



# GEOG103: PHYSICAL GEOGRAPHY

## Spring 2024 – **Schulich Lecture Hall (SLH) #1**

### Course Information

#### Instructor Information

**Instructor:** Dr. Julie Loisel, Associate Professor  
**Office:** Mackay Science, room 205  
**Email:** jloisel@unr.edu  
**Office Hours:** Wednesdays 09:00 - 10:00am (or by appointment)

#### Course Description and Goal

*Physical elements of the earth, its natural features, and their significance to humanity. Study of the atmosphere, biosphere, lithosphere, and hydrosphere. Four laboratory experiences required.*

*The goal of this course is to provide each student with a well-rounded understanding of planet Earth. All of Earth’s geosystems, from the solid Earth to the atmosphere, the hydrosphere and the biosphere, are examined through case studies such as hotspot volcanism, hurricane formation, glacial landscape evolution, and carbon-climate feedbacks. Short lectures, interviews, videos, texts, and exercises will also allow students to explore and investigate the complex interactions between these systems as well as how they affect, and are affected by, humans.*

#### Course Pre/Co-requisites

*Pre-requisite(s): completion of Core Curriculum Mathematics Requirement or SAT of 610 or revised SAT of 630 or ACT 27. Corequisite(s): MATH 120 or MATH 126 or MATH 127 or MATH 128 or MATH 176 or MATH 181.*

#### Required Texts/Course Materials

**Required:** Reynolds S. et al. *Exploring Physical Geography*. 2nd edition. McGraw-Hill

*We will be using the electronic version of this text (with SmartBook technology). You should already have access to this book through WebCampus. Look for the McGraw-Hill Connect link.*

*There will often be a required reading assignment due prior to the beginning of class. At times, those readings may also come from outside sources (free of charge to the students and provided through WebCampus).*

#### Class Procedures/Structures

*This class structure primarily relies on sets of short lectures interspersed with in-class activities that will be completed individually or in small groups (some of those activities will count towards the student grades while others won’t be graded). There will also be four labs (all graded); those labs will be held in different locations on campus and on days and times that may differ from our usual class (see lab schedule below).*



The course is split into 5 themes (every ~3 weeks) and each theme is split into many topics/lectures (see the course calendar below). All teaching materials (lectures, videos, texts, powerpoints slides, exercises, lab instructions) will be displayed on WebCampus.

## Student Learning Outcomes

Learning outcomes pertaining to **Critical Thinking Skills**: (1) apply and understand the fundamental concepts of Earth system science and Geography; (2) explain and rationalize how to find, and assess, scientifically credible information; (3) demonstrate the appropriate use of the scientific method (repeatable observations, testable hypotheses, multiple analytical tools, and data interpretation) to explore, describe, and learn about Earth’s geosystems, (4) interpret the arrangement and evolution of climates, ecosystems, and landforms over Earth’s surface; (5) predict the patterns that emerge from the interplay of multiple Earth system processes, and (6) explain the manner that Earth’s rocks and other materials provide records of our planet’s history, and how the principle of uniformitarianism (“the present is the key to the past”) allows Earth scientists to reconstruct past landscapes and environments. In terms of **Communication Skills**, students will (7) describe geographic patterns through maps and graphs, and (8) communicate about Earth in a meaningful way, both in written (essays and short-answer questions) and oral forms (mini presentations). Students will develop **Empirical and Quantitative Skills** via (9) analyzing several types of geologic, climate, and biogeographic datasets using Excel and other online software. Lastly, **Teamwork skills** will be gained through some of the in-class group and lab activities.

## Course Requirements

The following activities will be graded:

2 exams (15%, 25%)	exams	= 40% of total
4 labs (6% each)	labs	= 24% of total
15 in-class activities (1-2% each)	others	= 21% of total
10 required readings with short reports (2% each)	readings	=20% of total
		<b>=105%</b>

Students can score up to 105 points; this procedure is meant to provide students with the opportunity to improve their final grade by up to half of a letter grade.

**Feedback:** Students can expect feedback and grades on assignments and exams within about one week of the submission deadline of those said assignments and exams.

**Attendance:** The instructor views class attendance and participation as an individual student responsibility. Students are expected to attend class and to complete all assignments.

## Grading Criteria, Scale, and Standards

**Grading:** Exam and course grades are not negotiable. Your grade reflects your performance in this course. The grading scale is as follows:

A = Excellent	90-100%	D = Passing	60-69%
B = Good	80-89%	F = Failing	00-59%
C = Satisfactory	70-79%		



## Late Work or Make-up Exams Policies

**Late assignments** will be penalized at a rate of 10% per business day.

Work submitted by a student as makeup work for an excused absence is not considered late work and is exempted from the late work policy. For more information on what constitutes an excuse absence, refer to the [University’s Class Absence policy](#).

In the case of exams and lab activities, students seeking an excused absence must notify the instructor in writing at least three days ahead of time. In cases where advance notification is not feasible, the student must provide notification as soon as possible, and by the end of the second working day after the absence at the latest. In other words: if you must miss class due to illness, please contact the instructor immediately to make arrangements for any missed work or lecture materials. At the instructor’s discretion, the make-up exam or lab might be in a different format than the original one.

## Course Calendar or Topics Outline

The list of topics and dates listed below are subject to change.

<b>THEME 1 –ROCKS (01/22-02/09)</b>	
Week 1	Intro & Earth Formation /// Geologic Timescale & Stratigraphic Principles
Week 2	Plate tectonics & Seafloor Spreading /// Volcanoes, Earthquakes, Tsunamis
Week 3	Lab 1 (see LAB SCHEDULE below)
<b>THEME 2 – CLIMATE (02/12-03/08)</b>	
Week 4	Earth’s Energy Budget /// Natural Climate Cycles
<b>***** THURSDAY 02/15: LAB 1 DUE (6%) *****</b>	
Week 5	Tectonic-scale climate change /// Orbital-scale climate change
Week 6	The Quaternary Period & the Holocene Epoch /// Reconstructing Past Environments
Week 7	Lab 2 (see LAB SCHEDULE below) /// <b>Exam 1 on THURSDAY</b>
<b>***** THURSDAY 03/07: EXAM 1 (15%) *****</b>	
<b>THEME 3 – AIR &amp; WATER (03/11-04/05)</b>	
Week 8	Global Atmospheric Circulation /// Global Ocean Circulation
<b>***** THURSDAY 03/14: LAB 2 DUE (6%) *****</b>	
Week 9	Hurricanes & Monsoons /// El Nino <u>Southern Oscillation</u> (ENSO)
Week 10	Lab 3 (see LAB SCHEDULE below)
<b>THEME 4 – LANDSCAPE EVOLUTION (04/08-04/19)</b>	
Week 11	Mass Movement, Erosion, Weathering /// Glacial Landforms & Processes
<b>***** THURSDAY 04/11: LAB 3 DUE (6%) *****</b>	
Week 12	Fluvial and Coastal Landforms & Processes /// Aeolian Landforms & Processes
<b>THEME 5 – ECOSYSTEMS (04/22-05/09)</b>	
Week 13	Lab 4 (see LAB SCHEDULE below) /// Soils
Week 14	Forests & Wildfires /// Lake Eutrophication & Ocean Acidification
<b>***** THURSDAY 04/25: LAB 4 DUE (6%) *****</b>	
Week 15	Revision day /// <b>Exam 2 on THURSDAY</b>
<b>***** THURSDAY 05/08: EXAM 2 (25%) *****</b>	



The LABORATORY SCHEDULE can be found below. Note that the time and date often differ from our normal class; the same goes for the meeting places, which will vary throughout the semester. Lastly, note that students are expected to come to their designated section because the course is full.

activity	section	date	time	room
LAB 1	1101	Feb 05 2024	11:00-12:50	MS 208
	1102	Feb 06 2024	12:30-2:20	MS 208
	1103	Feb 06 2024	5:30-7:20	MS 208
	1104	Feb 07 2024	3:30-5:20	MS 208
	1105	Feb 08 2024	11:00-12:50	MS 208
	1106	Feb 09 2024	10:00-11:50	MS 208
LAB 2	1101	Mar 04 2024	11:00-12:50	MS 208
	1102	Mar 05 2024	12:30-2:20	MS 208
	1103	Mar 05 2024	5:30-7:20	MS 208
	1104	Mar 06 2024	3:30-5:20	MS 208
	1105	Mar 07 2024	11:00-12:50	MS 208
	1106	Mar 08 2024	10:00-11:50	MS 208
LAB 3	1101-1102-1103	Apr 02 2024	9:00-10:15	SLH 1
	1104-1105-1106	Apr 04 2024	9:00-10:15	SLH 1
LAB 4	1101	Apr 22 2024	11:00-12:50	MS 208
	1102	Apr 23 2024	12:30-2:20	MS 208
	1103	Apr 23 2024	5:30-7:20	MS 208
	1104	Apr 24 2020	3:30-5:20	MS 208
	1105	Apr 25 2024	11:00-12:50	MS 208
	1106	Apr 26 2024	10:00-11:50	MS 208

## University Policies

### Statement on Academic Dishonesty

*The University Academic Standards Policy defines academic dishonesty, and mandates specific sanctions for violations. See the University Academic Standards policy: [UAM 6,502](#).*

### Statement on Student Compliance with University Policies

*In accordance with section 6,502 of the University Administrative Manual, a student may receive academic and disciplinary sanctions for failure to comply with policy, including this syllabus, for failure to comply with the directions of a University Official, for disruptive behavior in the classroom, or any other prohibited action. "Disruptive behavior" is defined in part as behavior, including but not limited to failure to follow course, laboratory or safety rules, or endangering the health of others. A student may be dropped from class at any time for misconduct or disruptive behavior in the classroom upon recommendation of the instructor and with approval of the college dean. A student may also receive disciplinary sanctions through the Office of Student Conduct for misconduct or disruptive behavior,*



*including endangering the health of others, in the classroom. The student shall not receive a refund for course fees or tuition.*

## Statement of Disability Services

*Use either the traditional or online statement, in addition to the last sentence regarding third party materials.*

### **For Traditional and Seated Classrooms:**

Any student with a disability needing academic adjustments or accommodations is requested to speak with me or the [Disability Resource Center](#) (Pennington Achievement Center Suite 230) as soon as possible to arrange for appropriate accommodations.

**This course may leverage 3<sup>rd</sup> party web/multimedia content, if you experience any issues accessing this content, please notify your instructor.**

## Statement on Audio and Video Recording

### **Student-created Recordings**

Surreptitious or covert video-taping of class or unauthorized audio recording of class is prohibited by law and by Board of Regents policy. This class may be videotaped, or audio recorded only with the written permission of the instructor. In order to accommodate students with disabilities, some students may have been given permission to record class lectures and discussions. Therefore, students should understand that their comments during class may be recorded.

### **Instructor-created Recordings**

Class sessions may be audio-visually recorded for students in the class to review and for enrolled students who are unable to attend live to view. Students who participate with their camera on or who use a profile image are consenting to have their video or image recorded. If you do not consent to have your profile or video image recorded, keep your camera off and do not use a profile image. Students who un-mute during class and participate orally are consenting to have their voices recorded. If you do not consent to have your voice recorded during class, keep your mute button activated and only communicate by using the "chat" feature, which allows you to type questions and comments live.

## Statement on Maintaining a Safe Learning and Work Environment

*The University of Nevada, Reno is committed to providing a safe learning and work environment for all. If you believe you have experienced discrimination, sexual harassment, sexual assault, domestic/dating violence, or stalking, whether on or off campus, or need information related to immigration concerns, please contact the University's Equal Opportunity & Title IX office at 775-784-1547. Resources and interim measures are available to assist you. For more information, please visit the [Equal Opportunity and Title IX](#) page.*

## Statement on Campus Closures or Delays

*In the event of class cancellations or delays caused by inclement weather conditions, fire/smoke conditions, or other unforeseen emergencies, the safety and well-being of students are the University's top priority. Official notifications will be disseminated through the University website and other official channels with details related to any campus delays or closures.*



*In the event of a campus closure, you will be informed as to whether the class will be offered remotely or if it will be canceled. If the class is cancelled, you will receive information on how to address any missed course content.*

*Students facing significant impacts due to these events are encouraged to communicate with their instructor for potential accommodations.*