

AST 103: First-Year Seminar in Astronomy & Planetary Science



College of the
Environment, Forestry,
and Natural Sciences

College of the Environment, Forestry, and Natural Sciences

Department of Astronomy and Planetary Science

Semester: Fall 2021

Prerequisites: None

Location: Health & Learning Center, Rm. 3101

Meeting Time & Format: Wednesdays from 4:30pm - 5:20pm; Lectures, 1 Credit, Pass/Fail

Instructor: Dr. Mark Salvatore, mark.salvatore@nau.edu, (928) 523-0324

Office Locations: Bldg. 19, Rm. 225A

Office Hours: Virtual: Tuesdays 2:00pm - 4:00pm, Thursdays 9:00am - 11:00am, or by appointment

You *must* schedule a 15-minute appointment beforehand! Click [here](#).

Need more than 15 minutes for an office hour session? **Book two+ consecutive time slots!**

Zoom Meeting ID: **850 6678 7221** | Zoom Password: *salvatore*

In-Person: Available upon request, please email mark.salvatore@nau.edu

Course Purpose

This course is designed to welcome students into Northern Arizona University and the Department of Astronomy and Planetary Science (APS). The course covers a wide range of topics, including general advice to help students succeed at NAU, to discussions regarding mental health issues, harassment, and diversity and inclusion, to the different research, courses, and degree programs offered through APS. Most importantly, the course provides an opportunity for students to interact and engage with each other over topics relevant to their interests. Lastly, the course is graded as Pass/Fail to ensure that students are more focused on learning from the content and discussions rather than worry too much about their specific grade.

Course Description

This first-year seminar is divided into five parts: (1) *Willkommen!*, (2) Our Place In Space, (3) Academic Success, (4) Thinking Ahead, and (5) Bon Voyage! In each part, students are evaluated based on responses to written prompts, performance on homework assignments, and maturity and engagement demonstrated during class participation activities. Most importantly, each of the five parts of class emphasize different skills and techniques that will help the student in their future pursuits, whether in academia or in other career paths.

Course Objectives & Learning Outcomes

This course has several objectives and learning outcomes that will be addressed throughout the semester through both active and passive learning modes. Students will be assessed primarily on participation in class discussions, activities, and departmental events. By the end of the semester, students will be able to:

1. Gain an appreciation for our place in space and the importance of space exploration;
2. Develop important techniques for succeeding in college and setting yourself up for future success;
3. Become familiar with the people, courses, and resources available in the Department of Astronomy and Planetary Science; and
4. Learn about the different resources available to students at NAU.

Assessment

Course assessment will consist of in-class activities (50%), homework assignments (17%), and student professionalism and engagement (33%). In-class activities and homework assignments will consist of short responses to discussion prompts, critical evaluations of literature, notes regarding reading assignments, and other similar contributions. A grading rubric for in-class and homework assignments is provided at the end of this syllabus.

Professionalism and engagement in class are critical parts of the learning experience. Unless otherwise noted, students are encouraged to work collaboratively both inside and outside of class. As a baseline, a student's professionalism and engagement grade will represent their average performance on in-class exercises and homework assignments. Points can be deducted for habitual lateness, class interruptions, lack of effort, or academic misconduct. Oppositely, points can be added for engaging in discussions, attending office hours, and assisting fellow classmates, to name a few.

Grading System: The breakdown of points is as follows, and any changes to the class scoring rubric will be discussed with the class prior to implementation:

<i>In-Class Exercises</i>	<i>75 points (50%)</i>
<i>Homework Assignments</i>	<i>25 points (17%)</i>
<i>Professionalism & Engagement</i>	<i>50 points (33%)</i>
Total	150 points

Your course grade will be based on the total points earned, and a letter grade will be assigned using the grading scale below:

Pass: ≥ 90 points ($\geq 60\%$) | **Fail:** < 90 points ($< 60\%$)

Required Materials & Technology

REQUIRED: No required course materials. Weekly reading materials will be provided to students via the course site on BBLearn.

Class, Departmental, & University Policies

- Because Prof. Salvatore has a young unvaccinated child at home, he will be wearing a face mask in class and recommends that all students do the same if at all possible.
- Please disclose any disabilities or special requirements to the NAU Disabilities Resources Office, who will contact me privately regarding any accommodations. I want to make sure that every student has an equal opportunity to learn and succeed.
- Don't cheat. You're paying good money to learn, and if you don't appreciate the knowledge gained right now, you will in the future. *If you feel like you need to cheat in order to succeed in this class, come talk to the professor to establish a more sustainable plan for succeeding.* If we catch you cheating, we have a zero-tolerance policy, will fail you in the class, and will report you to the Dean's Office.
- While attendance in class is not mandatory, remember that ~33% of your grade is dedicated to Professionalism & Engagement, which is directly reliant upon your attendance and participation.
- Please come to class on time. Students who arrive late and miss assignments will not be given extra time. In-class points missed due to tardiness cannot be made up.
- Please silence all cellular devices during class. Please refrain from any other "electronic distractions" (e.g., text messaging, browsing social media) during class. If you are anticipating cellular disruptions during class for any personal or professional reasons, please notify the professor prior to class.
- Class disruptions are defined as activities that distract the instructor or other students from delivering or learning the course materials. Such activities include talking or whispering during class, habitual tardiness or leaving class early, or "electronic distractions." Disruptive students will be asked to leave the classroom, while repeat offenders may be withdrawn from the class.
- Neither audio nor video recording will be permitted except under special circumstances prescribed by the NAU Disability Resources Office or discussed with the professor prior to class.
- **Additional departmental and university policies can be found at www.physics.nau.edu/SYLLABI/POLICY/policy.html.** This course falls under all departmental and university policies unless otherwise stated in this document.

Course Schedule

Week/Date		Class	Additional Information
1	Aug. 25	[Part 1: Willkommen!] Course Introduction	Content: Icebreakers, syllabus overview, group assignments Readings: <i>None</i> Homework Due: <i>None</i>
2	Sept. 01	[Part 1: Willkommen!] <i>How To Succeed In College [Hint: By Really Trying]</i>	Content: Group discussions Readings: <i>Surviving College, How to Get the Most Out of College</i> Homework Due: <i>None</i>
3	Sept. 08	[Part 2: Our Place in Space] Is Space Exploration an <i>Obligation</i> ?	Content: In-class reading assignment, group/class discussion Readings: <i>None</i> Homework Due: <i>None</i>
4	Sept. 15	[Part 2: Our Place in Space] <i>Civilizations In Space?</i>	Content: Group activity/discussions Readings: <i>Encyclopaedia Galactica</i> Homework Due: <i>None</i>
5	Sept. 22	[Part 2: Our Place in Space] The Future of Space Exploration	Content: Group/Class discussions Readings: <i>Pew Research Poll</i> Homework Due: <i>None</i>
6	Sept. 29	Discussion: <i>Mental Health in Academia</i>	Content: Guest speaker Readings: <i>Mental Health Problems & Treatment Considerations</i> Homework Due: <i>None</i>
7	Oct. 06	[Part 3: Academic Success] AST Department, Course/Degree Description	Content: Group activity/discussions Readings: <i>Department Website</i> Homework Due: <i>Website strengths, weaknesses, suggestions</i>
8	Oct. 13	[Part 3: Academic Success] Undergrad Research Opportunities and Highlights	Content: Panel discussion Readings: <i>APS faculty research emphases</i> Homework Due: <i>"Faculty profile"</i>
9	Oct. 20	[Part 3: Academic Success] Effective Reading & Studying Techniques	Content: Class activity/discussions Readings: <i>How to Read a Scientific Paper, McKay et al. (1996)</i> Homework Due: <i>Effective writing technique summary</i>
10	Oct. 27	[Part 3: Academic Success] Effective Writing & Visualization Techniques	Content: Group/Class discussion/activity Readings: <i>None</i> Homework Due: <i>None</i>
11	Nov. 03	Discussion: <i>Harassment and Your Rights as a Student</i>	Content: Guest speaker Readings: <i>None</i> Homework Due: <i>None</i>
12	Nov. 10	[Part 4: Thinking Ahead] Your Undergrad (& Graduate?) Experiences	Content: In-class activity and group discussions Readings: <i>None</i> Homework Due: <i>None</i>
13	Nov. 17	[Part 4: Thinking Ahead] Astronomy Careers: Academia, Government, and Industry	Content: Panel discussion Readings: <i>None</i> Homework Due: <i>None</i>
14	Nov. 24	Thanksgiving Recess - No Class	
15	Dec. 01	Discussion: <i>Diversity and Inclusivity</i>	Content: Guest speaker Readings: <i>APS Diversity and Inclusion Handbook</i> Homework Due: <i>None</i>
16	Dec. 08	[Part 5: Bon Voyage!] End of Semester #1, Getting Ready for Semester #2	Content: Group/Class discussion Readings: <i>None</i> Homework Due: <i>None</i>
Finals Week		No Final Exam	

Grading Rubric

The following rubric corresponds to all in-class exercises and homework assignments unless otherwise noted. Assignments will be graded with the following breakdown:

Category	Points	Description
<i>Correctly Following Instructions</i> (25%)	2/2	All elements of the instructions were followed. No superfluous information or answers were included in the response.
	1/2	Instructions were only partially followed, or superfluous information or answers were arbitrarily included in the response.
	0/2	Instructions were not followed.
<i>Reference to Supporting Information</i> (25%)	2/2	Provided answers are supported with references to assigned reading material and/or external sources.
	1/2	Provided references are either incomplete or not entirely appropriate.
	0/2	No references provided, or references are inappropriate for the provided answer.
<i>Effort and Thoughtfulness</i> (25%)	2/2	Provided answers and responses were clearly thought out and articulated.
	1/2	Answers demonstrate some (yet incomplete) effort and thought.
	0/2	Minimal effort demonstrated and/or answers lacked thoughtfulness.
<i>Correct Answers</i> (25%)	2/2	The correct answer is provided.
	1/2	Only a partially correct answer is provided.
	0/2	Incorrect answer provided, or no answer provided.

All of the above point and percentage breakdowns will simply be adjusted to match the defined question or assignment point value. For example, if a question is worth 10 points, each of the categories listed above will account for 2.5 points (25%). All of the above point breakdowns will simply be adjusted to match the point value in the appropriate breakdown.

COVID-19 Requirements and Information

*Additional information about the University's response to COVID-19 is available from the **Jacks are Back!** web page located at <https://nau.edu/jacks-are-back>.*

Syllabus Policy Statements

ACADEMIC INTEGRITY

NAU expects every student to firmly adhere to a strong ethical code of academic integrity in all their scholarly pursuits. The primary attributes of academic integrity are honesty, trustworthiness, fairness, and responsibility. As a student, you are expected to submit original work while giving proper credit to other people's ideas or contributions. Acting with academic integrity means completing your assignments independently while truthfully acknowledging all sources of information, or collaboration with others when appropriate. When you submit your work, you are implicitly declaring that the work is your own. Academic integrity is expected not only during formal coursework, but in all your relationships or interactions that are connected to the educational enterprise. All forms of academic deceit such as plagiarism, cheating, collusion, falsification or fabrication of results or records, permitting your work to be submitted by another, or inappropriately recycling your own work from one class to another, constitute academic misconduct that may result in serious disciplinary consequences. All students and faculty members are responsible for reporting suspected instances of academic misconduct. All students are encouraged to complete NAU's online academic integrity workshop available in the E-Learning Center and should review the full Academic Integrity policy available at <https://policy.nau.edu/policy/policy.aspx?num=100601>.

COURSE TIME COMMITMENT

Pursuant to Arizona Board of Regents guidance (ABOR Policy 2-224, Academic Credit), each unit of credit requires a minimum of 45 hours of work by students, including but not limited to, class time, preparation, homework, and studying. For example, for a 3-credit course a student should expect to work at least 8.5 hours each week in a 16-week session and a minimum of 33 hours per week for a 3-credit course in a 4-week session.

DISRUPTIVE BEHAVIOR

Membership in NAU's academic community entails a special obligation to maintain class environments that are conducive to learning, whether instruction is taking place in the classroom, a laboratory or clinical setting, during course-related fieldwork, or online. Students have the obligation to engage in the educational process in a manner that does not interfere with normal class activities or violate the rights of others. Instructors have the authority and responsibility to address disruptive behavior that interferes with student learning, which can include the involuntary withdrawal of a student from a course with a grade of "W". For additional information, see NAU's Disruptive Behavior in an Instructional Setting policy at <https://nau.edu/university-policy-library/disruptive-behavior>.

NONDISCRIMINATION AND ANTI-HARASSMENT

NAU prohibits discrimination and harassment based on sex, gender, gender identity, race, color, age, national origin, religion, sexual orientation, disability, or veteran status. Due to potentially unethical consequences, certain consensual amorous or sexual relationships between faculty and students are also prohibited as set forth in the Consensual Romantic and Sexual Relationships policy. The Equity and Access Office (EAO) responds to complaints regarding discrimination and harassment that fall under NAU's Nondiscrimination and Anti-Harassment policy. EAO also assists with religious accommodations. For additional information about nondiscrimination or anti-harassment or to file a complaint, contact EAO located in Old Main (building 10), Room 113, PO Box 4083, Flagstaff, AZ 86011, or by phone at 928-523-3312 (TTY: 928-523-1006), fax at 928-523-9977, email at equityandaccess@nau.edu, or visit the EAO website at <https://nau.edu/equity-and-access>.

TITLE IX

Title IX is the primary federal law that prohibits discrimination on the basis of sex or gender in educational programs or activities. Sex discrimination for this purpose includes sexual harassment, sexual assault or relationship violence, and stalking (including cyber-stalking). Title IX requires that universities appoint a "Title IX Coordinator" to monitor the institution's compliance with this important civil rights law. NAU's Title IX Coordinator is Elyce C. Morris. The Title IX Coordinator is available to meet with any student to discuss any Title IX issue or concern. You may contact the Title IX Coordinator by phone at 928-523-3515, by fax at 928-523-0640, or by email at elyce.morris@nau.edu. In furtherance of its Title IX obligations, NAU will promptly investigate and equitably resolve all reports of sex or gender-based discrimination, harassment, or sexual misconduct and will eliminate any hostile environment as defined by law. Additional important information about Title IX and related student resources, including how to request immediate help or confidential support following an act of sexual violence, is available at <https://in.nau.edu/title-ix>.

ACCESSIBILITY

Professional disability specialists are available at Disability Resources to facilitate a range of academic support services and accommodations for students with disabilities. If you have a documented disability, you can request assistance by contacting Disability Resources at 928-523-8773 (voice), 928-523-6906 (TTY), 928-523-8747 (fax), or dr@nau.edu (e-mail). Once eligibility has been determined, students register with Disability Resources every semester to activate their approved accommodations. Although a student may request an accommodation at any time, it is best to initiate the application process at least four weeks before a student wishes to receive an accommodation. Students may begin the accommodation process by submitting a self-identification form online at <https://nau.edu/disability-resources/student-eligibility-process> or by contacting Disability Resources. The Director of Disability Resources, Jamie Axelrod, serves as NAU's Americans with Disabilities Act Coordinator and Section 504 Compliance Officer. He can be reached at jamie.axelrod@nau.edu.

RESPONSIBLE CONDUCT OF RESEARCH

Students who engage in research at NAU must receive appropriate Responsible Conduct of Research (RCR) training. This instruction is designed to help ensure proper awareness and application of well-established professional norms and ethical principles related to the performance of all scientific research activities. More information regarding RCR training is available at <https://nau.edu/research/compliance/research-integrity>.

MISCONDUCT IN RESEARCH

As noted, NAU expects every student to firmly adhere to a strong code of academic integrity in all their scholarly pursuits. This includes avoiding fabrication, falsification, or plagiarism when conducting research or reporting research results. Engaging in research misconduct may result in serious disciplinary consequences. Students must also report any suspected or actual instances of research misconduct of which they become aware. Allegations of research misconduct should be reported to your instructor or the University's Research Integrity Officer, Dr. David Faguy, who can be reached at david.faguy@nau.edu or 928-523-6117. More information about misconduct in research is available at <https://nau.edu/university-policy-library/misconduct-in-research>.

SENSITIVE COURSE MATERIALS

University education aims to expand student understanding and awareness. Thus, it necessarily involves engagement with a wide range of information, ideas, and creative representations. In their college studies, students can expect to encounter and to critically appraise materials that may differ from and perhaps challenge familiar understandings, ideas, and beliefs. Students are encouraged to discuss these matters with faculty.