Chapter 7: Other Worlds: An Introduction to the Solar System Chapter 21: The Birth of Stars & the Discovery of Planets outside the Solar System	Ch 7 & 21 Quiz Midterm Exam #2
Mar 14 – 18	Spring Break	
Unit #3: The Inner Solar System		
Mar 21 – 25	Earth (parts of Ch 8 & 9 plus online material)	Earth Quiz Greenhouse Effect & Sea Ice
Mar 28 – Apr 1	Mercury & Venus (Ch 10 plus online material)	Mercury & Venus Quiz
Apr 4 – 8	Mars (Ch 10 plus online material)	Mars Quiz Midterm Exam #3
Unit #4: The Outer Solar System		
Apr 11 – 15	Jupiter (Ch 11 & 12 plus online material)	Jupiter Quiz
Apr 18 – 22	Saturn (Ch 11 & 12 plus online material)	Saturn Quiz
Apr 25 – 29	Uranus & Neptune (Ch 11 & 12 plus online material)	Uranus & Neptune Quiz
May 2 – 6	Asteroids, Comets, & Small Solar System Bodies (Ch 13 & 14 plus online material)	Small Bodies Quiz Asteroid Discovery Midterm Exam #4
May 10-11	FINAL EXAM	