PHYS 1103
Stellar Astronomy Lab

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Office: VIN 118

Office Hours: nominally 2-4, M-F. Contact me by e mail anytime 9am to 9 pm

Course Information

Course Description

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.**

Prerequisite and Co-requisite Courses

List if applicable or write “none.”

Prerequisite Skills

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.
Student Learning Outcomes

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 Delivery

This is an online course offering that will be delivered via Blackboard.
Required Texts and Materials

The only materials required for the course is Starry Night software, obtainable from the Angelo State Bookstore, or from the publisher.

For the bookstore, you may go in person, or go to the store’s website:

http://shopangelo.com

To order from the bookstore you need to supply your ASU e mail address and your CID. (The bookstore phone is 325-942-2335).

You can obtain Starry Night by purchasing it from Simulation Curriculum online

https://store.simulationcurriculum.com/collections/college-astronomy/products/starry-night-college-student-download

This is the store for downloading Starry Night, v. 8. 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.

If you are out of the continental United States, you may not be able to acquire the software from the publisher.

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

Technology Requirements

To successfully complete this course, students need to 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.

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 etiquette 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.

Grading

Evaluation and Grades

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

Assignments Due Each Week of PHYS1103

<table>
<thead>
<tr>
<th>Week #</th>
<th>Exercises to be Done</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tutorial, A3, A4 (8+7+4 =19 points) plus Discussion Board (5 points) Total 24 points</td>
</tr>
<tr>
<td>2</td>
<td>A5, A6, E1, B4 (9 + 7 +5 +4 = 25 points)</td>
</tr>
<tr>
<td>3</td>
<td>E2, E3, E4 (6 + 5 + 8 = 19 points)</td>
</tr>
<tr>
<td>4</td>
<td>F1, F2, F3 (4 + 2 + 3 = 9 points)</td>
</tr>
<tr>
<td>5</td>
<td>F4, F5, F6 (2 + 3 + 4 = 9 points)</td>
</tr>
<tr>
<td>6</td>
<td>F7, F8, G1 (1 + 1 + 8 = 10 points)</td>
</tr>
<tr>
<td>7</td>
<td>G2, G3, G4 (6 + 4 + 5 = 15 points)</td>
</tr>
<tr>
<td>8</td>
<td>H1, H2, H3 (3 + 4 + 3 = 10 points)</td>
</tr>
</tbody>
</table>

The total number of questions for these labs is 121. 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 121 possible points.

Grading System

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

A = 90 – 100 % (108.9 points)
B = 80 – 89 % (96.8 points)
C = 70 – 79 % (84.7 points)
D = 60 - 69 % (72.6 points)
F = 59 % and below. (less than 72.6 points)
Assignment and Activity Descriptions

The week-by-week set of activities are listed above and on Blackboard. The dates for the 8 weeks are shown below.

<table>
<thead>
<tr>
<th>Week #</th>
<th>Quizzes Available for Posting</th>
<th>Date Quizzes Close</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Monday, 1/13, 2020</td>
<td>Sunday, 1/19, 2020</td>
</tr>
<tr>
<td>2</td>
<td>Monday, 1/20, 2020</td>
<td>Sunday, 1/26, 2020</td>
</tr>
<tr>
<td>3</td>
<td>Monday, 1/27, 2020</td>
<td>Sunday, 2/2, 2020</td>
</tr>
<tr>
<td>4</td>
<td>Monday 2/3, 2020</td>
<td>Sunday, 2/9, 2020</td>
</tr>
<tr>
<td>5</td>
<td>Monday, 2/10, 2020</td>
<td>Sunday, 2/16, 2020</td>
</tr>
<tr>
<td>6</td>
<td>Monday, 2/17, 2020</td>
<td>Sunday, 2/23, 2020</td>
</tr>
<tr>
<td>7</td>
<td>Monday, 2/24, 2020</td>
<td>Sunday, 3/1, 2020</td>
</tr>
<tr>
<td>8</td>
<td>Monday, 3/2, 2020</td>
<td>Sunday, 3/8, 2020</td>
</tr>
</tbody>
</table>

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
- Angelo State University Catalog

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.

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. 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  
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](#) for more information.

**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. Resources to help you understand this policy better are available at the [ASU Writing Center](#).

In this course, plagiarism particularly applies to posting the work of someone else as your own. Any copying or reposting of answers from a source other than your own work will be considered an flagrant violation of this policy.
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 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

You may also file a report online 24/7 at 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.

Course Schedule

All dates are shown above and are posted in the Blackboard site for the course.

1 https://www.angelo.edu/student-handbook/
2 https://www.angelo.edu/catalogs/
3 https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php