

# Physics 1304

## Astronomy of the Solar System



**Summer II 2021**

**Instructor: Mr. Stephen Shields**

**Email:** [stephen.shields@angelo.edu](mailto:stephen.shields@angelo.edu)

**Phone:** (325) 486-6934

**Office:** VIN 135

**Office Hours:** by appointment

### **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.

### **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

### **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 may be done with the assistance of the telephone, Collaborate, Skype, etc.

# Assessing Outcomes & Grade Determination

## **Method of Assessing Outcomes**

Student learning outcomes will be assessed with:

- Quizzes (20%) for material are assigned each week. Worksheets will *normally* be posted on Mondays and ALL quizzes based on reading and worksheets will be completed/submitted through Blackboard and due on Fridays. **Worksheets are not for a grade**, they are simply to help guide your reading and prepare you for the quizzes and exams.
- Conceptual Activities (20%) will be posted on Blackboard and due each week on Saturday.
- Four midterm exams (40%) completed **using Respondus LockDown Browser** and due each week on Sunday (except exam #4, see below).
- A comprehensive Final Exam (20%) on **Thursday and Friday, August 12 - 13** 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.

**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.

<b>Assessment</b>	<b>Percent of Total Grade</b>
Quizzes	20
Conceptual Activities	20
Midterm Exams	40
Final Exam (July 9 <sup>th</sup> )	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

# Course Schedule

Week	Reading	Work Due
<b>Unit #1: Background Science</b>		
July 12 - 16	<p><b>Chapter 1:</b> Science &amp; the Universe: A Brief Tour</p> <p><b>Chapter 2:</b> Observing the Sky: The Birth of Astronomy</p> <p><b>Chapter 3:</b> Orbits &amp; Gravity</p> <p><b>Chapter 4:</b> Earth, Moon, &amp; Sky</p>	<p><u>Quizzes due Friday (4):</u> Ch 1, Ch 2, Ch 3, Ch 4</p> <p><u>Activity due Saturday:</u> <b>Greenhouse Effect &amp; Sea Ice</b></p> <p><u>Test due Sunday:</u> <b>Midterm Exam #1</b></p>
<b>Unit #2: Looking Outward</b>		
July 19 - 23	<p><b>Chapter 5:</b> Radiation &amp; Spectra</p> <p><b>Chapter 6:</b> Astronomical Instruments</p> <p><b>The History of Spaceflight</b> (Blackboard material)</p> <p><b>Chapter 7:</b> Other Worlds: An Introduction to the Solar System</p> <p><b>Chapter 21:</b> The Birth of Stars &amp; the Discovery of Planets outside the Solar System</p>	<p><u>Quizzes due Friday (4):</u> Ch 5, Ch 6, Ch 7 &amp; 21, Spaceflight</p> <p><u>Activity due Saturday:</u> <b>Phases of the Moon</b></p> <p><u>Test due Sunday:</u> <b>Midterm Exam #2</b></p>
<b>Unit #3: The Inner Solar System</b>		
July 26 - 30	<p><b>Earth</b> (parts of Ch 8 &amp; 9 plus in-class material)</p> <p><b>Mercury &amp; Venus</b> (Ch 10 plus in-class material)</p> <p><b>Mars</b> (Ch 10 plus in-class material)</p> <p><b>Asteroids</b> (Ch 13 &amp; 14 plus in-class material)</p>	<p><u>Quizzes due Friday (4):</u> Earth, Mercury &amp; Venus, Mars, Asteroids</p> <p><u>Activity due Saturday:</u> <b>Asteroid Discovery</b></p> <p><u>Test due Sunday:</u> <b>Midterm Exam #3</b></p>
<b>Unit #4: The Outer Solar System</b>		
August 2 - 6	<p><b>Jupiter</b> (Ch 11 &amp; 12 plus in-class material)</p> <p><b>Saturn</b> (Ch 11 &amp; 12 plus in-class material)</p> <p><b>Uranus &amp; Neptune</b> (Ch 11 &amp; 12 plus in-class material)</p> <p><b>Dwarf Planets</b> (Ch 12 plus in-class material)</p> <p><b>Comets</b> (Ch 13 &amp; 14 plus in-class material)</p>	<p><u>Quizzes due Friday (5):</u> Jupiter, Saturn, Uranus &amp; Neptune, Dwarf Planets, Comets</p> <p><u>Activity due WEDNESDAY</u> <b>AUGUST 11: Transiting Exoplanets</b> Test due <u>WEDNESDAY</u></p> <p><u>AUGUST 11:</u> <b>Midterm Exam #4</b></p>
August 12 - 13	<b>FINAL EXAM</b>	

## 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](#)<sup>1</sup>
- [Angelo State University Catalog](#)<sup>2</sup>

### **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](#).<sup>3</sup>

### **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](mailto:ADA@angelo.edu). For more information about the application process and requirements, visit the [Student Disability Services website](#).<sup>4</sup> The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford  
Director of Student Disability Services  
Office of Student Affairs  
325-942-2047  
[dallas.swafford@angelo.edu](mailto: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](#)<sup>5</sup> for more information.

### **Plagiarism**

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#)<sup>6</sup> 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](#).<sup>7</sup>

## **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](#)<sup>8</sup> for more information.

## **Title IX at Angelo State University**

The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including: sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance.

Students are encouraged to report any incidents of sexual misconduct directly to ASU's Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator at:

Michelle Boone, J.D.  
Director of Title IX Compliance/Title IX Coordinator  
Mayer Administration Building, Room 210  
325-942-2022  
[michelle.boone@angelo.edu](mailto:michelle.boone@angelo.edu)

**You may also file a report online 24/7 at [www.angelo.edu/incident-form](http://www.angelo.edu/incident-form).**

If you are wishing to speak to someone about an incident in confidence you may contact the University Health Clinic and Counseling Center at 325-942-2173 or the ASU Crisis Helpline at 325-486-6345.

For more information about Title IX in general you may visit [www.angelo.edu/title-ix](http://www.angelo.edu/title-ix).

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

<sup>2</sup> <https://www.angelo.edu/catalogs/>

<sup>3</sup> <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

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

<sup>5</sup> <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

<sup>6</sup> <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

<sup>7</sup> [https://www.angelo.edu/dept/writing\\_center/academic\\_honesty.php](https://www.angelo.edu/dept/writing_center/academic_honesty.php)

<sup>8</sup> <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>