

GLY 2042: Planetary Geology – Fall 2022 – 3 credit hours

Mon., Wed., Fri. (3:00 – 3:50pm EST), Lecture held in **Williamson Hall, room 202**

Instructor: Dr. Stephen Elardo
Williamson Hall - 229
selardo@ufl.edu

Office hours:
Wednesdays, 1 – 3pm EST or by appointment

Course Website: <http://elearning.ufl.edu>

Course Materials: 1. An Introduction to the Solar System, edited by Rothery, McBride, and Gilmour, 3rd edition

Course Objectives

- 1) Apply knowledge of how the Solar System and its planetary bodies formed to observations of those bodies.
- 2) Identify key components of how and why other planetary bodies differ from Earth and what they can tell us about the Earth.
- 3) Demonstrate knowledge of the differences and connections between geological and planetary sciences.
- 4) Identify key moments in the exploration history of the Solar System and apply knowledge to identify the strengths and limitations of various types of planetary exploration missions.
- 5) Identify the main characteristics of planetary bodies and demonstrate knowledge of their formation

COVID-19

If you are experiencing COVID-19 symptoms ([Click here for guidance from the CDC on symptoms of coronavirus](#)), please use the UF Health screening system and follow the instructions on whether you are able to attend class.

- Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. [Find more information in the university attendance policies.](#)

Grading Scheme:	A = 93.0-100%	A- = 90.0-92.9%	
	B+ = 87.0-89.9%	B = 83.0-86.9%	B- = 80.0-82.9%
	C+ = 77.0-79.9%	C = 73.0-76.9%	C- = 70.0-72.9%
	D+ = 67.0-69.9%	D = 63.0-66.9%	D- = 60.0-62.9%
	E = below 60%		

	POINTS
MIDTERM	20%
FINAL EXAM – COMPREHENSIVE (DEC. 16TH 10AM – 12PM)	20%
HOMEWORKS AND QUIZZES	20%
LECTURE ATTENDANCE & PARTICIPATION	15%
FINAL PROJECT	25%

Lecture Attendance and Participation Rubric:

Daily Grade	Level of Participation
100%	In attendance. Engages fully in discussion with comments and/or questions.
70%	In attendance. Somewhat or not at all engaged, with few or no comments and questions.
0%	Not in attendance without excused absence.

Lecture Schedule: The tentative schedule for lecture topics, reading assignments, and exams is below and will also be posted separately on Canvas.

Homework and Canvas Quizzes: Throughout the semester, homework exercises and quizzes will be assigned through Canvas. These assignments should be completed and submitted through Canvas.

Late Work Policy: Work turned in late will be subject to a grade reduction of 20% per day.

Makeup Policy: If you have a preexisting conflict with one of the scheduled exams, an alternative meeting time must be arranged with Dr. Elardo made at least one week prior to the exam. In case of sudden illness or family emergency, please notify the instructor as soon as possible (within no more than 1 week). Appropriate documentation may be required. No make-ups will be permitted for other, unexcused absences.

Email: ALL email communications MUST be sent from (and will be sent to) your Gatorlink accounts, or be sent through the Canvas email tool. I will respond to email within 24 hours Monday through Friday. **Before sending Dr. Elardo a question via email please check the syllabus and class website for the answer to your question.** If you do not get a reply in a couple of days, please do not hesitate to resend your email. I will not check email during the evening before or morning of an examination.

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://gatorevals.aa.ufl.edu/>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://gatorevals.aa.ufl.edu/>.

Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

University Honesty Policy

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 Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor in this class.

University Policy on Accommodating Students with Disabilities: Students requesting accommodation for disabilities must first register with the Dean of Students Office ([is http://www.dso.ufl.edu/drc/](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 <http://www.dso.ufl.edu/students.php>.

Netiquette: Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. [Describe what is expected and what will occur as a result of improper behavior – <http://teach.ufl.edu/docs/NetiquetteGuideforOnlineCourses.pdf>

Campus Resources:

Health and Wellness

U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352-392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

Schedule of Topics

---Below schedule is tentative and may vary depending on lecture pace---

Week	Day	Date	Topic	Reading
1	W	Aug. 24	Course Introduction/Exploration of the Solar System	
	F	Aug. 26	Exploration of the Solar System	
2	M	Aug. 29	Stellar Evolution and Nucleosynthesis	289 - 323
	W	Aug. 31	Solar System Formation	3-31
	F	Sep. 2	Solar System Formation	3-31
3	M	Sep. 5	Labor Day – No Class	
	W	Sep. 7	Differentiation and Composition of the Planets I	33 - 84
	F	Sep. 9	Differentiation and Composition of the Planets II	
4	M	Sep. 12	Differentiation and Composition of the Planets III	
	W	Sep. 14	Asteroids and the Belt	251 - 269
	F	Sep. 16	Asteroid Belt – Meteorites	325 - 357
5	M	Sep. 19	Asteroid Belt – Meteorites	325 - 357
	W	Sep. 21	Asteroid Belt – Vesta and Ceres I	
	F	Sep. 23	Surface Processes – Volcanism	85 - 127
6	M	Sep. 26	Surface Processes – Volcanism	85 - 127
	W	Sep. 28	Planetary Atmospheres	163 - 205
	F	Sep. 30	Surface Processes – Cratering and Tectonics	129 -151
7	M	Oct. 3	Surface Processes – Cratering and Tectonics	129 -151
	W	Oct. 5	Surface Processes – Fluvial Transport and Space Weathering	155 - 161
	F	Oct. 7	Planetary Exploration Techniques	
8	M	Oct. 10	Mercury	
	W	Oct. 12	Mercury	
	F	Oct. 14	Midterm Exam	
9	M	Oct. 17	Venus	
	W	Oct. 19	Venus	
	F	Oct. 21	Exploration of the Moon	
10	M	Oct. 24	Lunar Geology	
	W	Oct. 26	No Class	
	F	Oct. 28	No Class	
11	M	Oct. 31	Lunar Geology	
	W	Nov. 2	Exploration of Mars	
	F	Nov. 4	Martian Geology	
12	M	Nov. 7	Martian Geology	
	W	Nov. 9	Exploration of the Outer Planets	207 - 248
	F	Nov. 11	Veteran's Day – No Class	
13	M	Nov. 14	Jupiter and Moons	
	W	Nov. 16	Jupiter and Moons	
	F	Nov. 18	Saturn and Moons	
14	M	Nov. 21	Uranus, Neptune, and Moons	
	W	Nov. 23	Thanksgiving Break – No Class	
	F	Nov. 25	Thanksgiving Break – No Class	
15	M	Nov. 28	Uranus, Neptune, and Moons	
	W	Nov. 30	Pluto, Moons, the Kuiper Belt, and the Oort Cloud	269 - 282
	F	Dec. 2	Exoplanets	
16	M	Dec. 5	Student Project Presentations	
	W	Dec. 7	Student Project Presentations	
	F	Dec. 9	Reading Day – No Class	

