

Course Number: PHYS 1103

Course Title: Stellar Astronomy Lab (online)

Instructor Name: Fred L. Wilson, Ph. D.

Office Location: VIN 118

(325) 486-6984

fwilson@angelo.edu

Office Hours: M-F 2-4 PM

Virtual Office M-F, 2-4 PM (video and audio through Blackboard)

Course Description/Overview

This course is a one hour introduction to study of the current knowledge and techniques of modern astronomy. Course content focuses on the universe beyond the solar system including studies of nebulae, the life cycles of stars, galaxies, and cosmology. Emphasis is placed on current knowledge of the universe and how astronomical measurements are made. This lab and its related course (PHYS1303) and the companion courses (PHYS 1304/1104) satisfy the eight hour physical science with lab requirement for most degree programs and can also be used in most degree plans for elective credit hours. **No one should take this lab without having taken PHYS 1303 or be taking it at the same time.**

Course Bibliography and Required Readings:

Text: All text materials needed for the course are contained within the *Starry Night* software required for this lab. You can obtain *Starry Night* by purchasing it from Simulation Curriculum online

<http://store.simulationcurriculum.com/collections/college/products/starry-night-college-version-7-student-download>

This is the store for downloading *Starry Night*, v. 7. You will need an access code for these courses, which is **Code: 71c5** . **If you cannot open the site by clicking on above link, then copy the link and paste it into your browser.** Students will be able to purchase and download their student edition for \$29.95. Download takes 15 minutes or less.

Please call Simulation Curriculum (Michael Goodman), or go to the support site if they have any problems. Simulation Curriculum Corp. [877-290-8256](tel:877-290-8256)

Prerequisites

There are no prerequisite courses for this course, however it is foolish to attempt to take this lab course if you have not already taken or are taking PHYS1303 Fundamentals of Astronomy.

Technical skills required for this course

As with all online courses, students must be able to operate a computer and have the necessary technical skills to navigate around a web page. Additional technical skills are not a prerequisite for this course, however your computer must meet [minimum requirements to operate Blackboard](#).

Time spent on this course

Students can expect to spend a minimum of 2 hours per week to complete all the readings and assignments. The lab exercises are relatively short, but do require following instructions in *Starry Night* and completing required worksheets.

Goals, Objectives, and Outcomes

Course Objectives/Learning Outcomes

When you finish this course you should be able to:

- **Objective One:** Understand and apply appropriate methods and technology to the study of the natural sciences.
- **Objective Two:** Recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
- **Objective Three:** Identify and recognize the differences among competing scientific theories.
- **Objective Four:** Obtain the intellectual ability to translate, interpret, and extrapolate the most important scientific models governing modern astrophysics, the practices and methodologies used by modern astronomers in constructing astrophysical models, and to be familiar with the astronomical objects studied by astronomers.
- **Objective Five:** Further develop critical thinking and problem solving skills in the area of astronomy and the natural sciences.

Student learning outcomes will be assessed through a combination of written assignments and active participation in the cohort discussions established through a discussion board Forum. Just one is posted, and it counts as up to 5 extra points for the course.

Course Organization

Lesson 1: Introduction to Looking at the Sky

Lesson 2: Measuring the Stars

Lesson 3: Constellations

Lesson 4: Introduction to Stars

Lesson 5: Star Magnitudes

Lesson 6: Star Death

Lesson 7: Galaxies

Lesson 8: Space Exploration

Course Organization

Assignments Due Each Week of PHYS1102

Week #	Exercises to be Done
1	Tutorial, A3, A4 (8+7+4 =19 points)
2	A5, A6, E1, B4 (9 + 7 +5 +4 = 25 points)
3	E2, E3, E4 (6 + 5 + 8 = 19 points)
4	F1, F2, F3 (4 + 2 + 3 = 9 points)
5	F4, F5, F6 (2 + 3 + 4 = 9 points)
6	F7, F8, G1 (1 + 1 + 8 = 10 points)
7	G2, G3, G4 (6 + 4 + 5 = 15 points)
8	H1, H2, H3 (3 + 4 + 3 = 10 points)

The total number of questions for these labs is 116. Each lab will be scored by the total number of points earned by answering that lab. At the end, the sum of points earned will be converted to a percent of 116 possible points.

Week

#	Quizzes Available for Posting	Date Quizzes Close
1	Monday, 8/14, 2019	Sunday, 9/1, 2019
2	Monday, 9/2, 2019	Sunday, 9/8, 2019
3	Monday, 9/9, 2019	Sunday, 9/15, 2019
4	Monday 9/16, 2019	Sunday, 9/22, 2019
5	Monday, 9/23, 2019	Sunday, 9/29, 2019
6	Monday, 9/30, 2019	Sunday, 10/6, 2019
7	Monday, 10/7, 2019	Sunday, 10/13, 2019
8	Monday, 10/14, 2019	Sunday, 10/20, 2019

Extra Credit

You may earn extra credit (5 points per unique show) for attending Planetarium shows. Visit the [Planetarium website](#) for a list of upcoming shows (They are also shown in the Blackboard Course when you open it). If you attend, you must sign in at the door. Write your Name (legibly), your CID, and specify PHYS1103 (online). You can't get credit for seeing the same show twice, but you may get credit for every unique show you attend. If you have questions, email me. If you do not write ONLINE by your name, you will not be given credit.

Grades

Angelo State University employs a letter grade system. Grades in this course are determined on a percentage scale:

A = 90 – 100 % (104.4 points)

B = 80 – 89 % (92.8 points)

C = 70 – 79 % (81.2 points)

D = 60 - 69 % (69.6 points)

F = 59 % and below. (less than 69.6 points)

Final Exam

This course does not require a final exam as you are evaluated on a weekly basis. However all work must be completed by the dates specified in assignments.

Administration

Communication

In this class, we will communicate primarily by writing. Whether in the discussion forums, email, or any other 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 etiquette apply:

- Spelling and grammar count. Don't use slang terms or shorthand "text-speak" abbreviations.
- No profanity. Offensive language will not be tolerated.
- No racial, ethnic, or cultural slurs. This may result in your removal from the class.

Feedback

As the instructor of this course, it is my goal to respond to all communication within one working day. At a minimum, you can expect me to be actively engaged in this course during the stated office hours, and will strive to be responsive at other times as well. In addition, I will do my best to grade all writing assignments and provide feedback within 2 days of the due date for the assignment.

Attendance

This is an online course and attendance is not taken. However, failure to submit lab quizzes, or to communicate or respond to e-mails from the professor, is an indication something is wrong. Therefore, we have made both a significant component of the course grade as an enticement to keep you engaged in the learning process. Failure to participate or communicate on the part of

a student will result in an appropriate reduction of your grade and possibly in your failure of this course.

Late Work

Laboratory assignments are due by the assigned date. No late submissions will be accepted without justification of a situation beyond the control of the student. **University and religious absences do not excuse a student from submitting work by the due date**, as all assignments may be submitted during the week in which they are due. No make ups of any kind are allowed after the fact except in dire circumstances. Don't ask.

Add/Drop dates

Historically, this course is closed long before the semester begins. Do not ask for permission to add unless you can demonstrate a strong case for a dire situation. If a student happens to drop and a space is available you may add through the normal ASU add/drop procedures.

Students may drop this course as specified by the University Administration. Online courses have a web site for online drops.

University Policies

Accommodations for Disability

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.

The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student's responsibility to initiate such a request by contacting:

Ms. Dallas A. Swafford
Director of Student Disability Services
325-942-2047
dallas.swafford@angelo.edu
[Houston Harte University Center](#)

Title IX at Angelo State University: (Administration Provided Statement Required for all Syllabi.)

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 Boone, J.D. You may submit reports in the following manner:

Online: www.angelo.edu/incident-form
Face to Face: Mayer Administration Building,
Room 210
Phone: 325-942-2022
E-Mail: michelle.boone@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 (325942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-9422171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit: www.angelo.edu/title-ix.

Student absence for religious holidays

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](#) for more information.

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](#) for more information.

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 Statement of [Academic Integrity](#).

Plagiarism

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#) 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 via Turnitin. Resources to help you understand this policy better are available at the [ASU Writing Center](#).

Copyright Policy

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