GEOG A197: DESERT FIELD STUDIES IN GEOGRAPHY

Item	Value
Curriculum Committee Approval Date	12/08/2021
Top Code	220600 - Geography
Units	2 Total Units
Hours	54 Total Hours (Lecture Hours 27; Lab Hours 27)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)

Course Description

Field studies of the geography of selected desert regions. Physical and cultural processes, characteristics and landscapes will be observed and analyzed. Specific content will vary by geographic region. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Student will identify, analyze and interpret spatial information for desert regions.
2. Student will understand the spatial distributions, processes and controls of desert features from the global to local scale.

Course Objectives

- 1. Read topographic, thematic and reference maps of the desert region
- 2. Use GPS units for navigation and data collection and use GIS to map field data
- 3. Collect and document physical and cultural field data - Humidity, temperature, soil, vegetation, geology - Ethnicity, land use, settlement patterns
- 4. Relate observations to cultural and /or physical processes
- 5. Identify cultural and physical geographic landscapes

Lecture Content

Specific content will vary by geographic region. I. Orientation A. Transportation B. Lodging C. General introduction to the region II. Map Reading and Interpretation A. Identify locations using the geographic grid B. Identify physical and cultural features using map symbols C. Identify landforms using contour lines on a topographic quadrangle D. Plot locations using GPS and GIS applications III. Data Collection A. Physical Data 1. Collecting temperature using Fahrenheit or Celsius 2. Calculating humidity with the sling psychomotor 3. Collecting soil samples 4. Identifying flora and fauna B. Cultural Data 1. Research historical human settlement patterns 2. Identify regional architecture and its influences 3. Identify ethnic influences in the landscape – architecture, language, religion, food, and clothing 4. Identify primary, secondary and tertiary land uses and economic activities C. Field Observations and Documentation 1. Bibliographic information 2. Notation 3 3. Photographs 4. Mapping 5. Journals IV. The Physical Environment A. Regional Weather and Climate 1. Latitude and Seasons 2. Coastal vs. Continental location 3. Altitude – windward vs. leeward 4. Prevailing winds and frontal systems 5. Precipitation processes 6. Climate types and controls B. Regional Vegetation and Soils 1. Adaptation of vegetation to regional climate/s and soil types 2. Influence of parent material and weathering in soil C. Regional Geomorphology 1. Classification of landform types 2. Processes of landform development including tectonics, diastrophism, weathering, fluvial, aeolian, and glacial. D. Current Environmental Issues in the Region V. The Cultural Environment A. Historical Settlement in the Region 1. Migration 2. Indigenous groups 3. Rural and urban settlement patterns and growth B. Ethnicity in the Region 1. Origin of migrants 2. Push and pull factors 3. Cultural characteristics including language, religion, food, architecture and other customs C. Land Use and Economic Activity in the Region 1. Role of physical environment in agriculture and extraction 2. Relative location and economic development D. Current Cultural Issues in the Region VI. Evaluation and Analysis A. Integration of environmental and cultural characteristics B. Analysis of data collected

Lab Content

I. Orientation A. Transportation B. Lodging C. General introduction to the region II. Map Reading and Interpretation A. Identify locations using the geographic grid B. Identify physical and cultural features using map symbols C. Identify landforms using contour lines on a topographic quadrangle D. Plot locations using GPS III. Data Collection A. Physical Data 1. Collecting temperature using Fahrenheit or Celsius 2. Calculating humidity with the sling psychomotor 2. Calculating humidity with the sling psychomotor 3. Collecting soil samples 4. Identifying flora and fauna B. Cultural Data 1. Research historical human settlement patterns 2. Identify regional architecture and its influences 3. Identify ethnic influences in the landscape – architecture, language, religion, food, dress 4. Identify primary, secondary and tertiary land uses C. Documentation 1. Bibliographic information 2. Notation 3. Photographs 4. Mapping IV. The Physical Environment A. Regional Weather and Climate 1. Latitude and Seasons 2. Coastal vs. Continental location 3. Altitude – windward vs. leeward 4. Prevailing winds and frontal systems B. Regional Vegetation and Soils 1. Adaptation of vegetation to regional climate/s and soil types 2. Influence of parent material and weathering in soil C. Regional Geomorphology 1. Classification of landform types 2. Processes of landform development including tectonics, diastrophism, weathering, fluvial, a eolian, and glacial. D. Current Environmental Issues in the Region V. The Cultural Environment A. Historical Settlement in the Region 1. Migration 2. Rural and urban settlement patterns and growth B. Ethnicity in the Region 1. Origin of migrants 2. Cultural characteristics including language, religion, food, architecture and other customs C. Land Use in the Region 1. Role of physical environment in agriculture and extraction 2. Relative location and economic development D. Current Cultural Issues in the Region VI. Evaluation and Analysis A. Integration of environmental and cultural characteristics

Method(s) of Instruction

- Lecture (02)
- Lab (04)
- Field Experience (90)

Instructional Techniques

1. Reading college level textbook, books and journal articles relevant to the geographic region 2. Class discussions 3. Student research

presentations 4. Field observations and collection of data 5. Field analysis

Reading Assignments

Reading college level textbook, books and journal articles relevant to the geographic region (18 hours total)

Writing Assignments

Stduents will spend 18 hours on: field journals documenting their observations and experiences research papers on one aspect of the region visited preparation of research presentations

Out-of-class Assignments

Field observations and collection of data (18 hours total)

Demonstration of Critical Thinking

Field journal - connection observations to geographic processes and concepts

Required Writing, Problem Solving, Skills Demonstration

Field exercises to demonstrate skills Presentation on a selected region, processes or field site Field journal and final report

Eligible Disciplines

Geography: Masters degree in geography OR bachelors degree in geography AND masters degree in geology, history, meteorology, or oceanography OR the equivalent OR see interdisciplinary studies. Masters degree required.

Textbooks Resources

1. Required Hess, D. McKnight, T.. Physical Geography, A Landscape Appreciation, 4th ed. Upper Saddle River, NJ: Pearson, 2016

Manuals Resources

1. Hess, D.. Physical Geography Laboratory Manual for McKnights Physical Geography: A Landscape Appreciation, Pearson , 08-01-2016

Other Resources

1. Cadillac Desert: The American West and Its Disappearing Water; New and Revised Edition Paperback – 1993 by Marc Reisner