

GEOMORPHOLOGY (GEOG353/553; GEOL 353) - Fall 2019

~ In this course we will undertake a survey of the major landform types, and explore the principle theories and concepts that describe the processes of landform creation ~

- **Lecture:** MW 12:00-12:50, 229 Gardiner Hall, **Lab:** Thurs. 1:30-4:00; 185 Breland Hall
- **Dr. Dan Dugas:** Breland148, 646-1045, ddugas@nmsu.edu or via Canvas messaging
- **Office Hrs:** Mon. 2:00-3:30 & Tues. 10:30-12:00, or by appointment
- **Text:** "Key Concept in Geomorphology" by Bierman & Montgomery, 5th edition, 2014

<u>Dates:</u>	<u>Topics/Readings/Exams:</u>	<u>Lab dates:</u>	<u>Lab topics:</u>
W 8/21	Introduction (Chapters 1)	Th 8/22	No Lab
M 8/26	Historic/Basic Concepts (Ch.14)		
W 8/28	Historic/Basic Concepts (Ch.14)	Th 8/29	No Lab
M 9/2	No Class		
W 9/4	Cenozoic Climates (Ch. 13)	Th 9/5	No Lab
M 9/9	Cenozoic Climates (Ch. 13)		
W 9/11	Cenozoic Climates (Ch. 13)	Th 9/12	Rock Fall (20 pts.)
M 9/16	Geomorphic Surfaces (pgs 80-82)		
W 9/18	Review	Th 9/19	Trip 1A - Geom Surfaces
M 9/23	Exam #1 (100 pts.)		
W 9/25	Weathering (Ch. 3)	Th 9/26	Trip 1B - Geom Surfaces
M 9/30	Weathering (Ch. 3)		
W 10/2	Landslides Homework #1 due	Th 10/3	Trip 2A - Debris Slides
M 10/7	Hillslopes and Mass Movement (Ch.5)		
W 10/9	Hillslopes and Mass Movement (Ch.5)	Th 10/10	Trip 2B - Debris Slides
M 10/14	Fluvial Processes (Ch. 6 & 7)		
W 10/16	Fluvial Proc.(Ch. 6 & 7) Homework #2	Th 10/17	Trip 3A - Flood Ctrl.
M 10/21	Fluvial Landforms (Ch. 6 & 7)		
W 10/23	Fluvial Landforms (Ch. 6 & 7)	Th 10/24	No Lab
M 10/28	Review. Homework #3 due		
W 10/30	Exam #2 (100 pts.)	Th 10/31	Stream Table – Intro.
M 11/4	Aeolian Process. and Landforms (Ch. 10)		
W 11/6	Aeolian Process. and Landforms (Ch. 10)	Th 11/7	Trip 3B - Flood Ctrl.
M 11/11	Desert Geomorphology (Ch. 10)		
W 11/13	Desert Geomorphology (Ch. 10)	Th 11/14	Stream Table (continued)
M 11/18	Glacial Processes and Landforms (Ch. 9)		
W 11/20	Glacial Cont.	Th 11/21	"
M 12/2	Glacial Continued		
W 12/4	Review		
F 12/13	Exam #3, 1:00-3:00 p.m. (100 pts.)		

GRADING: Your final grade will be based on a percentage of the following **670 total points**:

- Three lecture examinations (100 points each) 300 pts.
- Three homework assignments (50 points each)....150 pts.
- One indoor lab exercise (30 points).....30 pts.
- One stream table report.....100 pts.
- Three field trip reports (30 points each).....90 pts.

Final grades will be evaluated based on the following scale: (There is no curve.)

A+ = 100% to 94%	B- = < 84% to 80%	D = < 67% to 64%
A = < 94% to 93%	C+ = < 80% to 77%	D- = < 64% to 60%
A- = < 93% to 90%	C = < 77% to 74%	F = < 60% to 0%
B+ = < 90% to 87%	C- = < 74% to 70%	
B = < 87% to 84%	D+ = < 70% to 67%	

- **Homework #1:** Read Chapter 2. Choose 10 questions from those on pages 72-73 and answer them (typed, double-spaced). You may submit your answers digitally.
- **Homework #2:** Read Chapter 4. Choose 10 questions from those on pages 142-143 and answer them (typed, double-spaced). You may submit your answers digitally.
- **Homework #3:** Read Chapter 8. Choose 10 questions from those on page 287 and answer them (typed, double-spaced). You may submit your answers digitally.
- **Lecture examinations** will focus on lecture materials and readings. Lecture Exams may not be taken early for any reason. You may makeup only one of the first two exams. The lecture makeup must be scheduled the first day you return to class after the missed exam, otherwise it is counted as a zero. There is no makeup for the final lecture exam.
- Add/ Drops** - The deadline for registration/course additions (with instructor's permission) is 8/30/2019. The last day to drop a course with a W (except courses carrying designated dates) is 10/18/2019. The last day to Withdraw from the university is 12/6/2019. Students are responsible for withdrawing from class. The instructor will not withdraw a student for not attending class or not completing the course. In order to obtain an "S" grade in Geography-111G, a minimum of 70 percent of the total course points must be obtained, and you must earn a passing grade for the lab (>60%) independent of your lecture exam scores, for a final passing grade.
- Academic and non-academic misconduct:** The Student Code of Conduct defines academic misconduct, non-academic misconduct and the consequences or penalties for each. The Student Code of Conduct is available in the NMSU Student Handbook online: <http://studenthandbook.nmsu.edu/> Academic misconduct is explained here: <http://studenthandbook.nmsu.edu/student-code-of-conduct/academic-misconduct/>
- Discrimination and Disability Accommodation:** Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act Amendments Act (ADA) covers issues relating to disability and accommodations. If a student has questions or needs an accommodation in the classroom (all medical information is treated confidentially), contact: Student Accessibility Services (SAS), Corbett Center Student Union Room 208, Trudy Luken, Director, 575-646-6840, sas@nmsu.edu

- New Mexico State University, in compliance with applicable laws and in furtherance of its commitment to fostering an environment that welcomes and embraces diversity, does not discriminate on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, retaliation, serious medical condition, sex (including pregnancy), sexual orientation, spousal affiliation, or protected veteran status in its programs and activities, including employment, admissions, and educational programs and activities. Inquiries may be directed to the Laura Castille, Executive Director, Title IX and Section 504 Coordinator, Office of Institutional Equity, P.O. Box 30001, E. 1130 University Avenue, Las Cruces, NM 88003; 575.646.3635; 575-646-7802 (TTY); equity@nmsu.edu.
- Title IX prohibits sex harassment, sexual assault, intimate partner violence, stalking and retaliation. For more information on discrimination or Title IX, or to file a complaint contact:

Laura Castille, Executive Director and Title IX Coordinator
Office of Institutional Equity (OIE) - O'Loughlin House, 1130 University Avenue
Phone: (575) 646-3635 E-mail: equity@nmsu.edu
Website: <http://equity.nmsu.edu/>

- **Other NMSU Resources:**

NMSU Police Department: (575) 646-3311 www.nmsupolice.com
NMSU Police Victim Services: (575) 646-3424
NMSU Counseling Center: (575) 646-2731
NMSU Dean of Students: (575) 646-1722
For Any On-campus Emergencies: 911

- **Plagiarism:**

Plagiarism is using another person's work without acknowledgment, making it appear to be one's own. Intentional and unintentional instances of plagiarism are considered instances of academic misconduct and are subject to disciplinary action such as failure on the assignment, failure of the course or dismissal from the university. The NMSU Library has more information and help on how to avoid plagiarism at <http://lib.nmsu.edu/plagiarism/>

- The Teaching Academy has excellent resources for the development and review of syllabi. For more information please visit <http://teaching.nmsu.edu/Resources/rubrics/index.html>
- E-mail address: I will only use your NMSU e-mail address or the Canvas messaging system for electronic communications.

****A point of clarification:** If a student drops by 5pm on the last day to cancel a class, a "W" will not appear on his/her transcript. After the last day to cancel a class and up to the deadline to drop a course, a "W" will appear on the transcript and students will not receive a refund of any tuition.

GEOMORPHOLOGY (GEOG353)

COURSE DESCRIPTION:

A survey of the major landform types and exploration of the principle theories and concepts that describe the processes of landform creation.

ENABLING COMPETENCIES: Student will gain knowledge of...

- a basic history of geomorphic theory and methods
- The trends and probable causes of Cenozoic Climate Change and its links to basic landform processes
- The fundamental concepts of geomorphic surfaces and how these are expressed locally
- The multiple processes of weathering and how these contribute to the geomorphic landscape and soil formation
- the processes of hillslope evolution and associated natural hazards
- The complexity of fluvial processes and the fundamental types of landforms that ensue
- The complexity of eolian and other arid land processes and the fundamental types of landforms that are created, including local examples
- The fundamental concepts of ice formation erosion and landform creation; glacial/interglacial climate cycles.

TERMINAL COMPETENCIES: students will be able to demonstrate the ability to...

- accurately describe the general trends of Cenozoic climate change and the resulting variation in landforms created
- recognize and describe the general soil formation features of a sequence of geomorphic surfaces found in the Las Cruces area
- recognize and describe the general mass movement features of debris slides in the Organ Mountains
- recognize and describe the relationship between urban development and natural arroyo systems in the local area and understand the impacts of these systems on populations and urban design
- Design and implement a fluvial system experiment, analyze the data, and report on findings