



PHYS-1404-003IN
The Solar System
Spring 2022
Online

Instructor Information: **Name:** Meade Brooks
 Email: bbrooks17@com.edu
 Note – Send assignments to me in **Blackboard**, NOT at the above email address.

Office hours and location: Online by appointment

Required Textbook: *Cosmic Perspective Plus Mastering Astronomy, 9th Edition*, authors: Jeffrey O. Bennett, Megan O. Donahue, Nicholas Schneider, Mark Voit.

Your exams and homework assignments are accessed in the MasteringAstronomy online assignment system. You may purchase course materials online at the Pearson store. A **digital package** is available (eText plus MasteringAstronomy – 6 month license) for a reduced rate of \$64.99. This option gives you immediate textbook access:

<https://www.pearson.com/store/p/cosmic-perspective-the/P100002967802>

When prompted enter the following **COURSE ID** for this class: **brooks99923**

Once you are registered in MasteringAstronomy for this course, you will have access to your assignments. Be sure your textbook purchase includes MasteringAstronomy! You will be unable to complete your chapter assignments or exams without access to MasteringAstronomy.

Course Description: This course provides an introductory account of the Earth, Moon, planets, Sun, and other members of our solar system, including theories of their origins. The history and evolution of modern astronomy will be discussed as well as gravity, the nature of light, and the use of telescopes. The course is conceptual and nonmathematical. A laboratory component consisting of observations is also part of the course.

Course requirements: Your knowledge of the material covered in the course objectives is evaluated using the following assignments and assessments:

Introduction: An introduction of yourself to the class through the “Introduce Yourself” discussion board

Discussion Boards: Discussion board posts and replies will focus on a certain question/statement concerning astronomy. Your post must fully respond to the discussion question/statement, be at least 100 words, and be made at least two days prior to the due date. Include a source for a stronger post and include any relevant images or illustrations. Before the discussion due date, make replies (**at least 3**) in response to posts by other students that address and further the discussion (don't just "agree and repeat"). Correct spelling, grammar, and punctuation are also taken into account.

Lab Activities: Students will participate in a variety of hands-on lab activities which make use of direct observation of astronomical objects or models.

Unit Exams: 3 exams are given online through MasteringAstronomy. The exams are designed and administered to promote mastery of course objectives addressed in each unit.

Project: A group project submitted as a PowerPoint presentation through Blackboard. More information will be provided in class.

Method of Evaluation: Course averages will be calculated as follows:

Homework Problems	30 %
Lab Activities	20 %
Discussions	20 %
Group Project	10 %
Tests (3 exams)	20 %

100 % possible

Grades will be determined as follows:

90 – 100	= A
80 – 89	= B
70 – 79	= C
60 – 69	= D
0 – 59	= F

Assignments: All assignments and exams must be completed and submitted by specified deadlines. All deadlines appear in the course outline of the syllabus as well as the course schedule in Blackboard and it is the student's responsibility to ensure that all assignments have been submitted by the deadline.

Assignments that correspond to each chapter should be completed as listed below.

Note: This is an approximate schedule and is subject to minor changes.

Week 1	Chapter 1: A Modern View of The Universe
Week 2	Chapter 2: Discovering the Universe for Yourself
Week 3	Chapter 3: The Science of Astronomy
Week 4	Chapter 4: Making Sense of The Universe: Understanding Motion, Energy, And Gravity
Week 5	Chapter 5: Light and Matter: Reading Messages From The Cosmos
Week 6	Exam 1, Chapters 1 – 5
Week 7	Chapter 6: Telescopes: Portals of Discovery
Week 8	Chapter 7: Our Planetary System
Week 9	Chapter 8: Formation of the Solar System
Week 10	Chapter 9: Planetary Geology: Earth and the Other Terrestrial Worlds
Week 11	Exam 2, Chapters 6 – 9
Week 12	Chapter 10: Planetary Atmospheres: Earth And The Other Terrestrial Worlds
Week 13	Chapter 11: Jovian Planet Systems
Week 14	Chapter 12: Asteroids, Comets, and Dwarf Planets: Their Nature, Orbits, And Impacts
Week 15	Chapter 13: Other Planetary Systems: The New Science of Distant Worlds
Week 16	Exam 3, Chapters 10 – 13

Attendance Policy: There are no on-campus meetings for this course. However, students are expected to regularly log into class and spend 4 to 6 hours each week reviewing new information, participating in discussions, completing assignments, taking exams, and/or other activities listed in the syllabus as scheduled by the instructor. Full participation is required to earn credit for graded activities.

Communicating with your instructor: ALL electronic communication with your instructor (outside of Blackboard) must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. The best way to contact me is within the Blackboard course mail system. I will respond to e-mails within two days of receiving them, with the exception of weekends, holidays, and unscheduled COM closures.

Netiquette Expectations: Sensitive discussion topics may be brought up in this class, so please think carefully before responding. Keep these guidelines in mind:

- Standards of courtesy and respect must be maintained at all times in our online “classroom.” Join in the discussion but remember that this is still a “classroom” setting and that respect and consideration are crucial for any intellectual discussion.
- Discussion areas are the place for intelligent and respectful airing of ideas. Name-calling and personal attacks are not permitted.
- Any violation of the standards of appropriate behavior online will be reported to the Dean of Students and appropriate disciplinary action will be taken by the college.

A good rule of thumb is that you should never post a response online that you would not be willing to say in person. Once the course begins, please use your Canvas communication tools to contact Professor Brooks.

Success Tips for Students:

- READ announcements and instructions carefully.
- Do not procrastinate!
- Log in to course at least two times per week on separate days
- Read the textbook and view PowerPoint lectures.
- Ask for help from your instructor and classmates.
- Make use of supplemental resources (such as practice quizzes) provided in the publisher study area.

Concerns/Questions: If you have any questions or concerns about any aspect of this course, please don't hesitate to contact me. If, after discussing your concern with me, you continue to have questions, please contact our science department chair Sheena Abernathy at (409)933-8330 or sabernathy@com.edu.

Classroom Conduct Policy: College of the Mainland requires that students enrolled at COM be familiar with the Standards of Student Conduct, which can be found in the on-line Student Handbook.

<http://www.com.edu/student-services/student-handbook.php>. Students are expected to be familiar with and abide by the Student Code of Conduct. Any violations of the Code of Conduct will result in a referral to the Dean of Students and may result in dismissal from this class.

Academic Dishonesty: Any incident of academic dishonesty will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty, such as cheating on exams, is an extremely serious offense and will result in a **grade of zero** on that exam and the student will be referred to the Dean of Students for the appropriate disciplinary action.

Core Objective Information:

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Demonstrate knowledge of our place in the universe and how astronomy applies to us, astronomical terminology, our moon's phases, and lunar and solar eclipses; the origins of modern astronomy, gravity and how it affects planetary motion, and light and the use of telescopes in astronomy; the origin of our solar system and Earth; terrestrial planets; gas giants and other objects in our solar system.	Critical Thinking Skills: Students will demonstrate creative thinking, innovation, and the ability to analyze, evaluate, and synthesize information.	Unit Exams
2. Analyze and interpret data from observations to draw valid scientific conclusions and communicate these conclusions in a clear and articulate manner	Empirical and Quantitative Skills: Manipulate and analyze observable facts, evidence, or numerical data and arrive at an informed conclusion.	Observation Assignments
3. Scientifically justify stances on modern scientific controversies related to the solar system.	Communication Skills: Develop, interpret, and express ideas through written communication.	Discussion Boards

4. Demonstrate the ability to work effectively with others to support and accomplish a shared goal while recognizing and respecting different viewpoints.	Teamwork: Students will demonstrate the ability to work effectively with others to support and accomplish a shared goal, while recognizing and respecting different viewpoints.	PowerPoint Project
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Critical Thinking Skills will be assessed using an assignment that requires students to answer questions on exams that involve analyzing data tables of stellar objects, and images of orbital locations, and then choosing the correct conclusion to the question.

Empirical and Quantitative Skills will be assessed using an assignment that requires students to make observations of moon phases, gravitation, Earth’s geology, terrestrial planets, and Jovian planets, and then analyze data collected from observations to come to logical conclusions.

Communication Skills will be assessed using an assignment that requires students to make posts to discussion boards concerning why the study of astronomy is important, modern controversies, the uniqueness of the solar system, the formation of Venus and Mars, and the definition of Pluto, with supportive reasoning and documented evidence; make replies to other student posts on the above topics that further the discussion.

Teamwork Skills will be assessed using an assignment that requires students to work in groups on a project exploring various aspects of the solar system.

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook.

https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf.

An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor’s professional judgment of the quality of the student’s work and performance is also not an admissible basis for a grade appeal.

https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Counseling Statement: Any student needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to set up their

appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a “W” grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is March 2. The last date to withdraw from the 16-week session is April 25. The last date to withdraw for the 2nd 8-week session is May 4.

F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the F_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

COVID-19 Statement: All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland’s Coronavirus Information site at www.com.edu/coronavirus. In compliance with Governor Abbott's May 18 Executive Order, face coverings/masks will no longer be required on COM campus. Protocols and college signage are being updated. We will no longer enforce any COM protocol that requires face coverings. We continue to encourage all members of the COM community to distance when possible, use hygiene measures, and get vaccinated to protect against COVID-19. Please visit com.edu/coronavirus for future updates.