M-W 11:30 AM - 12:45 PM, BPB 102

Faculty: Dr. Jeremy Koonce

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Office Hours: Mon. 2:00–3:00 PM, Tues. 3:00–4:00 PM, Wed. 2:00–3:00 PM, and by appointment

Course Format: Lecture twice a week

Required Textbook: Geosystems, R.W. Christopherson and G.H. Birkeland, UNLV Custom Edition

Prerequisites: No university prerequisites

Learning Outcomes:

This course will further your understanding of the Earth systems that operate all around you, and will inspire you to learn more about how our society interacts with, is dependent upon and affects these systems.

Upon completion of this course, students will be able to:

- Summarize the concept of systems science, articulating components including open and closed systems, equilibrium
 and feedbacks, and be able to provide basic everyday examples of each
- Demonstrate the principles of mapping including scale, projection and a critical awareness of map generalization and distortion
- Explain the interactions of energy and moisture within the atmosphere that results in the formation of weather systems, as well as interpret basic weather symbols and common weather patterns displayed in a typical weather report
- Define the concept of climate and demonstrate an up-to-date knowledge of anthropogenic climate change to the level of being able to critically evaluate new information on this often controversial topic
- Identify the major aspects of Earth's internal structure and plate tectonic theory, articulating the connections to earthtransforming processes including earthquakes and volcanic eruptions
- Explain the hydrologic cycle, groundwater system and the process of erosion, and evaluate the influence people are having on the function of these systems through our diversion, manipulation and use of water
- Demonstrate mastery of surficial geomorphic processes including mass wasting, fluvial, eolian, and glacial
 processes by correctly identifying typical landforms and explaining the basic mechanical processes that results in
 their formation and change over time
- Demonstrate the ability to synthesize these learning outcomes in crafting essay responses to real-world scenarios
 requiring critical analysis of the physical environment, its processes and trends as part of the comprehensive final
 exam

Grading policy: Final grades will be assigned according to the following schedule. The instructor may also elect to curve the **final** grades in the students favor.

<u>Grade</u>	Semester average	<u>Grade</u>	Semester average
Α	over 93	С	between 73 and 77
A-	between 90 and 93	C-	between 70 and 73
B+	between 87 and 90	D+	between 67 and 70
В	between 83 and 87	D	between 63 and 67
B-	between 80 and 83	D-	between 60 and 63
C+	between 77 and 80	F	less than 60

Final Grades will be computed as follows:

Three lecture exams (20% each) Comprehensive final exam	60% 30%
Lecture quizzes/assignments	10%
	100%

Notes:

- 1. No extra credit will be given.
- 2. No make-up exams, make-up quizzes, or make-up exercises will be given unless you provide a written military, or university excuse. So plan to attend class.

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Date	Lecture Topic	Required Reading	
Week 1	Monday, Jan. 15 Martin Luther King Jr. Day Recess		
Jan. 15	No Class: Martin Luther King Jr. Day Recess		
Jan. 17	Intro/Essentials of Geography/Solar Energy to Earth and the Seasons	Chapter 1 / 2	
Week 2			
Jan. 22	Earth's Modern Atmosphere	Chapter 3	
Jan. 24	Atmosphere and Surface Energy Balances	Chapter 4	
Week 3			
Jan. 29	Global Temperatures	Chapter 5	
Jan. 31	Atmosphere and Oceanic Circulations	Chapter 6	
Week 4			
Feb. 5	Exam 1 (Chapters 1-6)		
Feb. 7	Water and Atmospheric Moisture	Chapter 7	
Week 5			
Feb. 12	Weather	Chapter 8	
Feb. 14	Video: Tornadoes	·	
Week 6	Monday, Feb. 19 Washington's Birthday Recess		
Feb. 19	No Class: Washington's Birthday Recess		
Feb. 21	Water Resources	Chapter 9	
Week 7			
Feb. 26	Water Resources	Chapter 9	
Feb. 28	Global Climate Systems	Chapter 10	
Week 8			
Mar. 5	Climate Change	Chapter 10B	
Mar. 7	Exam 2 (Chapters 7-10, 10B)	·	
Week 9			
Mar. 12	The Dynamic Planet	Chapter 11	
Mar. 14	The Dynamic Planet / Tectonics, Earthquakes, and Volcanism	Chapter 11 / Chapter 12	
Week 10			
Mar. 19	Tectonics, Earthquakes, and Volcanism	Chapter 12	
Mar. 21	Weathering, Karst Landscapes, and Mass Movement	Chapter 13	
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	Spring Break March 26-31		
Week 11			
Apr. 2	River Systems	Chapter 14	
Apr. 4	Eolian Processes and Arid Landscapes	Chapter 15	
Week 12			
Apr. 9	Exam 3 (Chapters 11-15)	01 1 17	
Apr. 11	Glacial and Periglacial Landscapes	Chapter 17	
Week 13			
Apr. 16	Video: Chasing Ice	01 1 10	
Apr. 18	The Geography of Soils	Chapter 18	
Week 14			
Apr. 23	Ecosystem Essentials	Chapter 19	
Apr. 25	Ecosystem Essentials	Chapter 19	
Week 15			
Apr. 30	Video: Lord of the Ants		
May 2	Review		
Week 16 Final Exam Wednesday, May 9 at 10:10 am - 12:10 pm			

Changes to Syllabus: The above lecture schedule is tentative; adjustments to the schedule of topics and reading assignments may be made in accordance with the rate of progress in the classroom. The instructor also reserves the right to change a lecture topic to reflect world events. Students will be provided with an updated syllabus if significant changes are necessary.

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Course Specific Policies

- 1. Participation Students in this class will have different backgrounds and levels of educational training. As a result, you may find some material difficult, feel that you are already familiar with some of the concepts, or have personal experiences that can inform us all. Whatever your situation, please share your position with us through class participation. Most importantly, however, if you are confused about a concept, please ask questions in class for clarification and further explanation. You will not be alone in your confusion. There are many ways to present this material, and I will attempt to find one that works for you. If you do not feel comfortable asking questions in class, please contact your lab instructor or myself.
- 2. Attendance It is important that you attend class daily because we cover a lot of material, and I will regularly provide guidance regarding reading assignments and exams. You are responsible for all material covered in lecture no matter what causes your absence. If you miss a lecture, get the notes from a classmate. Topics covered may vary from the schedule somewhat, but the exam dates will remain fixed. If you are absent from a scheduled exam in either lecture or lab without a written military or university excuse, you will receive a zero for that exam. In the case of an excused absence, the nature and format of the make-up exam will be at the instructors' discretion. The final exam is required of all students.
- **3. Official Extracurricular Activity -** All students who represent UNLV at any official extracurricular activity have the opportunity to make up an assignment. However, you must provide official written notification to me at least 1 week prior to the missed class(es).
- **4. Learning Environment -** The classroom is intended to be a place of learning. As such, and as specified in the UNLV Undergraduate Catalog, no pagers, cell phones, or other potentially disruptive devices are allowed in either lecture or laboratory. Student usage of laptop computers, recording equipment, or similar devices is only allowed with explicit permission of the instructor, and is restricted to taking notes for this course. Disruptive behavior including, but not limited to those described above, chatting, sleeping, watching video, playing games or texting may result in an administrative drop.
- 5. Non-enrolled guests Students are not allowed to bring guests, including children to either lecture or laboratory.
- **6. Academic Misconduct -** This course operates under a "zero tolerance" policy, meaning that **if a student commits cheating or plagiarism they will receive a grade of F for the class**. For more information, please see the UNLV policy on Academic Misconduct.

UNLV Policies

- 7. Academic Misconduct Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility, and professionalism. By choosing to join the UNLV community, students accept the expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling at UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution. An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the Student Academic Misconduct Policy (approved December 9, 2005) located at: https://www.unlv.edu/studentconduct/student-conduct.
- **8. Classroom Conduct** Students have a responsibility to conduct themselves in class and in the libraries in ways that do not interfere with the rights of other students to learn or of instructors to teach. Use of electronic devices such as pagers, cellular phones, or recording devices, or potentially disruptive devices or activities, are permitted only with the prior explicit consent of the instructor. The instructor may rescind permission at any time during the class. If a student does not comply with established requirements or obstructs the functioning of the class, the instructor may initiate an administrative drop.

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- **9. Classroom Surveillance** Nevada Revised Statutes (State Law) 396.970 Surreptitious electronic surveillance on campus; exceptions. [Effective January 1, 2017.]
 - 1. Except as otherwise provided in subsection 2, it is unlawful for a person to engage in any kind of surreptitious electronic surveillance on a campus of the System without the knowledge of the person being observed.
 - 2. Subsection 1 does not apply to any electronic surveillance:
 - (a) Authorized by a court order issued to a public officer, based upon a showing of probable cause to believe that criminal activity is occurring on the property under surveillance;
 - (b) By a law enforcement agency pursuant to a criminal investigation;
 - (c) By a peace officer pursuant to NRS 289.830;
 - (d) By a uniformed peace officer of the Nevada Highway Patrol Division of the Department of Public Safety pursuant to NRS 480.365;
 - (e) Which is necessary as part of a system of security used to protect and ensure the safety of persons on the campus; or
 - (f) Of a class or laboratory when authorized by the teacher of the class or laboratory. (Added to NRS by 1993, 2138; A 2015, 575, 3668, effective January 1, 2017)
- **10. Copyright** The University requires all members of the University Community to familiarize themselves with and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you, nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: http://www.unlv.edu/provost/copyright.
- 11. Disability Resource Center (DRC) The UNLV Disability Resource Center (SSC-A 143, http://drc.unlv.edu/, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to the instructor during office hours so that you may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach the instructor in front of others to discuss your accommodation needs.
- **12. Final Examinations** The University requires that final exams given at the end of a course occur at the time and on the day specified in the final exam schedule. See the schedule at: http://www.univ.edu/registrar/calendars.
- **13. Incomplete Grades** The grade of I—Incomplete—can be granted when a student has satisfactorily completed three-fourths of course work for that semester/session but for reason(s) beyond the student's control, and acceptable to the instructor, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. The incomplete work must be made up before the end of the following regular semester for undergraduate courses. Graduate students receiving "I" grades in 500-, 600-, or 700-level courses have up to one calendar year to complete the work, at the discretion of the instructor. If course requirements are not completed within the time indicated, a grade of F will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make individual arrangements with the instructor who assigned the I grade.
- **14. Library Resources** Students may consult with a librarian on research needs. Subject librarians for various classes can be found here: https://www.library.unlv.edu/contact/librarians_by_subject. UNLV Libraries provides resources to support students' access to information. Discovery, access, and use of information are vital skills for academic work and for successful post-college life. Access library resources and ask questions at https://www.library.unlv.edu/.
- **15. Rebelmail** By policy, faculty and staff should e-mail students' Rebelmail accounts only. Rebelmail is UNLV's official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students' e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu. Emailing within WebCampus is acceptable.

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- **16. Religious Holidays Policy -** Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor within the first 14 calendar days of the course for fall and spring courses (excepting modular courses), or within the first 7 calendar days of the course for summer and modular courses, of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. For additional information, please visit: http://catalog.unlv.edu/content.php?catoid=6&navoid=531.
- **17. Transparency in Learning and Teaching -** The University encourages students to use a transparency template to discuss with their instructors how assignments and course activities benefit student success: https://www.univ.edu/sites/default/files/page files/27/TILT-Framework-Students.pdf
- **18. Tutoring and Coaching -** The Academic Success Center (ASC) provides tutoring, academic success coaching and other academic assistance for all UNLV undergraduate students. For information regarding tutoring subjects, tutoring times, and other ASC programs and services, visit http://www.unlv.edu/asc or call 702-895-3177. The ASC building is located across from the Student Services Complex (SSC). Academic success coaching is located on the second floor of SSC A (ASC Coaching Spot). Drop-in tutoring is located on the second floor of the Lied Library and College of Engineering TBE second floor.
- **19. UNLV Writing Center -** One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 702-895-3908. The student's Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: http://writingcenter.unlv.edu/.

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