AST1002: Discover the Universe

3 CREDIT HOURS, SPRING 2025, SECTIONS 034A, 0387, 038G, 039A

INSTRUCTOR: Naibi Mariñas

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E-mail address: *Use Canvas Inbox. For DRC documentation use marinas@ufl.edu*

COURSE TA: To be announced

TAs e-mail address: *Use Canvas Inbox.*

COURSE WEBSITE: https://ufl.instructure.com/courses/512435

OFFICE HOURS: The instructors and TAs will use Zoom Conferences to conduct office hours. Office hours will be announced the first week of class.

COURSE COMMUNICATIONS: For any class-related logistic or content questions, students should use the **Course Questions Forum**. 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.**

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.

This is a large enrollment online course. Questions sent by email can take longer depending on the number of questions we receive.

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 excused 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 asynchronous 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 by a faculty member of the astronomy department, 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:

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 %

See UF Grades and Grading Policies for more information.

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. You will be able to rewatch the videos, but there is only one attempt for the PlayPosit quizzes.

Reading quizzes to help you keep up with the reading and gauge your reading comprehension will be on MyLab and Mastering under Pearson Access. You will need to access Pearson through 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.

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.

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

The lowest exam grade will be dropped.

LATE ASSIGMENT 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.

ATTENDANCE AND MAKE UP POLICY: Requirements for class attendance and make-up exams, assignments, and other work in the course are consistent with university policies. Since this is an asynchronous online course, students are expected to work weekly on the class website. *See UF Academic Regulations and Policies for more information regarding the University Attendance Policies.*

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.

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/). See the *"Get Started With the DRC" webpage on the Disability Resource Center site.* 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: UF students are bound by The Honor Pledge which states "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. See the UF Conduct Code website for more information. This includes the use of AI: except where explicitly instructed, no student is allowed to use any AI tools (e.g., including Grammarly) to assist with any assignments in this course. Doing so will be considered a violation of the student honor code. If you have any questions or concerns, please consult with the instructor or TAs in this class.

NETIQUETTE: COMMUNICATION COURTESY: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. See Netiquette Guide for Online Courses for more information.

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

PRIVACY AND ACCESSIBILITY POLICY:

INFRASTRUCTURE (CANVAS)

- Privacy Policy.
- Accessibility.

ZOOM

- Privacy Policy.
- Accessibility.

YOUTUBE (GOOGLE)

- Privacy Policy.
- Accessibility (scroll all the way down for YouTube accessibility information).

HONORLOCK

- Privacy Policy.
- Accessibility

GETTING HELP:

- Health and Wellness

  U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.

  Counseling and Wellness Center: Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website.

University Police Department: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.

GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the GatorWell website or call 352-273- 4450.

- Academic Resources

  E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

  Career Connections Center: Reitz Union Suite 1300, 352-392- 1601. Career assistance and counseling services.

  Library Support: Various ways to receive assistance with respect to using the libraries or finding resources. Call 866-281-6309 or email ask@ufl.libanswers.com for more information.

  Teaching Center: 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

  Writing Studio: Daytime (9:30am-3:30pm): 2215 Turlington Hall, 352-846-1138 | Evening (5:00pm-7:00pm): 1545 W University Avenue (Library West, Rm. 339). Help brainstorming, formatting, and writing papers.

  Academic Complaints: Office of the Ombuds; Visit the Complaint Portal webpage for more information.

  Enrollment Management Complaints (Registrar, Financial Aid, Admissions): View the Student Complaint Procedure webpage for more information.