

GLY 3163 GEOLOGY OF AMERICAN NATIONAL PARKS

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General Information

CLASS LOCATION: WEB

MEETING TIMES: No scheduled meeting times.

INSTRUCTOR

Dr. David Foster Office: Williamson Hall 366 Phone: 352.392.2231 e-mail: For communication regarding this course, e-mail the instructor or TA(s) using the Canvas mail tool.

TEACHING ASSISTANTS

OFFICE HOURS

By appointment - please e-mail through the e-Learning website to schedule a virtual meeting with the instructor or the TA. We can also meet with you in the office if you are in Gainesville.

COURSE COMMUNICATIONS

Please post general course questions on the **Have a Questions Discussion Board.** Personal questions should be sent to me via email through e-Learning. The instructor or TA will respond to student inquiries within 24 hours on workdays and within 48 hours on weekends.

COMMUNICATION COURTESY (NETIQUETTE): All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions, and chats.

- Specify a subject for each message
- Be brief, but be sure you have covered the assigned topic
- Think before you send e-mail to more than one person
- Be careful with humor and sarcasm
- Be careful with personal information
- Use proper grammar and punctuation

Text

Geology of National Parks, 8th edition, by D. Foster and D. Hacker. KendallHunt Publishing Company 2022

Course Description

Credits: 3.

This course is an introduction to the geological setting of selected US National Parks. It provides an overview of geological concepts using the Parks as examples and relates geology to the cultural aspects of these parks and environmental issues. (General Education P)

COURSE GOALS

TBA

This course provides an overview of the geology of select American National Parks and adjacent regions in the context of geodynamic and geomorphologic processes. The National Parks display dramatic landscapes and geological features in nearly every plate tectonic and climatic setting.

We will use the geology of the National Parks to better understand the materials the make up the Earth's crust and the integrated Earth systems involved in forming and modifying landscapes in the surface environment. The Earth systems include interactions between the dynamics of the solid Earth (lithosphere), surface water and groundwater (hydrosphere), climate and weather (atmosphere), and life forms (biosphere).

The geology of the National Parks will be related to cultural aspects and environmental issues. We will also study geological hazards including volcanic eruptions, earthquakes, and landslides that pertain to the various parks and adjacent regions.

OBJECTIVES

When you complete this course will be able to identify geologic features of the American National Parks, explain the plate tectonic forces and surface processes that combine to create unique landscapes, analyze data to develop hypotheses about the development of geological elements and predict future conditions in areas within and around the Parks, and evaluate the role of humans in preserving, utilizing, and modifying the geology of the Parks. This course will cover the following parks:

- Grand Canyon National Park
- Zion National Park
- Bryce Canyon National Park
- Arches National Park
- Canyonlands National Park
- Death Valley National Park
- Grand Teton National Park
- Mount Rainier National Park
- Olympic National Park
- Mount Saint Helens
- Crater Lake National Park

- Yosemite National Park
- Yellowstone National Park
- Great Smokey Mountain National Park
- Acadia National Park
- Shenandoah National Park
- Glacier National Park
- Rocky Mountain National Park
- Denali National Park
- Glacier Bay National Park

General Education Learning Outcomes

This is a General Education Physical Sciences (P) course that provides student learning outcomes as listed below (General Education subject area objectives may be found at https://undergrad.aa.ufl.edu/general-education/gen-ed-program/subject-area-objectives/):

CONTENT

- Know the basic concepts, theories and terminology of natural science and the scientific method within that discipline.
- Know the major scientific developments within that discipline and the impacts on society and the environment.
- Know relevant processes that govern biological and physical systems within that discipline.

CRITICAL THINKING

- Formulate empirically testable hypotheses derived from the study of physical processes and living things within that discipline.
- Apply logical reasoning skills effectively through scientific criticism and argument within that discipline.
- Apply techniques of discovery and critical thinking effectively to solve experiments and to evaluate outcomes.

COMMUNICATION

- Communicate scientific findings clearly and effectively using oral, written and/or graphic forms.
- Write effectively using several types of writing, such as research papers and laboratory reports.

Instructional Methods

This course is completely online. The course material will be delivered to you through your textbooks, and this e-Learning in Canvas course site. You will play an active role in learning the material through:

- Reading the assigned textbook material
- View the video lectures

- Quizzes
- Discussion
- Essay exams

Course Policies

ATTENDANCE POLICY:

Students are expected to participate in all course activities and assignments. Complete all modules in the order they are presented on the course website; do not skip modules. Deadlines are outlined in the course schedule.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

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

QUIZZES

Quizzes are due at 11:55 on the date listed.

Late quizzes will not be accepted.

MAKE-UP POLICY

Late work will not be accepted in this course. In the event of illness or emergency, you must provide documentation and contact the Dean of Students office http://www.dso.ufl.edu/.

Should you have technology issues, you MUST contact the Help Desk immediately at <u>http://helpdesk.ufl.edu</u> or 352-392-HELP – select option 2. Any requests due to technical difficulties must be accompanied by the Help Desk ticket number and be submitted within 24 hours of the incident.

COURSE TECHNOLOGY:

Students are expected to have access to a reliable computer with a broadband Internet connection.

You will need to use the following tools in this course:

- Updated Browser see: <u>https://lss.at.ufl.edu/help/Student_Faq</u> for recommended browsers
- Wired connection for taking quizzes, exams and viewing videos

ONLINE COURSE EVALUTION

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/.

UF Policies

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting

https://disability.ufl.edu/students/get-started/ . It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

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. *Violations of the Student Honor Code will not be tolerated and will be reported to the Dean of Students office*. It is, therefore, expected that all work submitted for assignments is original and cited correctly. **Plagiarism will result in a failing grade**.

RECORDING OF LECTURES

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal education use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor. Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who published a recording without the written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Getting Help

For issues with technical difficulties for e-Learning, please contact the UF Help Desk at:

- <u>Learning-support@ufl.edu</u>
- (352) 392-HELP select option 2
- https://lss.at.ufl.edu/help.shtml

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. **Late work will not be accepted in this course.**

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

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

Grading

ASSESSMENT

- Two essay exams (200 points total)
- Chapter and topic quizzes (450 points total)
- Participation in discussion assignments (360 points total)
- Mid-term self-evaluation quiz (extra credit 20 points)
- Syllabus Quiz (extra credit 30 points)
- Final grade based on the total of 100% (1010 points)

FINAL GRADE POINT BREAKDOWN

Grading guidelines for individual assignments can be found in the course modules. A minimum grade of C is required for general education credit. Final grading is based upon the percentage breakdown below:

93 – 100	А	73 – 76	С
90 – 92	A-	70 – 72	C-
87 – 89	B+	67 - 69	D+
83 – 86	В	63 - 66	D
80 - 82	B-	60 - 62	D-
77 – 79	C+	Below 59	E

UF grading policies for assigning grade points may be found at:

https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

Disclaimer

This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

Course Schedule by Module

Week 1	Module 00	Course Overview
Week 1-2	Module 01	Earth Materials and Earth Processes
Week 2-4	Module 02	National Parks of the Colorado Plateau-1
	Module 03	National Parks of the Colorado Plateau-2
Week 4-5	Module 04	National Parks of the Basin and Range
Week 6-7	Module 05	National Parks/Active Continental Margin
Week 7-8	Module 06	National Parks of the Sierra Nevada
Week 9-10	Module 07	Yellowstone National Park
Week 11-12	Module 08	National Parks of the Appalachians
Week 13-14	Module 09	National Parks of the Rocky Mountains
Week 14-15	Module 10	National Parks of Alaskan Accreted Terranes