GEOL 333  GEOMORPHOLOGY  Spring Semester 2016

**Professor:**  Dr. Matthew Lachniet  
**Office and Hours:**  3240 SEB, Th 2:00 to 3:00 pm and by appointment  
**Contact info:**  matthew.lachniet@unlv.edu; 702-895-4388  
**Lecture room and time:**  LFG 102, T/Th 4:00 – 5:15 pm.  
**Lab manual:** Exercises available on web page  
**Laboratory:**  LFG 101, Sect. 2: Friday 8:30-11:15 am and Sect. 3: 2:30-5:15 pm.  
**Laboratory TA:**  Chad Crotty, crotty@unlv.nevada.edu, SEB 3246  
**Class Website:**  http://www.unlv.edu/faculty/lachniet/geomorphology.html  
**Final Exam:**  Tuesday 5/10/2016, 6:00 to 8:00 pm, LFG 102

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**Course Background**  
Geology 333 is a 4 credit, intermediate-level undergraduate course with laboratory on the principles of Geomorphology. I assume knowledge of basic geological concepts covered in typical introductory geology courses, such as rocks and minerals, some structural geology, sedimentology, and basic geologic terminology, in addition to knowledge of scientific units, conversion, and basic algebra and trigonometry.  

**Course Objective and Assignments**  
The objective of this course is for students to understand and be able to discuss the origin and morphology of landforms in diverse environments, including the ability to recognize landforms on photographs, aerial stereo photographs, and topographic maps. Lecture material will be supplemented with laboratory exercises and analysis of aerial stereo photographs and topographic maps.  

**Topic List:**  
1. Introduction to geomorphology (Chapters 1 and 2)  
2. Chemical Weathering and Soils (Chapter 3)  
3. Physical Weathering, mass movement, and slopes (Chapter 4)  
4. Drainage Basins (Chapter 5)  
5. Fluvial processes (Chapter 6)  
6. Fluvial landforms (Chapter 7)  
7. Wind processes and landforms (Chapter 8)  
8. Glaciers and Glacial Mechanics (Chapter 9)  
9. Glacial erosion, deposition, and landforms (Chapter 10)  
10. Karst processes and landforms (Chapter 12)  
11. Coastal processes and landforms (Chapter 13)  

**Learning Outcomes:**  
By the end of this class, students will have demonstrated proficiency in the following learning outcomes: 1) a competent level of ability to read, interpret, and make topographic maps, and understand coordinate systems and scale; 2) a competent level of ability to read and interpret aerial photographs; 3) apply knowledge of physical and chemical weathering processes to interpret landforms; 4) understand the concepts of dynamic equilibrium in geomorphology; 5) identify intrinsic and extrinsic thresholds in geomorphic systems; 6) identify common landforms visually, on topographic maps, and on aerial photographs; 7) discuss the role of tectonics, time, and climate on geomorphology; 8) comprehend and recall an in-depth vocabulary of geomorphic terms; 9) apply critical thinking skills to solve Earth surface problems; 10) understand the concept of recurrence intervals in climate and geomorphology; 11) link understanding of geomorphic processes to landforms.
**Student responsibilities**
Students’ responsibilities will include a) attending lectures and laboratories, b) taking lecture notes to supplement assigned readings, c) taking exams, and d) completing exercises. Examinations will cover material from classroom lectures, laboratories, and assigned readings.

**Attendance**
I will take attendance throughout the semester. Attendance in lecture and laboratory is required. You may fail the class if you have more than **FIVE unexcused absences**, in both lecture AND lab. It is your responsibility to attend and be on time for class. It is the student’s responsibility to inform the instructor no later than the last day of late registration of classes to be missed for religious holidays.

**Grading policy**
Your grade for this class will be determined by your exam scores.

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<thead>
<tr>
<th>Examination</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Exam 1 (not cumulative)</td>
<td>25%</td>
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<tr>
<td>Exam 2 (not cumulative)</td>
<td>25%</td>
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<tr>
<td>Laboratory</td>
<td>25%</td>
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<tr>
<td>Final Exam (cumulative)</td>
<td>25%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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Grade ranges (with + and –) will be assigned by percentage as follows: ≥90% = A; 80 to 89% = B; 70 to 79% = C; 60 to 69% = D, <60 = F.

**What do the grades mean?**
“A” = exceptional performance and demonstration of expertise (I would hire you in a search)
“B” = above average but not exceptional, proficient but not expert (I would consider hiring you)
“C” = average; basic competency in course material (probably not competitive for hiring)
“D” = below average (not hirable)
“F” = the student has not demonstrated a basic level of competency in the course material.

To earn an “A” in this class, you should demonstrate exceptional knowledge of the course material. An “A” typically requires that you should: 1) read **all** of the assigned readings, 2) attend class every day and arrive on time, 3) know all of the terminology and be able to identify all of the landforms we discuss in lecture and lab, 4) perform well on exams, and 5) attend all laboratory classes. Most importantly, students who are naturally curious and ask questions are more likely to perform well. A fundamental requirement of doing well in this class is knowing how to create and read topographic maps.

**How much time should you spend studying to get an "A"?** Six to nine hours a week! A general rule of thumb is 2 to 3 hours of studying for each credit hour you are taking.
Cell Phone Policy:
Cell phones have become an integral part of our society, but out of respect for your fellow students and your professor, please turn off all cell phones before entering class. Your peers’ time is valuable, and please respect everyone’s right to a disruption-free learning experience. It is disrupting to use cell phones or leave the room to answer a cell phone call while class is in session, so please practice respect for your fellow students. Leaving class to answer a cell phone call may be counted as an unexcused absence. If I see you texting during class I will ask you to leave and mark you absent; repeated use may see you dropped from the class.

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 Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in 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: http://studentconduct.unlv.edu/misconduct/policy.html. We work on an honors system. If you are aware of cheating, please inform me. It is easy to detect plagiarism of web-based sources, so don’t do it. To deter incidents of cheating and/or plagiarism this class employs a “zero tolerance” policy, meaning that if a student commits cheating or plagiarism they receive a grade of F for the class and a notation may be added to your transcript to indicate academic misconduct.

Copyright – The University requires all members of the University Community to familiarize themselves 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://provost.unlv.edu/copyright/statements.html.

Disability Resource Center (DRC) – The Disability Resource Center (DRC) determines accommodations that are “reasonable” in promoting the equal access of a student reporting a disability to the general UNLV learning experience. In so doing, the DRC also balances instructor and departmental interests in maintaining curricular standards so as to best achieve a fair evaluation standard amongst students being assisted. In order for the DRC to be effective it must be considered in the dialog between the faculty and the student who is requesting accommodations. For this reason faculty should only provide students course adjustment after having received an “Academic Accommodation Plan.” If faculty members have any questions regarding the DRC, they should call a DRC Counselor. UNLV complies with the provisions set forth in Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. The DRC is located in the Student Services Complex (SSC-A), Room 143, phone (702) 895-0866, fax (702) 895-0651. For additional information, please visit: http://drc.unlv.edu/.

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 no later than the end of the first two weeks of classes, February 1, 2013, of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. This policy shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship on the instructor or the university that could not reasonably been avoided. For additional information, please visit: http://catalog.unlv.edu/content.php?catoid=4&navoid=164.

Incomplete Grades - The grade of I – Incomplete – can be granted when a student has satisfactorily completed all course work up to the withdrawal date of 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. A student who receives an I is responsible for making up whatever work was lacking at the end of the semester. 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.

Tutoring – The Academic Success Center (ASC) provides tutoring and academic assistance for all UNLV students taking UNLV courses. Students are encouraged to stop by the ASC to learn more about subjects offered, tutoring times and other academic resources. The ASC is located across from the Student Services Complex (SSC). Students may learn more about tutoring services by calling (702) 895-3177 or visiting the tutoring web site at: http://academicsuccess.unlv.edu/tutoring/.
**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 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/](http://writingcenter.unlv.edu/)

**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.

**Learning Environment**
The classroom is intended to be a place of learning, as specified in the UNLV Undergraduate Catalog under Classroom Conduct (p. 63). Any other activities which disrupt the class or interfere with the learning experience of others will not be tolerated. If these guidelines are not followed I may, as outlined in the University Catalog, initiate an administrative drop.