

Astronomy 104: Astronomy of the Solar System

Spring 2021

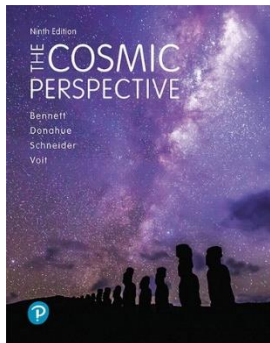
Professor Stacy Hicks

Office: Virtual via Zoom (Link to virtual office hours in Blackboard); KTH 2016 (I will be working off campus the majority of the time)

Office Hours: Tuesdays 1-2 pm via Zoom; other times TBA, or by appointment;
Link to Zoom office hours found in Blackboard

Email: stacy.hicks@wku.edu

Course Meeting: Asynchronous web delivery; Optional Zoom meetings for help/work on labs, etc.: Wednesdays 12:40-1:30 pm CT.



Course Materials (Provided through Day One Access Program):

(All required materials are provided through WKU's Day One Access Program. You will automatically have access to the etext version of this text and a subscription to Mastering Astronomy on first day of class. It is not necessary to purchase a hard copy of the text, however, there is an option to purchase hard copy through WKU Bookstore if you prefer a physical copy.)

Required Textbook: The Cosmic Perspective: The Solar System, 9th
edition by Bennett, et. al.

ISBN-13: 9780135729458, (etext version) Pearson Prentice Hall.

Other Required Materials: Subscription access to Mastering Astronomy (Also provided through Day One Access Program)

Course description: This is an introductory study of that portion of the physical universe extending beyond the earth from the sun to the outer limits of the solar system, including its relationship to the rest of the universe and to the earth. Topics include phenomena visible from earth, the earth's motions and timekeeping, eclipses, motions of planets and satellites, and the historical development of scientific understanding of the solar system. Comparison of physical properties among the sun, planets, and satellites interrelate the earth and its life forms with the extraterrestrial environment that supported the development and continuation of life on earth. This course contains an integral laboratory component that includes observation exercises.

Colonnade General Education Outcomes in Natural Sciences:

This course addresses WKU general education expectations in science. You will be able to:

1. Demonstrate an understanding of the methods of science inquiry.
2. Explain basic concepts and principles in one or more of the sciences.
3. Apply scientific principles to interpret and make predictions in one or more of the sciences.

4. Explain how scientific principles relate to issues of personal and/or public importance.

Course Learning Outcomes:

As a result of working through this course, you will be able to:

- Understand the development of scientific thought and practices.
- Understand how scientific practices allow us to understand the solar system
- Understand the development and state of our current knowledge of the evolution, nature and structure solar system
- Understand the location and motions of celestial objects in the sky
- Be able to distinguish between various types of astronomical objects
- Understand the diversity of objects in the solar system
- Gain perspective on Earth's place in the solar system and on how understanding the other objects in the solar system leads to a greater understanding of Earth

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Class Attendance policy:

This class will be delivered asynchronously via Blackboard therefore class attendance is not required. An optional open Zoom meeting will be held on Wednesdays from 12:40-1:30 pm CT. During this time you are welcome to attend to get help/work on labs in groups/discuss content, etc. On Wednesday, January 20, the Zoom session will be devoted to registering for Mastering Astronomy and going over course format/syllabus. If you have any issues registering for Mastering Astronomy or have any questions, I encourage you to attend this meeting.

Grading Policy

Your grade for this course will be based on your performance on in class activities, quizzes homework, exams and a comprehensive final exam outlined as follows:

Grade Component	Percentage
Lab Activities	20%
Reading quizzes	10%
Homework	20%
Exams (3 Exams @ 10% ea)	30%
Final Exam	20%

The overall grade will be assigned according to the usual distribution: 90-100="A", 80-89="B", 70-79="C", 60-69="D", below 60 – "F.

Course Structure:

This course will be delivered through Blackboard with content set up in module style (i.e. material is split into 4 units. Materials and resources including text, powerpoints, and sometimes videos will be posted in the appropriate unit. Generally, I will post videos with instructions/important information. Make sure you watch/read posted materials. All assignment links, quizzes, and labs will be posted within the unit.

Lab Activities (20%)

This course fulfills the E-SL colonnade requirement. Lab activities will vary from night time observing, independent observational activities, and pencil and paper labs. There will be between eight and ten lab activities during the semester. Labs turned in after they are due will be penalized, but may still be submitted. Email submissions are not acceptable, all labs will be submitted through Blackboard. **You must obtain a lab average of 70% to pass the course with a C or above. If you fail to obtain a passing average on the laboratory portion, you will fail the course, regardless of your weighted average.**

There will be several labs due in each unit. Some of these will be observational labs which will require observations over days or weeks. Do not wait until the last minute to start observation labs.

Reading Quizzes (10%)

A reading quiz will be given for each chapter. I encourage you to work on these quizzes as you read through the chapter. This will help you identify important concepts in each chapter.

Homework (20%):

There will be a homework assignment for each chapter and will be due by 11:59 pm on the assigned due date. Homework will be completed through the Mastering Astronomy software which will be accessed Blackboard. Course materials access has been set up through the Day One Access Program through the WKU bookstore. It is my understanding that students are automatically enrolled in the program so there is nothing to physically purchase, WKU automatically bills you. Instructions on accessing and registering for this course in Mastering Astronomy will be posted in Blackboard.

Exams (30%; 3 exams @ 10% each): There will be exams following the completion of units 1, 2, and 3. Timed exams will be given over blackboard. The nature of exams will be multiple

choice, short answer, fill in the blank, matching, etc. Exams will be open book/open note. No other resources are permitted.

Tentative Exam Dates are as follows:

Exam 1: Wednesday, Feb 17

Exam 2: Wednesday, March 17

Exam 3: Wednesday, April 14

Exams must be taken during the permitted time frame. This time frame will be announced in Blackboard. If you miss an exam without evidence of a documented emergency, you will not be permitted to make up the exam. If you have an emergency notify your instructor as soon as possible. (This means prior to exam, not days after)

Final Exam:

There will be a comprehensive final exam on Thursday, April 29 which will count for 20% of your grade.

Academic Honesty

All work is expected to be your own. Exams are to be completed with no assistance from other persons, nor assistance from online resources (this includes the use of online tutoring sources such as Chegg, and yes, we can check with Chegg for requests for solutions to exam problems). Any instance of collaboration on exams will result in a zero for the exam (with no makeup) and the incident will be reported to the office of student conduct. Repeated offense will result in a failing grade for the course without the option to withdraw.

Drop/Audit Policies

If you choose to not complete the course for a grade then your only option is to drop the course and receive a grade of W by the University deadline for dropping a course. If you choose to drop the course you must also drop the lab since they are co-requisites.

University Policies

Disability Accommodations

In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

Title IX Misconduct/Assault Statement

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at <https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf> and Discrimination and Harassment Policy (#0.2040) at https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf. Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121. Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

University COVID related policies: (Mask policy applies during our class if you are in a public area on campus during our Zoom sessions or any other area that require face coverings)

Out of respect for the health and safety of the WKU community and in adherence with the CDC guidelines, the University requires that a cloth face covering (reusable or disposable) that covers both the nose and mouth must be worn at all times when in public areas within all buildings. Students must properly wear face coverings while in class regardless of the room size or the nature of the classroom activities. Students who fail to wear a face covering as required will be in violation of the WKU Student Code of Conduct and will be asked to comply or will face disciplinary action, including possible dismissal from the University. Accommodations to face coverings must be determined by the Student Accessibility Resource Center and documented before a student may attend class.