

AST1002 DISCOVER THE UNIVERSE

3 CREDIT HOURS, FALL 2024, SECTIONS

INSTRUCTOR: Naibi Mariñas

Office number: *Bryant Space Science Center 224*

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COURSE TA'S: to be announced.

COURSE WEBSITE: <https://ufl.instructure.com/>

OFFICE HOURS: The instructors and TAs will use Zoom Conferences to conduct office hours. The Office Hours will be listed in the class website the first week of classes. Zoom conferences can also be scheduled by appointment.

COURSE COMMUNICATIONS: For any class-related logistic or content questions, students should use the **Course Questions** discussion board. This will benefit all students that might have similar questions and avoid repetitive questions. We will regularly answer all questions posted in the board. **If a student has a private question, the student should contact the teaching assistants or instructor using the Inbox in Canvas instead.**

Students can expect a reply from within 24 hours during weekdays in the Course Questions discussion board, unless the question is posted during the two final weeks of classes. If a post is made on Friday afternoon or during the weekend, it will not be answered until we check the discussion on the following Monday. Since many assignments in this class are due on Sundays, I recommend working on them early and asking any questions before noon on Fridays. We will not be working on the class on weekends.

Announcements in the class website will be used to communicate with the whole class. Students should frequently check the Announcement page. The class settings in Canvas can be adjusted so that announcements are sent directly to emails. I recommend each student to check their settings to make sure that option is marked.

REQUIRED MATERIALS: This class is enrolled in **UF All Access** to facilitate access to all course materials from the first week of class. The cost of the class materials is a lot less

using the UF All Access choice than buying the materials outside UF All Access. **If students opt out of UF All Access, they are still responsible for having all course materials the first week of class.** Not receiving the course materials during the first week of classes will not be considered as a valid excuse for missing assignments early in the semester.

The required textbook for the class is **The Essential Cosmic Perspective** by Bennett, Donahue, Schneider, and Voit, **9th Edition** and Mastering Astronomy Access code, Publisher: Pearson/Addison-Wesley, San Francisco. *(Make sure the book has the word **Essential** in the title; there is a more advanced copy of the book with a very similar title by the same author!)*

COURSE DESCRIPTION: This course provides a comprehensive look at modern astronomy, emphasizing the use of the scientific method and the application of physical laws to understand the Universe including Earth and its environment. Throughout this course, students will develop the ability to discern scientific knowledge from non-scientific claims by using critical thinking. (P)

The topics we will cover include:

- Observing the sky
- Tools of Astronomy
- Our solar system
- The nature and lives of stars
- The search for extraterrestrial life
- The nature of our Milky Way Galaxy
- Properties of other galaxies
- The origin and fate of the Universe

GENERAL EDUCATION: AST 1002, Discover the Universe, meets the requirements for a General Education physical science (P) course. Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will formulate empirically-testable hypotheses derived from the study of physical processes, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments. A minimum grade of "C" is required for general education credit.

PREREQUISITE KNOWLEDGE AND SKILLS: Although this is essentially a non-mathematical science course, a very basic knowledge of mathematics is required. Middle School arithmetic and pre-algebra is sufficient.

COURSE AND GEN ED STUDENT LEARNING OBJECTIVES AND OUTCOMES:

1. To provide students with a broad overview of modern astronomy. Students will be able to:
 - define terms used to measure and describe the universe
 - explain the processes involved in the formation and evolution of celestial objects over astronomical time according to different models and theories
2. To review the major scientific developments in astronomy and summarize their impacts on society and our environment. Students will be able to:
 - describe how scientific theories evolve in response to new observations and critically evaluate their impact on society
3. To teach the scientific method, improve scientific literacy, and help students learn to communicate scientific ideas clearly and effectively using written or graphic forms. Students will be able to:
 - formulate empirically-testable hypotheses derived from the study of physical processes and phenomena
 - gather and analyze astronomical data and communicate results in graphic and written forms
4. To develop the ability to distinguish science from non-science
 - apply logical reasoning skills through scientific criticism and argument to separate science from non-science

COURSE POLICIES:

This is a one term online course. Each week students will be required to complete a set of assignments. All assignments are listed in the course schedule by week; specific due dates can be found in the Course Calendar. As this is an online course, students must plan to have regular Internet access and time to explore the resources available on the various ideas and topics that we will be covering.

REQUIREMENTS: Students are expected to:

- Complete all Modules in a timely fashion. Each module includes an introductory video, reading assignments, tutorials, and additional videos that help students understand the material better. Assignments will begin on the first week of

classes. If you do not login to the class website and work on the content weekly, the assignments will be late.

- Complete three short projects spaced out during the term. Some projects require multiple days of work, so make sure to read over the assignment early.
- Check the **course announcements** and class e-mail at least three times a week.

COURSE TECHNOLOGY: Access to and on-going use of a computer is required for all students. Competency in the basic use of a computer is required. Course work will require use of a computer and a broadband connection to the Internet. In addition, students are required to have speakers and a webcam to take the proctored exams using Honorlock. For additional information on UF College of Liberal Arts and Sciences policy regarding computer requirements you can visit:

<http://it.clas.ufl.edu/policies/student-computer-requirement/>

COURSE EVALUATION BY STUDENTS: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

GRADING POLICIES:

See <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx> for general UF grading policies. Grades for the course will be based on the following:

Assignment	Points or percentage
Playpossit Quizzes	10 %
Reading Quizzes (MyLab)	10 %
Simulations	10 %
Discussions (5 Total)	20 %

Projects (3 projects)	15 %
Exams (4 exams)	35 %

GRADING SCALE:

Grade	% Points	GPA	Grade	% Points	GPA	Grade	% Points	GPA
A	> 90	4.0	B-	77 – 79	2.67	D+	64 – 66	1.33
A-	87 – 89	3.67	C+	74 – 76	2.33	D	60 – 63	1.0
B+	84 – 86	3.33	C	70 – 73	2.0	D-	57 – 59	0.67
B	80 – 83	3.0	C-	67 – 69	1.67	F	< 56	0

VIDEO QUIZZES, MYLAB ASSIGNMENTS AND SIMULATIONS (30 %): A major responsibility for this class will be to watch the introductory videos, complete the reading assignments, and work on the activities assigned in each module.

All introduction videos use PlayPosit quizzes to let you interact with the recorded material and test your understanding of the content.

Reading quizzes to help you keep up with the reading and gauge your reading comprehension will be on MyLab and Mastering which is linked to our Canvas website.

In some modules, you will also have simulations to help you visualized and understand complex topics.

DISCUSSIONS (20 %): Online discussion based on articles and videos will be used to further explore the topics we study. We'll go beyond what the text has to say, and look at new perspectives on the stopics and how they relate to other disciplines or areas of our lives. All discussions use Perussall. There are five discussions spread out throughout the term. [L]
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PROJECTS (15 %): One of the most enjoyable aspects of science is doing research and making discoveries. You will be completing three short projects during the class. You should read the assignment early on the module that they are assigned and estimate the time needed to complete the assignment. Projects can take more than one week to

complete. If you are having problems while working on the projects during the first week, contact the instructor or class TA for help.

EXAMS (35 %): Four exams will be assigned during the semester, three regular exams and a cumulative final. The lowest exam grade will be dropped at the end of the term, so that only 3 exams will be included in the class grade.

All exams will be proctored using Honorlock. Read the Honorlock section on Orientation page in the class website for more information.

LATE ASSIGNMENT POLICY: Students may submit assignments after the stated deadlines. A 10% grade penalty is assessed for work up to twenty-four hours late; an additional 10% is assessed for each additional day the work is late.

MAKE UP POLICY: Late submissions without penalty or make up assignments will only be accepted with a valid excuse from the Deans of Students Office. Students will be permitted a reasonable amount of time to make up the material or activities covered during excused absences.

In the case of exams, one exam grade is dropped to accommodate any issues students may have while taking the exams. **If a student misses one exam for any reason, there will be no make-up**, and the drop will be applied to that exam. If a student misses two exams, he/she will need to provide written documentation from the Dean of Students Office excusing the student from academic activity during the time the exam was available for scheduling. The documentation needs to be provided as soon as possible. If the student was excused for two or more exams, one of the exams will be dropped, and the student will be allowed to do make-up exams for the other exams.

UF POLICIES:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive; therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT: Academic honesty and integrity are fundamental values of the University community. Students should be sure that they

understand the UF Student Honor Code at <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>

This is an excerpt from the Academic Honesty Guidelines and Student Conduct Code in the University of Florida Undergraduate Catalog:

“Academic Honesty: The university requires all members of its community to be honest in all endeavors. A fundamental principle is that the whole process of learning and pursuit of knowledge are diminished by cheating, plagiarism, and other acts of academic dishonesty. In addition, every dishonest act in the academic environment affects other students adversely, from the skewing of the grading curve to giving unfair advantage for honors or for professional or graduate school admission. Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff, and administrators who practice dishonest or demeaning behavior.”

Cheating is not tolerated in this class. Everyone in this class is expected to follow the University of Florida Honor Code: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity. Any student suspected of academic misconduct will be automatically referred to the Honor Code Chancellor as required by UF.

On all work submitted for credit by students at the university, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

NETIQUETTE: COMMUNICATION COURTESY: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. <http://sfrc.ufl.edu/courses/distance/NetiquetteGuideforOnlineCourses.pdf>

ATTENDANCE POLICY: Requirements for class attendance is consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

UF ONLINE HANDBOOK: Additional information can be found on <http://handbook.uonline.ufl.edu/>

PRIVACY AND ACCESSIBILITY POLICY:

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded,

be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

INFRASTRUCTURE (CANVAS)

- [Privacy Policy](#) Links to an external site.
- [Accessibility](#) Links to an external site.

ZOOM

- [Privacy Policy](#) (Links to an external site.)
- [Accessibility](#) (Links to an external site.)

YOUTUBE (GOOGLE)

- [Privacy Policy](#) (Links to an external site.)
- <https://about.google/belonging/disability-inclusion/product-accessibility/> (scroll all the way down for YouTube accessibility information)

HONORLOCK

- [Privacy Policy](#) (Links to an external site.)
- [Accessibility](#)

GETTING HELP:

For issues with technical difficulties for E-learning, **do NOT contact the instructor**, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://elearning.ufl.edu/keep-learning/>

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. Students MUST contact the instructor within 24 hours of the technical difficulty to request a make-up.

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should students have any complaints with their experience in this course they should visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.