Instructor Information

Name: Dr. Justin Bankert
Email: jbankert@angelo.edu
Office: Vincent 123
Office Hours: Tuesday, Thursday: 9:00 AM - 11:00 AM and 1:00 PM - 3:00 PM
Office Phone: (325) 486-6787

Class Times and Locations

Room: ASU Planetarium (VIN P-02)
Times: Monday, Wednesday, Friday; 9:00 AM - 9:50 AM

Class Overview and Goals

Physics 1303, Fundamentals of Astronomy, is a three credit hour introductory study of the current knowledge and techniques of astronomy and astrophysics. Phenomena spanning a large range of distances and masses (from stellar scale, through galactic scale, to universe scale) will be explored in this class.

After completing the Fundamentals of Astronomy course, you should be able to comprehend the most important scientific models governing modern astrophysics and be familiar with a broad range of phenomena studied by astronomers. Furthermore, you should be able to comprehend the practices and methodologies used in constructing modern astrophysical models.

Textbook

For this class, we will use a free online text book provided by the Openstax organization. The text book can be located at this website:

https://openstax.org/details/books/astronomy

Homework, Exams, and In Class Work

Homework will be assigned through Blackboard on Monday afternoons and will be due on Friday at midnight. Because you have four days to complete homework, extensions will not be granted. There will be three midterm exams. The lowest midterm exam grade will be dropped. If you need to miss an exam, that will count as your dropped exam. There will be in class activities which will count towards your final grade. Thus missing class will cause your grade to suffer.
Top Hat

We will be using the Top Hat (www.tophat.com) classroom response system in class. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message.

You can visit the Top Hat Overview (https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide) within the Top Hat Success Center which outlines how you will register for a Top Hat account, as well as providing a brief overview to get you up and running on the system.

Grading

| In-Class:   | 10 % |
| Homework:  | 40 % (Weekly Assignments) |
| Midterms:  | 30 % (15 % Each) |
| Final:     | 20 % |

Extra credit will be given for attending public planetarium shows. You get a bonus of 1% of your total final grade for attending each of the four different shows this semester once. This amounts to a possible total of 4% of your final grade. Public shows are Thursday nights at 7 & 8 PM. Other extra credit opportunities may be announced throughout the semester.

Schedule

*Some dates may change as the semester progresses.

| Week of January 14 | Chapter 1 | Introduction to the Course |
| Week of January 21 | Chapter 3 | Gravity and Orbits |
| Week of January 28 | Chapter 5 | Properties of Light |
| Week of February 4 | Chapter 15,16 | Midterm 1, The Sun |
| Week of February 11 | Chapter 17,18,19 | Measuring Stars |
| Week of February 18 | Chapter 20,21 | ISM and Star Formation |
| Week of February 25 | Chapter 22 | Low Mass Stellar Evolution |
| Week of March 4 | Chapter 22,23 | High Mass Stellar Evolution, Midterm 2 |
| Week of March 11 | None | Spring Break |
| Week of March 18 | Chapter 24 | Relativity and Black Holes |
| Week of March 25 | Chapter 24 | Gravitational Wave Astronomy |
| Week of April 1 | Chapter 25 | The Milky Way |
| Week of April 8 | Chapter 26 | Galaxies |
| Week of April 15 | Chapter 27 | Midterm 3, Extra-Galactic Astronomy |
| Week of April 22 | Chapter 28 | Large Scale Structure |
| Week of April 29 | Chapter 29 | Cosmology |
| May 8 | 8:00-10:00 AM | Final Exam |
Planetarium Class Etiquette

- No food, drinks, or tobacco products are allowed in the planetarium or outer lobby area.
- Please do not leave trash in the planetarium or lobby.
- Please do not disturb fellow students during class time.
- Please do not put your feet up on the chair in front of you.
- Silence cell phones and other electronic devices.
- No texting/messaging during class.
- Please let me know if you will be using any electronic device during class.

Student Disability Services

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 students responsibility to initiate such a request by contacting Ms. Dallas A. Swafford, Director of Student Disability Services; dallas.swafford@angelo.edu

Title IX

Angelo State University is committed to the safety and security of all students. If you or someone you know experience sexual harassment, sexual assault, domestic or dating violence, stalking, or discrimination, you may contact ASUs Title IX Coordinator: Michelle Nicole Boone, J.D. Director of Title IX Compliance; michelle.boone@angelo.edu

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.

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 ASUs Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone elses work, idea, etc., and passing it off as ones 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**

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

**General Policies**

All students are required to follow the policies and procedures presented in these documents: Angelo State University Student Handbook, Angelo State University Catalog