

# ***COURSE NUMBER PHY1303***

## ***Fundamentals of Astronomy***

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Phone:

Office: VIN 118

**Office Hours: Contact me by e mail anytime 9am to 9 pm**

This Spring it seems we will have 8 weeks for the course. If modifications turn out to be necessary, we will all be notified by Administration. Currently, the calendar specifies that the course runs from January 18-March 11 (actually I will accept some submissions until Sunday, March 13).

Our top priority is student and employee health and safety, and we are monitoring developments related to COVID-19. The university's top leadership and a health response team are in regular communication about these evolving circumstances. We are coordinating with our healthcare partner, Shannon Clinic, and local health authorities to ensure we have the best possible plans in place for prevention and response. We are following recommendations of the Centers for Disease Control and the Texas Department of State Health Services. We encourage everyone to go to the [CDC website](https://www.cdc.gov) or the [Texas Department of State Health Services website](https://www.dshs.texas.gov) to stay updated. At this time it appears we will have adequate time to do the full set of lessons in this course.

Although you will be at your computer (someplace) when occupied with this course, ASU has required that I include the following statement regarding wearing a mask.

**"Course Syllabus Statement on Required Use of Masks/Facial Coverings by Students in Class  
At Angelo State University**

As a member of the Texas Tech University System, Angelo State University has adopted the mandatory [Facial Covering Policy](#) to ensure a safe and healthy classroom experience. Current research on the COVID-19 virus suggests there is a significant reduction in the potential for transmission of the virus from person to person by wearing a mask/facial covering that covers the nose and mouth areas. Therefore, in compliance with the university policy students in this class are required to wear a mask/facial covering before, during, and after class. Faculty members may also ask you to display your daily screening badge as a prerequisite to enter the classroom. You are also asked to maintain safe distancing practices to the best of your ability. For the safety of everyone, any student not appropriately wearing a mask/facial covering will be asked to leave the classroom immediately. The student will be responsible to make up any missed class content or work. Continued non-compliance with the Texas Tech University System Policy may result in disciplinary action through the Office of Student Conduct.”

I will be in my office in the Vincent Building only if rational health safety allows. Your best way of contacting me via email. Please feel free to contact me if you have any problems whatsoever in this course—or if you're doing well, and just want to talk about the wonders and mysteries of the universe. It’s in all our interests, and I care, that you do well! Telephone is often less useful because the visual aspect is missing and it is often important if I am to respond properly to you. You may also request a video conference, and it’s easy for me to set up for you.

## **Course Description**

This course is a three-hour introduction to stellar astronomy. A separate laboratory course can be taken. The sequence of astronomy courses (PHYS 1303 and PHYS 1304) plus labs (PHYS 1103 and PHYS 1104) satisfy the eight-hour physical science with lab requirement for most degree programs. This course can be used for elective credits in most degree programs. PHYS 1303, Fundamentals of Astronomy, is an introduction to astronomy covering night sky observations, the techniques and methods of modern astronomy, and basic concepts related to the Sun, stars, our galaxy, other galaxies, the large scale structure of the universe, and cosmology, the study of the origin and evolution of the universe. This is an eight-week, online course that begins on first week of the semester and runs for 8 weeks.

**Note: This course is a full 16-weeks' material done in 8 weeks. It demands a lot of work in a compressed time. It cannot be done by working a couple hours on an evening trying to look up answers in the text. It requires some effort every day, a minimum of 3-4 hours and no less per week. Owing to COVID-19 arrangements we have a slightly shortened time, but fully adequate to do all 8 lessons.**

## **Prerequisite and Co-requisite Courses**

None

## **Prerequisite Skills**

Students can expect to spend a minimum of 6 hours per week to complete all the readings and assignments. The lessons themselves take as long as the student will require to read the materials and watch or listen to media presentations. Assignments are due throughout the week, so it is not possible to do the course successfully by doing it only on weekends.

**Note: This course cannot be done successfully by attempting to do a week's work on the weekend. Binge studying is counterproductive and seldom gives decent results. Each week's material opens on Monday just after 12 AM and closes the following Sunday at 11:59 PM. If you forget to do your work during the week and the lesson closes you won't be able to access it late. On exercises in Smart Work 5 you will be allowed to submit late work in Lessons 1-6 up to 5 days late, but with a 5% per day penalty.**

## **Student Learning Outcomes**

Upon completion of this course, students will be able to:

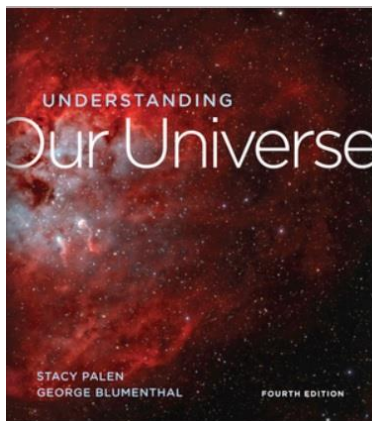
1. Apply scientific reasoning to future astronomical discoveries to understand their validity as well as to everyday situations.
2. Demonstrate an understanding that science is based upon observations of the universe and how that is used to understand some basic phenomenon of our world.
3. Discuss how gravity is related to the formation, interaction, and evolution of the solar system.

Student learning outcomes will be assessed through a combination of assignments submitted each week online. Every question is underwritten by a specific learning objective.

## Course Delivery

This is an online course offering that will be delivered via Blackboard.

## Required Texts and Materials



For this class, we will be using *Understanding our Universe* 4<sup>th</sup> ed. w/access. **You must use the 4<sup>rd</sup> edition as well as have access to Smartwork5 that comes with the text.** You can purchase the book from the Angelo State University bookstore (all new print copies will come with access to the e-book and Smartwork5). You should also be able to purchase the e-book or Smart Work 5 through the Bookstore. To purchase the e-book or Smartwork5 directly from the publisher or to register a code, please see the instructions below:

To purchase access or register a bookstore code, please follow these instructions:

1. Navigate to your Blackboard Course
2. Click on "Norton Resources"
3. Select "E-book"
4. From there, you will be navigated to a log in screen. Select "No, I need to register, purchase, or sign up for trial access."
5. Create and account using your **school email address**. If you have a registration code, enter your code. If you would like to purchase access to the e-book or Smartwork5 standalone select "I want to view purchase options."

### Smartwork5 access:

Smartwork5 will be used in this class for homework assignments. To access all Smartwork5 assignments, please follow the following instructions:

1. Before doing any of the following, go to the [short explanatory video](#) on accessing Smart Work 5.
2. Navigate your Blackboard Course
3. Click on "Norton Resources"

4. Select "Smartwork5 Assignments". **In order for your grades to transfer, you MUST access Smartwork5 through the link in Blackboard NOT the outside publisher site. Through this link, you do not need a Student Set ID.**
5. If you have already purchased access to the e-book or Smartwork5, or have registered your e-book code, sign in using your W.W. Norton account.
6. Do NOT select the 21-day trial. It will run out before the end of the course and you won't have access to the book or to Smart Work.

### **W. W. Norton Technical Support**

If you are experiencing technical issues with the e-book or Smartwork5, the publisher has a help desk that can be accessed here: <https://wwnorton.com/tech-support>

This is a nominal 8 week course. Each "module" covers one week of the course. Each week's work is available Monday morning at 12:01 AM. Each week's work closes at 11:59 PM Sunday. [Even though a holiday may occur during the 8 weeks, the course will be open at 12:01 AM on Monday, and all work is due by Sunday night at midnight.

You may obtain the course material from the Angelo State Bookstore. The website is:

<http://shopangelo.com>

All versions of the texts are available through the bookstore. The bookstore phone is 325-942-2335

## **Technology Requirements**

You must have access to a good enough Internet connection to be able to use Blackboard and e mail. You will require a computer. You will not be able to do the course using a phone or a pad. You also need to acquire access to SmartWork from W. W. Norton, and that is explained above.

## **Communication**

In this class, we will communicate primarily by writing, mostly in e mail. In any form of communication, you are expected to treat your fellow students and your instructor with courtesy and respect. In this class, the following rules of netiquette apply:

- Spelling and grammar count. Don't use slang terms or shorthand "text-speak" abbreviations.
- It's okay to disagree, but it's not okay to insult. Flame-wars and [ad-hominem](#) attacks are not acceptable.
- No profanity. Offensive language will not be tolerated.
- No racial, ethnic, or cultural slurs. This may result in your removal from the class.

## Virtual communication:

I don't expect to have Office hours in person. However, I will have email at hand from 8 AM to 9 PM every day. I will, when necessary, be available by telephone.

Please note my “**Netiquette**” **Guidelines** for making posts in Blackboard as stated above.

## Grading

### Evaluation and Grades

Course grades will be determined as indicated in the table below.

Assessment	Percent of Total Grade
Homework	75
Discussion Board	10
3 Projects	15
Total	100%

Above are listed the course requirements and the percentages for each activity. The base points for the course are 1000. It is possible to earn more than 1000 points by doing extra credit activities (listed on Blackboard).

Since this is an ONLINE COURSE, it is really important that you feel part of a group instead of a lone wanderer trying to navigate astronomy. To that end there is a **Discussion Board**. There are non-graded forums where you may ask questions, and offer suggestions for the course. In Week 1 you are to **introduce yourself**. The forum explains what you are to do. This can be significant in your grade, since you may earn up to 12.5 points for a set of posts each week (your thread and responses to at least two other students' threads). **For every graded forum to get full credit you must create a thread and post at least two responses to threads created by other students THREADS MUST BE SET BY THURSDAY MIDNIGHT, and responses by midnight, Sunday.**

There are three astronomy projects, described in Blackboard. They are due at the end of the 3<sup>rd</sup>, 5<sup>th</sup>, and 7<sup>th</sup> weeks (Sunday, Midnight). Each project is worth 50 points, total points for Research Projects is 150. The following is the planned material (subject to change by COVID-19). The following is a schedule of points and due dates.

Smartwork grades are visible to you in Smartwork as a percent. I will post columns in My Grades showing the actual number of course points earned for each Smartwork assignment. The total available Smartwork points will be 1000. NOTE:

**Extra credit** is also available as described in the Extra Credit tab in the Main Course Menu on Blackboard. An optional final will also be available for extra credit. Other extra credit may be earned as described in the Extra Credit tab in the Main Course Menu on Blackboard. IN ADDITION, I have linked several short videos on specific topics in Astronomy. Each is associated with a short (5 question) optional quiz for extra credit.

This is an 8-weeks course, and things become due awfully fast. NO MAKEUPS unless you can justify (to my satisfaction) dire circumstances, **beyond your control**. The exercises on Smart Work already have built-in allowances for late work. You just have to keep up with the course. Getting a late start for whatever reason is not, in itself, justification for makeup work.

The nominal BASE POINTs then for a full 8-weeks would be 1000.

## Grading System

Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:

- A = 90.00-100 points
- B = 80.00-89.99 points
- C = 70.00-79.99 points
- D = 60.00-69.99 points
- F = 0-59.99 points (Grades are not rounded up)

## Assignment and Activity Descriptions

As stated above, this course is built around earning credit by demonstrated performance.

Therefore, there are no tests. Three activities make up the way to earn points:

- **SmartWork Homework:** Accessed through Blackboard for each Lesson
- **Discussion Board:** Presents a new topic each week. Students are to set a thread (by Thursday each week) and respond to at least two other students' threads (by Sunday night). The last week of the course has special deadlines.
- **Projects:** There are 3 projects based on "Learning Astronomy by Doing Astronomy," due in weeks 3, 5, and 7. You are guided through a series of steps to apply knowledge of Astronomy to carrying out an analysis in an astronomy situation.

# 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 Miller, J.D.  
Special Assistant to the President and Title IX Coordinator  
Mayer Administration Building, Room 210  
325-486-6357  
[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/current-students/student-handbook/>

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

<sup>3</sup> <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>

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

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

<sup>6</sup> <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>

<sup>7</sup> [https://www.angelo.edu/current-students/writing-center/academic\\_honesty.php](https://www.angelo.edu/current-students/writing-center/academic_honesty.php)

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