GLY2042: Planetary Geology - Spring 2021 - 3 credit hours

Wed. periods 7 – 8 (1:55 – 3:50pm EST) and Fri. period 8 (3:00 – 3:50pm EST) In-person lecture held in **Williamson Hall, room 202**

Students are Required to Wear Face Coverings While in Williamson Hall and for the Duration of the In-Person Lecture Period. No Exceptions!

Instructor: Dr. Stephen Elardo Virtual Office hours:

Williamson Hall - 229 Fridays, 1-2pm EST or by appointment

selardo@ufl.edu (<u>933 844 3765</u>)

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

Lecture: https://ufl.zoom.us/j/96058814266?pwd=cDUyOFcvK0c0dGZGb3djTkEwczkydz09

Zoom Meeting ID: 960 5881 4266

Passcode: TheMoon

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

Course Objectives

- 1) Understand how the Solar System and its various planetary bodies formed.
- Understand how and why other planetary bodies differ from Earth and what they can tell us about the Earth
- 3) Understand the differences and connections between geological and planetary sciences
- 4) Understand the exploration history of the Solar System and the strengths and limitations of various types of planetary exploration missions.

Face to Face Lecture Section: We will have a face to face lecture section for this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- You are required to wear approved face coverings at all times during class and within buildings. Following
 and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a
 report to the Office of Student Conduct and Conflict Resolution.
- This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting
 down and at the end of the class.
- Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms (<u>Click here for guidance from the CDC on symptoms of coronavirus</u>), please use the UF Health screening system and follow the instructions on whether you are able to attend class. <u>Click here for UF Health guidance on what to do if you have been exposed to or are experiencing Covid-19 symptoms</u>.
 - 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. <u>Find more information in the university attendance</u>
 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- = 60.0-62.9% D- = 60.0-62.9%

F = below 60%

POINTS

	PUSSIBLE
MIDTERM	20%
FINAL EXAM - COMPREHENSIVE	20%
HOMEWORKS AND QUIZZES	20%
LECTURE ATTENDANCE & PARTICIPATION	15%
FINAL PROJECT	25%

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 try to respond to emails in a timely fashion; however, I get a lot of email traffic so it may take some time. Accordingly, 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/). 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

Week	Day	Date	Topic	Reading
1	W	Jan 13	Course Introduction/Exploration of the Solar System	
	F	Jan 15	Stellar Evolution and Nucleosynthesis	289 - 323
2	W	Jan 20	Solar System Formation	3-31
	F	Jan 22	Differentiation and Composition of the Planets I	33 - 84
3	W	Jan 27	Differentiation and Composition of the Planets II	
	F	Jan 29	Asteroids and the Belt	251 - 269
4	W	Feb 3	Asteroid Belt – Meteorites	325 - 357
	F	Feb 5	Asteroid Belt – Vesta and Ceres I	
5	W	Feb 10	Surface Processes – Volcanism	85 - 127
	F	Feb 12	Planetary Atmospheres	163 - 205
6	W	Feb 17	Surface Processes – Cratering and Tectonics	129 -151
	F	Feb 19	Surface Processes – Fluvial Transport and Space Weathering	155 - 161
7	W	Feb 24	Mercury	
	F	Feb 26	Midterm Exam	
8	W	Mar 3	Venus	
	F	Mar 5	Exploration of the Moon	
9	W	Mar 10	Lunar Geology	
	F	Mar 12	Exploration of Mars	
10	W	Mar 17	Lunar and Planetary Science Conference – No Class	
	F	Mar 19	Martian Geology	
11	W	Mar 24	UF Recharge Day – No Class	
	F	Mar 26	Exploration of the Outer Planets	207 - 248
12	W	Mar 31	Jupiter and Moons	
	F	Apr 2	Saturn and Moons	
13	W	Apr 7	Uranus, Neptune, and Moons	
	F	Apr 9	Pluto, Moons, the Kuiper Belt, and the Oort Cloud	269 - 282
14	W	Apr 14	Exoplanets	
	F	Apr 16	Student Project Presentations	
15	W	Apr 21	Student Project Presentations	
	F	Apr 23	Reading Day – No Class	

⁻⁻⁻Above schedule is tentative and may vary depending on lecture pace---