Fall 2018 Syllabus - GES1010, Environmental Systems: Landforms & Soils

Instructor: Dr. Brandon Vogt **Email**: bvogt@uccs.edu
Office: COH rm. 2011 **Office hours**: Thursdays 10am - 2pm & by appt.
Class meets: Tuesdays 1:40 - 5:00 pm, COH rm. 334
Course website: https://academics.uccs.edu/bvogt/courses/ges1010/

GES1010 – 1/2 of physical geography?

In this class, students focus on earth's landscapes and landforms and the various processes that shape these features. Other key elements of physical geography, such as earth's atmosphere, climate systems, and vegetation, play vital roles in landform evolution -- these topics are covered in GES1010's partner course, GES1000, Environmental Systems: Climate and Vegetation.

So, what exactly is this course about?

At and near the earth's surface, combinations of resisting forces (e.g., geologic framework) and driving forces (e.g., tectonic, gravitational, water) are constantly at work. These forces create, destroy, and sculpt the incredible variety of landforms and landscapes we have come to recognize and love, such as the sandstone fins in Garden of the Gods. Some forms, that are just as exciting as fins, you may not have heard of… What is desert varnish? What are tafoni? What are gnamma pits? What are hanging valleys? Believe it or not, all of these forms sit right here in Colorado and are just dying to be talked about. In addition to discussing landforms and the processes that sculpt them, we'll cover concepts of time and scale, and we'll discuss a few key technologies and some data collection instruments that support research in physical geography.

Topics:

You should have the 10th or later Edition of McKnight's Physical Geography: A Landscape Appreciation textbook (required). We will cover parts of Chapters 1, 2, and 12 - 20. Also, Brandon brings to the classroom a few additional concepts / tools of physical geography that are not covered in the book. Here is a list of topics: What is geography and what is physical geography; an intro. to earth; portraying earth (seasons and mapping); soils; intro. to landform study, including important earthly concepts; internal processes; weathering and erosion; fluvial processes; solution processes: Karst topography and geothermal features; the topography of arid lands; glacial modification of terrain; coastal processes and terrain; scale and measurement; some applications of geographic information systems (GIS) and remote sensing (i.e., LiDAR) in physical geography.

Learning goals and objectives: Students will…

> learn how to take notes during lecture (tests are made from Brandon's lectures)
> develop fluency with the terminology of physical geography
> understand concepts of weathering and erosion
> identify links between natural physical earth processes and human environmental hazards
> learn and apply tools of landscape study, such as map interpretation and basic rock identification
> develop observation skills to interpret the physical world and hypothesize landscape development
> express your interpretations, observations, hypotheses, and evidence, in a concise written format

Grading: All grades / attendance are posted in Canvas

65% Exams: Midterm and final @ 32.5% each
30% Labs: 6 @ 5% each
5% Attendance: -2% for each class missed unexcused*; -5% for distracting class by sleeping, texting, chatting with classmates, regularly arriving late.
F for poor attendance: Students fail the course if more than 3 classes are missed and **unexcused***.
F for cheating on an Exam
* **'unexcused'** means WITHOUT A DR'S or NURSE'S NOTE or SIMILAR (e.g. jury duty notice). An email right before class citing car trouble, stuck in Vail, etc., does not count as an excused absence.

> Exams - Two exams are given in the course – a midterm and a final. The final is comprehensive. Both exams include most of the following: multiple choice, matching, true-false, short answer, map / image interpretation, map creation. Material covered on exams comes directly from lecture as outlined on PowerPoints, most of which is discussed in your book. Note that not all of the content on exams is in the book – Brandon supplements the course content using other sources of information (e.g., lab materials, current events, in-class videos / movies). No make-up exams are given. You cannot take an exam late OR early. If an exam or part of an exam is missed, the exam grade will count as a 0 (an F). Both exams are given in two parts (see 'Details on Pyramid Format' below)

> Labs - Lab protocol will be discussed the day of the lab. Some labs are completed in class while other labs are completed in the library by completing an online module. Students will usually complete most of the lab exercises during class time. Some labs are due by the end of class the same day that the lab is handed out while other labs are due at the start of the class the following week. If the lab is completed in class and is due before class is dismissed, no points are given to students not in class that day. If labs (other than those due same-day in class) are turned in late, no credit is given for lab.

> Field trip (required) - We will spend a full class period exploring the UCCS Heller Center.

> Extra credit in the form of bonus points on exams - is available by attending certain on-campus lectures, presentations, colloquia, etc. Brandon will announce qualifying opportunities in class.

Text, readings, and PowerPoints

> Text - McKnight, T. and D. Hess. 2011. McKnight's Physical Geography, 10th (or later) edition. Pearson Prentice Hall: New Jersey.

> Readings - Readings including a journal article and a book chapter will be assigned. These materials are available in Canvas.

> PowerPoints - Lectures are outlined using PowerPoint presentations. These are available the day of or the day after class for review and for download via the course website.

Details on 'Pyramid Exam' format

A primary objective of the pyramid exam format is to enforce that students know the answers to the exam questions by the time they leave the room at the end of the test. While taking the exam in groups, argue… debate… be forceful. Do whatever it takes to convince group members that you know the correct answer.

A Pyramid Exam format includes part A (80% of total) and part B (20% of total). Part A is taken individually with closed book and closed notes. Part B, also closed book and closed notes, is taken in a group of three or four. During Part B, students are encouraged to talk with anyone (except instructor) in the room to identify the correct answers. Exam grades are calculated as follows: (Part A individual points earned / total exam points)*0.80 + (Part B group points earned / total exam points)*0.20. *Information extracted from Dr. Barbara Munn.*

Academic expectations and student conduct

Plagiarizing, using sources without documentation, cheating, fabrication and falsification, multiple submission, and misuse of academic materials represent intellectual theft and violate UCCS's Academic Honor Code. Students are encouraged to work together and talk through issues, but all final written work should belong to each individual student. UCCS has established a code of conduct and classroom behavior policy to maintain the general welfare of the University community. The University strives to make the campus community a place of study, work, and residence where people are treated with civility, respect, and courtesy. For more, see UCCS' student conduct pages.

Students with disabilities

Students with disabilities who qualify for academic accommodations must provide a letter from Disability Services and discuss specific needs with their instructor during the first two weeks of class. The Disability Services office is in Main Hall # 105, (719) 255-3354.