Course description: Physical geography addresses how physical, chemical and biological principles shape human landscape patterns and, in turn, how humans affect their physical world within a global to local context. Students will learn how the spatial diversity of agriculture, cities, transportation, and other aspects of the human landscape are linked to physical processes and geographic patterns of weather and climate, water, soils, landforms, natural disasters, vegetation, and animals. The course provides a survey of the basic processes that determine energy flows through the atmosphere, and examines the subsequent interactions among water, rock, soil, vegetation, and landforms that create and modify the Earth’s surface. Students will be introduced to how major transformations in our physical environment such as climate change, species loss, and water distribution can be traced to human activities.

GE Objectives: GEOG 101 addresses the following GE Student Learning Outcomes. It is intended for those students with no previous college-level physical science coursework.

- Critical Thinking
- Mathematical Reasoning
- Active Inquiry
- Sustainability

The following specific goals will be achieved as they pertain to this course:

- Use and think about maps and spatial data of physical environmental phenomena.
- Understand and interpret the implications of associations among physical phenomena in places.
- Recognize and interpret at different scales the relationships among physical patterns and processes.
- Become familiarized with the tools used to view, interpret processes, and recognize change occurring in our physical geographic environment.
- Develop an understanding of earth’s physical landforms, and the processes controlling variations in
  Weather and climate, soils, and plant communities around the world.
- Provide a foundation upon which to build a better understanding of the human interrelationships with the physical environment.
- Learn to think critically about the geographic environment by examining the effect of the
  Environment on humans and human impact on the physical geographic environment.

Organization: This course is divided into four segments:

1. Energy-atmosphere system;
2. Water, weather, and climate systems;
3. Soils, ecosystems and biomes;
4. Earth surface/atmosphere interface.

These course segments introduce students to fundamentals (energy and matter), processes, interactions, scientific analysis methods and spatial patterns within the physical geographic environment, which are associated with the atmosphere, hydrosphere, lithosphere, and biosphere.

Requirements: Students are responsible for all class materials and should be prepared for lectures by reading the assigned textbook chapters before class and laboratory assignments. At the instructor’s discretion, attendance points will be given out to those present in class. These points will be added to each student’s total.

Text
Grading

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Lecture Description | Chapters | Task | WEEK
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Lecture 1: Geographic Grid and Earth Motions | Chapters 1 and 2 |  | Jan 28 - Feb 1
Lecture 2: Earth-Sun System: | Chapters 3 |  | Feb 4 - 8
Lecture 3: Radiation and Heat Systems | Chapters 4 |  | Feb 11 - 15
Lecture 4: Air and Ocean Circulation | Chapter 5 | Exam Tues | Feb 18 - 22
Lecture 5: Moisture and Precipitation | Chapter 6 |  | Feb 25 - March 1
Lecture 6: Global Climate | Chapter 7 |  | March 4 - 8
Lecture 7: Climate Change | Chapter 8 |  | March 11 - 15
SPRING BREAK | |  | March 18 - 22
Lecture 8: Water Balance | Chapter 14 | Exam Tues | March 25 - 29
Lecture 9 Water Balance | Chapter 16 |  | April 1 - 5
Lecture 10: Earth Materials and Plate Tectonics | Chapter 17, 18, and 19 |  | April 8 - 12
Lecture 11: Fluvial Systems | Chapter 15 and 21 |  | April 15 - 19
Lecture 12: Biogeography | Chapter 10 | Exam Tues | April 22 - 26
Lecture 13: Soils and their Analysis | Chapter 12 & 13 |  | April 29 - May 3
Lecture 14: Humans as Geographic Agents | Chapter 11 |  | May 6 - 10
Lecture 15: Salton Sea |  |  | May 13 - 17
Final Exam | Thursday 12:00 | Final Exam | May 23