

**GEOGRAPHY OF THE NATURAL ENVIRONMENT (GEOG 111G):
AN INTRODUCTION TO PHYSICAL GEOGRAPHY**

New Mexico State University
Department of Geography



SPRING 2012

Lecture: Tue & Thu, 8:55 - 10:10; Chemistry Building 111

Instructor: Dr. Michaela Buenemann

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Office Hours: Mon, 9:30 – 12:30; Tue, 10:15 – 12:30; Wed, 9:30 – 12:30; Thu, 10:15– 12:00 (Please sign up on my office door to ensure that my time is all yours!); by appointment

T.A.s: Alanna Jentgen

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Office Hours: Tue, 14:00 - 15:30, Wed, 9:30 - 11:00, by appointment

David Silcock

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Office Hours: Tue & Wed, 11:00 - 12:00; Thu, 11:00 – 13:00; by appointment

Matt Vogt

Office: Breland Hall 142

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Office Hours: Mon, 13:30 - 14:30; Wed & Fri, 12:00 - 13:00; by appointment

Lab Section	Day	Time	Location	T.A.
M1A	Monday	10:55 - 13:25	Breland Hall 185	David
M1B	Tuesday	10:20 - 12:50		Alanna
M1C	Wednesday	10:55 - 13:25		Alanna
M1D	Thursday	14:30 - 17:00		David
M1E	Friday	9:30 - 12:00		Matt

Course Description

The physical landscape of the earth's surface constantly changes over space and through time. It is a complex interface where the four principle spheres of the environment meet, overlap, and interact: the **ATMOSPHERE** (air), the **LITHOSPHERE** (rocks), the **BIOSPHERE** (plants and animals), and the **HYDROSPHERE** (water). While meteorologists, geologists, biologists, and hydrologists deal with each of the systems separately, physical geographers are concerned with the overall **SPATIAL** and **TEMPORAL** picture that results from the **INTERACTIONS** of climate, water, landforms, vegetation, soils, etc.. Understanding these spatio-temporal interactions is critical, because our **SURVIVAL** depends on the informed management of the goods (e.g., water, food, and fuel) and services (e.g., waste decomposition, water and air purification, and nutrient cycling) provided by the natural environment. The course includes a lecture and a lab component, both of which are student-centered and thus highly interactive.

Student Learning Outcomes

Upon completion of this course, you should be able to:

- synthesize the processes responsible for observed and potential future patterns of climate, biota, soil, water, and landforms;
- evaluate environmental issues using evidence, concepts, and tools from geography and related disciplines; and
- think and reason like a geographer;

Course Structure

This is a **fast-paced course with a steep learning curve**: the course introduces a variety of interrelated concepts, terms, and principles relevant to physical geography. The major topics are treated somewhat separately in each of the chapters in your textbook as well as during the lectures. However, the subject of physical geography can only be fully appreciated or grasped by **SYNTHESIS** and **INTEGRATION** of the many topics discussed throughout the semester. In other words, the topics discussed throughout the semester are interrelated in intricate ways—an understanding of topics treated during the third week of class demands an understanding of the topics treated during the first and second weeks of class, and so forth. It is thus crucial that you always keep up with the readings, conversations, and assignments and that you always attend class and lab sessions. **WE** will do our very best to **FACILITATE LEARNING** (i.e., to help you achieve the learning outcomes stated above)—we will always prepare course materials to the best of our abilities and give you tasks that will help you better learn key concepts and techniques. **YOU** are **RESPONSIBLE** for **LEARNING ITSELF**.

Course Materials

Website

You can find the website for this course at <https://learn.nmsu.edu/>. To access course materials, simply log in to your Blackboard account and click the link for this course. On the website, you

will find lecture slides, lab assignments, announcements, your grades, and more. The website is a key element of this course and you are required to review its contents regularly. If you encounter problems related to the website, please contact us immediately.

E-mail

Official communication to you will often come through your NMSU e-mail box, not through your Gmail or other personal non-NMSU e-mail box. Access your NMSU e-mail regularly, or forward it to your current use address, as your success in college may ride on your ability to respond quickly. To ensure timely (within 24 hours, except weekends and holidays) and meaningful responses to your emails, a) use NMSU email, not Blackboard email; b) begin your emails with a proper greeting that includes the name of the person/s you are emailing; c) conclude your emails with a closing that includes your name; and d) use proper spelling, grammar, capitalization, and punctuation in your emails.

Required Materials

Hess, D. 2010. *Physical Geography: A Landscape Appreciation*. 10th ed. Upper Saddle River, NJ: Prentice Hall.
 “Clicker” – CPS Pulse Response Pad, EINSTRUCTION

Lab Manual

There is no formal lab manual for this class. Introductory chapters to the lab exercises will be posted on our course website under “Labs” and you are required to print and read them *before* attending the lab—they provide an excellent summary of key concepts and will help you solve the lab problems more efficiently and successfully. We will provide copies of the actual lab exercises in class.

Grading

Your final course grade is determined by the amount of points you accrue out of a total possible 1000 points. The points are allocated as follows:

Exams (× 3):	440 points	44 %	} 1,000 Points (100 %)
Labs (× 13):	260 points	26 %	
Take-Home Assignments:	200 points	20 %	
In-Class Activities:	100 points	10 %	

Your final course letter grade will be based on the following scale:

A	95-100%	B	84-86%	C	74-76%	D	64-66%
A-	90-94%	B-	80-83%	C-	70-73%	D-	60-63%
B+	87-89%	C+	77-79%	D+	67-69%	F	< 60%

Individual assignments and tests will not be curved (↑ or ↓). We *may* make adjustments of the final letter grade after an assessment of the class curve at the end of the term. We consider class participation, attendance, and improvement over the term as justification for discounting a grade that is uncharacteristically lower than others.

Exams

There will be three exams, each of which will be comprehensive, assessing your learning since the beginning of the semester. The number of points that you may acquire on each exam is 220. However, only the best of the first two exams will be counted towards your final grade as well as

the final exam. So, collectively, the exams will determine **44 %** (440 points) of your final course grade. More details concerning the exams will be provided to you in class.

Labs

There will be thirteen lab exercises, each accounting for 2 % (20 points) of your final course grade or for a combined total of **26 %** (260 points). The laboratory sessions are thus crucial to your overall success in this course. In the lab, working collectively with others on assignments is very beneficial. So, on the first day of labs, you will be divided into teams, each comprised of roughly four students. Each team will be made up of a diversity of individuals but the different teams will be comparable to each other (e.g., each team will be composed of roughly the same number of men and women, geography and regional development majors; freshmen and seniors; etc.). That is, all teams will be roughly equally strong. Members of every individual team will complete assignments as just that—a team. However, while you as a team member will initially receive the same grades as all other members of your team, adjustments of your grades (upward or downward) will be made based on peer evaluations. That is, on three occasions during the semester (on exam days), each team member will evaluate all other team members in terms of their contributions to the success of the team (e.g., preparedness, reliability, participation in discussions, ability to compromise and respect other people's ideas). The results from these peer evaluations will be used to adjust the lab 'team' grades acquired since the semester beginning / previous peer evaluation. It is thus in your own best interest to always be prepared and contribute as much as possible to teamwork and discussions. Also note that questions about assigned lab exercises are considered fair game for inclusion on exams, further stressing the importance of your vigorous participation in the lab sessions. Further details regarding the labs and peer evaluations will be provided to you in class and on the course website.

In-Class Activities

In-class participation is crucial in order for you to learn and we will provide you with many in-class opportunities (e.g., clicker questions, essays, exercises) to do just that. By actively participating in these opportunities, you may earn 100 points (**10 %**) of your final course grade.

Take-Home Assignments

Similar to in-class participation, active engagement with course materials outside of class is critical to help you acquire the learning outcomes for the course. So, you will have the opportunity to earn 100 points (**10 %**) of your final course grade by completing various tasks designed to foster your intellectual and personal growth outside the classroom.

Policies, Codes, Etc.

CODE OF ACADEMIC INTEGRITY: Enrollment in this course and acceptance of this syllabus is your **contract** constituting acceptance of all University policies regarding academic integrity, including but not limited to cheating and plagiarism. You are expected to comply fully with the NMSU Honor Code as presented in the Student Code of Conduct Handbook (<http://www.nmsu.edu/~vpsa/SCOC/index.html>). Students who are judged to be guilty of academic dishonesty (see Section III of the Handbook or <http://www.nmsu.edu/~vpsa/SCOC/misconduct.html>) on any graded class component will receive no points for that component, and the instructors reserve the right to consider more severe penalties such as failure of the course and referral to the Dean and Student Judicial

Affairs.

STUDENTS WITH DISABILITIES: If you have, or believe you have a disability, you may contact the Student Accessibility Services (SAS) Office located in Corbett Center, Room 244, 575-646-6840, or email sas@nmsu.edu. Appropriate accommodations may then be provided for you. All medical information will be treated confidentially. If you have a condition which may affect your ability to exit safely from the premises in an emergency during class, you are encouraged to discuss this in confidence with the instructor and/or the Director of University Disability Services/ADA Coordinator, Diana Quintana, at the SAS Office. Questions regarding the Americans with Disabilities Act (ADA), the American with Disabilities Amendment Act and/or Section 504 of the Rehabilitation Act of 1973 should be directed to the SAS Office.

NON-DISCRIMINATION: Contact Gerard Nevarez, Office of Institutional Equity, at 575-646-3635 concerning any questions you may have about NMSU's Non-Discrimination Policy (<http://www.nmsu.edu/~vpsa/APAP/nondiscrimination.html>) and complaints of discrimination.

ABSENCE POLICY: Absences due to University-sanctioned activities, work-related events, holidays or special events observed by organized religions, or illness will be excused, if you provide us with official written documentation explaining your absence. We don't really have any additional absence policies. Just keep in mind that learning is your responsibility and that much of your learning happens in class.

WITHDRAWALS AND INCOMPLETES: Withdrawals from this course are solely your responsibility; we will not withdraw or drop you from this class under any circumstances! If you no longer wish to be enrolled in this course, you must drop it. Students still on the class roll at the end of the semester will be issued grades based on work completed. Incomplete grades will not be given except in the case of extraordinary situations related to serious illness, bereavement, or personal crises; documentation will be required in these limited cases, and incompletes will be granted solely at our discretion.


WHAT YOU CAN EXPECT FROM US: We will be available in class, during office hours and scheduled appointments, and via email to respond to any questions or concerns you may have. Don't be shy and contact us as soon as ambiguities, problems, or concerns arise! We will take all of your concerns seriously and respond to you as soon and as specific as possible. We will address any issues that are of importance to all students in class and on Blackboard. We will do our very best to always be prepared for class, grade assignments fairly, and return your work promptly (within one week). We reserve the right to change scheduled lectures, exams, and assignments to help you learn better.

WHAT WE EXPECT FROM YOU: Enrollment in this course and acceptance of this syllabus is your **CONTRACT** constituting acceptance of ALL New Mexico State University policies and codes as well as ALL specific policies outlined in this syllabus. We trust that if you decide to join this course you actually want to engage in the full course experience and make the course worthwhile for you and others in our learning community.



Tentative Course Outline

Week	Date	Topics
1	01/19	✓ Syllabus & A Warm Welcome
2	01/24	Foundations of Geography (Ch. 1, pp. 2-7) ✓ Geography, Hypotheses, Facts, Theories, Laws, The Scientific Method
	01/26	Portraying Earth (Ch. 2, pp. 26-47) ✓ Maps & Geographic Information Science and Technology
	Lab	<i>No Lab</i>
3	01/31	Introduction to Our Planet Earth (Ch. 1, pp. 7-25) ✓ The Planet Earth and its Place in Space ✓ Earth-Sun Relationships
	02/02	✓ The Global Energy System
	Lab	<i>Lab #1: Maps</i>
4	02/07	Earth's Atmosphere & Hydrosphere ✓ Atmospheric Temperature (Ch. 3, pp. 48-65; Ch. 4: pp. 66-95)
	02/09	✓ Atmospheric Moisture (Ch. 9, pp. 234-259; Ch. 6, pp. 126-159)
	Lab	<i>Lab #2: Earth-Sun Relationships</i>
5	02/14	✓ Atmospheric & Oceanic Circulation (Ch. 5, pp. 96-125)
	02/16	✓ Weather Systems: Air Masses, Fronts, and Disturbances (Ch. 7, pp. 160-187)
	Lab	<i>Lab #3: Atmospheric Temperature and Moisture</i>
6	02/21	✓ Climate Systems: Classification and Regionalization (Ch. 8, pp. 189-220)
	02/23	Preparation for the 1 st Exam
	Lab	<i>Lab #4: Atmospheric Pressure and Wind</i> <i>Peer Evaluation #1</i>
7	02/28	✓ Exam 1
	03/01	✓ Climate Change (Ch. 8, pp. 220-233)
	Lab	<i>Lab #5: Climate Classification</i>
8	03/06	Earth's Lithosphere ✓ Soils I (Ch. 12, pp. 322-351)
	03/08	✓ Soils II
	Lab	<i>Lab #6: Climate Change</i>
9	03/13	✓ Endogenic Processes I (Ch. 13, pp. 352-373)
	03/15	✓ Endogenic Processes II (Ch. 14, pp. 374-415)
	Lab	<i>Lab #7: Soils</i>
10	03/20	<i>Spring Break (March 19-23; No Classes, No Labs)</i>
	03/22	<i>Spring Break (March 19-23; No Classes, No Labs)</i>
	Lab	<i>Spring Break (March 19-23; No Classes, No Labs)</i>

11	03/27	✓ Exogenic Processes I (Ch. 15, pp. 416-435)
	03/29	✓ Exogenic Processes II
	Lab	Lab #8: Rocks & The Rock Cycle Peer Evaluation #2
12	04/03	✓ Exam 2
	04/05	Earth's Biosphere ✓ Biogeographic Principles (Ch. 10, pp. 260-283)
	Lab	Lab #9: Endogenic & Exogenic Processes
13	04/10	✓ Terrestrial Biomes (Ch. 11, pp. 284-321)
	04/12	Geomorphology ✓ Fluvial and Coastal Landscapes (Ch. 16, pp. 436-465)
	Lab	Lab #10: Biogeography
14	04/17	✓ Karst and Hydrothermal Landscapes (Ch. 17, pp. 466-479)
	04/19	✓ Glacial and Periglacial Landscapes (Ch. 19, pp. 502-531)
	Lab	Lab #11: Fluvial Landscapes
15	04/24	✓ Arid Landscapes I (Ch. 18, pp. 480-501)
	04/26	✓ Arid Landscapes II
	Lab	Lab #12: Karst Landscapes
16	05/01	Environmental Issues & Sustainable Land Management ✓ Various topics
	05/03	✓ Various topics
	Lab	Lab #13: Arid Landscapes Peer Evaluation #3
17	05/10	Final Exam (8:00 AM – 10:00 AM)  No longer a tourist, but a traveler!