

Course Outline

COURSE: GEOG 1 **DIVISION:** 10 **ALSO LISTED AS:**

TERM EFFECTIVE: Fall 2021 **CURRICULUM APPROVAL DATE:** 03/8/2021

SHORT TITLE: PHYSICAL GEOG L/L

LONG TITLE: Physical Geography

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
3	18	Lecture:	2	36
		Lab:	3	54
		Other:	0	0
		Total:	5	90

COURSE DESCRIPTION:

An introductory study of the basic physical elements of geography including climate, land forms, soils, water, and natural vegetation, The laboratory will include the tools and methods of geographers. (C-ID: GEOG 115)

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: D - Credit - Degree Applicable

GRADING MODES

L - Standard Letter Grade

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

- 02 - Lecture and/or discussion
- 03 - Lecture/Laboratory
- 04 - Laboratory/Studio/Activity
- 047 - Laboratory - LEH 0.7
- 05 - Hybrid
- 71 - Dist. Ed Internet Simultaneous
- 72 - Dist. Ed Internet Delayed
- 73 - Dist. Ed Internet Delayed LAB
- 737 - Dist. Ed Internet LAB-LEH 0.7

STUDENT LEARNING OUTCOMES:

By the end of this course, a student should:

1. Demonstrate a practical knowledge of basic skills with maps and the geographic grid.
2. Identify, describe, compare & contrast global heat energy flow & temperature within the atmosphere.
3. Identify, describe, compare & contrast atmospheric moisture & circulation.
4. Identify & describe the basic elements & controls for weather phenomena.
5. Identify, compare & contrast global climate & vegetation zones.
6. Identify & describe the hydrologic cycle.
7. Identify, describe, compare & contrast plate tectonic, volcanic &, earthquake processes.
8. Identify, describe, compare & contrast river, coastal, desert & glacial processes & landforms.

COURSE OBJECTIVES:

By the end of this course, a student should:

1. Use maps, graphs and Geographic Information Systems (GIS) to interpret data
2. Relate climate patterns and soils to the Earth's ecosystems.
3. Explain the causes of season, climate patterns, and major landforms.
4. Describe the function and composition of the atmosphere, and how it affects our daily lives.
5. Discuss the hydrologic cycle, and the distribution and allocation of water resources for humans.
6. Describe the structure of the solid earth and relate it to such phenomena as earthquakes, mountain ranges and volcanoes.
7. Discuss the potentials and limitations of scientific innovations to mitigate natural hazards.
8. Evaluate the effects of the atmosphere and the hydrosphere on the lithosphere.
9. Assess activities through which humans have modified the environment.

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Curriculum Approval Date: 03/8/2021

LECTURE CONTENT:

Lecture Hours (36)

2 Hours

CONTENT: Global Systems and the Geographic Grid

Students will identify describe, contrast and

compare the interrelationships within the 4 Earth Systems of Atmosphere, Hydrosphere, Lithosphere and Biosphere.

Students will identify and describe how the planetary motions relate to Time Zones and seasonal change.

2 Hours

CONTENT: Global Heat Budget

Students will identify, compare and contrast how solar insolation circulates within the atmosphere.

2 Hours

CONTENT: Energy Flow and Temperature

Students will identify, describe and compare heat energy flow and air temperature controls within the atmosphere.

2 Hours

CONTENT: Atmospheric Circulation

Students will identify and describe how heat energy flow controls Global Air Pressure and Wind Belts
Students will compare and contrast how these forces affect atmospheric circulation.

2 Hours

CONTENT: Atmospheric Moisture

Students will identify, describe and demonstrate how air pressure, temperature and humidity control atmospheric moisture and weather systems.

4 Hours

CONTENT: Weather Systems

Students will identify, describe and contrast the development of hurricanes, tornadoes, thunderstorms and weather fronts.

2 Hours

CONTENT: Climate Classification and Vegetation Zones

Students will identify, compare and contrast the different global climates and how they affect the distribution of soils and vegetation zones.

2 Hours

CONTENT: Plate Tectonics

Students will identify, describe, compare and contrast the basic elements of Plate Tectonic Theory.
Students will demonstrate an understanding of how the theory is used to understand the global distribution of earthquakes and volcanism

2 Hours

CONTENT: Plate Tectonics

Students will identify and describe how plate tectonics controls landform development. Students will compare and contrast the different types of plate boundaries.

2 Hours

CONTENT: Faulting

Students will identify, describe, compare and contrast the basic elements of faulting and earthquake activity.
Students will demonstrate an understanding of the general pattern of global seismicity as it relates to plate tectonics.

2 Hours

CONTENT: Faulting Landforms and Volcanism

Students will identify and describe landforms developed from faulting. Students will identify, describe, contrast and compare volcanic processes, types of volcanoes and eruptions.

2 Hours

CONTENT: Hydrologic Cycle and Groundwater

Students will identify and describe the Hydrologic Cycle as it relates to surface and groundwater movement.

2 Hours

CONTENT: River Systems and Processes

Students will identify, contrast and compare the various elements of river systems, drainage basins and groundwater

movement. Students will describe the processes of erosion and sediment transport by running water and the landforms created by it.

2 Hours

CONTENT: Desert Landforms and Processes

Students will identify, contrast and compare the different types of deserts. Students will describe the development of desert landforms by the forces of wind and

water erosion and deposition.

2 Hours

CONTENT: Coastlines and Coastal Processes

Students will identify and describe the basic

types of coastlines and the processes of erosion and sediment transport by waves. Students will identify, compare and contrast erosional and depositional coastal landforms.

2 Hours

CONTENT: Glacial Landforms and Processes

Students will identify and describe the different types of glaciers. Students will compare and contrast the glacial processes and how they produce erosional and depositional glacial landforms. Students will identify and describe the triggers for global ice ages.

2 Hours

Final Exam

LAB CONTENT:

Lab hours (54)

Lab 1: Geographic Grid, Time Zones (6 hours)

Lab 2: Energy Flow and Air Temperature (6 hours)

Lab 3: Atmospheric Moisture, Weather Systems, Climate (9 hours)

Lab 4: Plate Tectonics (6 hours)

Lab 5: Earthquakes, Faulting, Vulcanism (9 hours)

Lab 6: Hydraulic Cycle (3 hours)

Lab 7: River Systems (3 hours)

Lab 8: Desert (6 hours)

Lab 9: Coastal Processes and Landforms (3 hours)

Lab 10: Glacial Landforms (3 hours)

METHODS OF INSTRUCTION:

Lecture/Discussion. Laboratory Exercises.

OUT OF CLASS ASSIGNMENTS:

Required Outside Hours 50

Assignment Description

Completing assigned reading from text or other documents.

Required Outside Hours 22

Assignment Description

Written papers and problem solving exercises.

METHODS OF EVALUATION:

Writing assignments

Evaluation Percent 40

Evaluation Description

Percent range of total grade: 40 % to 60 % Written Homework

Problem-solving assignments

Evaluation Percent 40

Evaluation Description

Percent range of total grade: 40 % to 60 % Homework Problems

Objective examinations

Evaluation Percent 20

Evaluation Description

May include multiple choice, short answer, essay, or oral demonstration.

REPRESENTATIVE TEXTBOOKS:

McKnight's Physical Geography: A Landscape Appreciation, 13th edition, Hess, Darrel and Tasa, Dennis., Pearson, 2021.

ISBN: 9780135827147

Rationale: Or other college level text.

13+ Grade Verified by:

Physical Geography Laboratory Manual, 13th edition, Hess, Darrel, Pearson, 2021.

ISBN: 9780135923900

Rationale: This is an e-text lab manual to accompany McKnight's Physical Geography: A Landscape Appreciation, 13th edition

12+ Grade Verified by: Nicholas Park

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:

GAV B1, effective 201070

GAV B3, effective 201070

CSU GE:

CSU B1, effective 201070

CSU B3, effective 201070

IGETC:

IGETC 5A, effective 201070

IGETC 5C, effective 201070

CSU TRANSFER:

Transferable CSU, effective 201070

UC TRANSFER:

Transferable UC, effective 201070

SUPPLEMENTAL DATA:

Basic Skills: N

Classification: Y

Noncredit Category: Y

Cooperative Education:

Program Status: 1 Program Applicable

Special Class Status: N

CAN: GEOG6

CAN Sequence: XXXXXXXX

CSU Crosswalk Course Department: GEOG

CSU Crosswalk Course Number: 115

Prior to College Level: Y

Non Credit Enhanced Funding: N

Funding Agency Code: Y

In-Service: N

Occupational Course: E

Maximum Hours:

Minimum Hours:

Course Control Number: CCC000272684

Sports/Physical Education Course: N

Taxonomy of Program: 220600