

GEOG R198A: GEOGRAPHIC FIELD INTERPRETATION

Originator

jdanza

College

Oxnard College

Discipline (CB01A)

GEOG - Geography

Course Number (CB01B)

R198A

Course Title (CB02)

Geographic Field Interpretation

Banner/Short Title

Geographic Field Interpret

Credit Type

Credit

Start Term

Fall 2021

Catalog Course Description

This course will apply lecture course material in the field through observations and interpretation of the landscape. Geographic regions will be surveyed to include identification of geomorphic features, biomes and ecotones, and climate variations. Field techniques include basic rock and vegetation identification, mapping, stream flow quantity and quality, and population density. Human impacts will be assessed. Notes: Course does not replace Geog 101L content.

Taxonomy of Programs (TOP) Code (CB03)

2206.00 - Geography

Course Credit Status (CB04)

D (Credit - Degree Applicable)

Course Transfer Status (CB05) (select one only)

B (Transferable to CSU only)

Course Basic Skills Status (CB08)

N - The Course is Not a Basic Skills Course

SAM Priority Code (CB09)

E - Non-Occupational

Course Cooperative Work Experience Education Status (CB10)

N - Is Not Part of a Cooperative Work Experience Education Program

Course Classification Status (CB11)

Y - Credit Course

Educational Assistance Class Instruction (Approved Special Class) (CB13)

N - The Course is Not an Approved Special Class

Course Prior to Transfer Level (CB21)

Y - Not Applicable

Course Noncredit Category (CB22)

Y - Credit Course

Funding Agency Category (CB23)

Y - Not Applicable (Funding Not Used)

Course Program Status (CB24)

1 - Program Applicable

General Education Status (CB25)

Y - Not Applicable

Support Course Status (CB26)

N - Course is not a support course

Field trips

Will be required

Faculty notes on field trips; include possible destinations or other pertinent information

Multi-day field camping trip required at data collection site. Location: Eastern Sierra Nevada.

Grading method

Letter Graded

Does this course require an instructional materials fee?

No

Repeatable for Credit

No

Is this course part of a family?

No

Units and Hours**Carnegie Unit Override**

No

In-Class**Lecture****Minimum Contact/In-Class Lecture Hours**

17.5

Maximum Contact/In-Class Lecture Hours

70

Activity**Laboratory****Minimum Contact/In-Class Laboratory Hours**

52.5

Maximum Contact/In-Class Laboratory Hours

210

Total in-Class**Total in-Class****Total Minimum Contact/In-Class Hours**

17.5

Total Maximum Contact/In-Class Hours

280

Outside-of-Class

Internship/Cooperative Work Experience

Paid

Unpaid

Total Outside-of-Class

Total Outside-of-Class

Minimum Outside-of-Class Hours

35

Maximum Outside-of-Class Hours

140

Total Student Learning

Total Student Learning

Total Minimum Student Learning Hours

52.5

Total Maximum Student Learning Hours

420

Minimum Units (CB07)

1

Maximum Units (CB06)

4

Prerequisites

GEOG R101

Entrance Skills

Entrance Skills

Utilize maps to describe characteristics of a landscape including distribution pattern of physical landscapes and environmental components.

Prerequisite Course Objectives

GEOG R101-Utilize the methods of scientific investigation in analyzing spatial relationships of physical landscapes and how they relate to human environments.

GEOG R101-Describe and explain world distribution patterns of principal environmental components including air temperature, air pressure, wind, precipitation, climate, soil, vegetation, animals and landforms.

GEOG R101-Identify the characteristics and distribution of ecosystems.

GEOG R101-Utilize maps to illustrate how environmental hazards such as earthquakes and hurricanes can alter landscapes.

Entrance Skills

Survey and analyze geomorphic processes that create a landscape.

Prerequisite Course Objectives

GEOG R101-Demonstrate an understanding of the four major physical components of the natural environment: atmosphere, lithosphere, hydrosphere, and biosphere.

GEOG R101-Analyze and interpret the global distribution of climate types following the Köppen climate classification system, including the general location, characteristics and controls of each major climate type.

GEOG R101-Utilize the methods of scientific investigation in analyzing spatial relationships of physical landscapes and how they relate to human environments.

GEOG R101-Recognize that all landforms are the result of the interaction of internal tectonic forces and external geomorphic processes.

Requisite Justification**Requisite Type**

Prerequisite

Requisite

GEOG R101

Requisite Description

Course in a sequence

Level of Scrutiny/Justification

Content review

Student Learning Outcomes (CSLOs)**Upon satisfactory completion of the course, students will be able to:**

- | | |
|---|---|
| 1 | Measure weather parameters at various locations to apply climatic principles to a region with climate variations. |
| 2 | Analyze geomorphologic (surface) features based on visual examination of field testing of geomorphic features. |
| 3 | Calculate stream flow rate using a flow meter. |
| 4 | Survey geomorphic and biological information and draw a map with all necessary cartographic features. |
| 5 | Identify and describe human impacts on various landscapes and potential mitigations. |

Course Objectives**Upon satisfactory completion of the course, students will be able to:**

- | | |
|---|---|
| 1 | Interpret various geographical regions to identify geomorphic zones, ecological zones, hydrographic and climate regimes |
| 2 | Use basic tools of geology and ecology |
| 3 | Observe, record and analyze data collected in the field |
| 4 | Map natural features to include all map elements |
| 5 | Assess human impacts based on monitoring results |
| 6 | Identify possible mitigation measures to prevent and restore the natural environment |

Course Content**Lecture/Course Content**

- Survey and interpret geographic regions. Describe geologic features of a location in the context of regional geologic influences
- Identify and interpret geomorphic features, which may consist of: mountain, fluvial, glacial, coastal, karst and arid geomorphology
- Identify biomes and ecotones, and climate variations of regions and the transition zone, such as mountains to deserts
- Describe natural features and influences that shape the land and ecosystems
- Apply geographic field techniques
 - Basic rock identification
 - Vegetation identification of representative species
 - Identify biomes and related geographic parameters
 - Record and measure streams flow characteristics
 - Measure stream flow using a flow meter and basic math concepts
 - Measure water quality using basic parameters of temperature and other measures
- Calculate population density
- Identify vegetation types
- Calculate desinty in an area
- Map natural features

- a. Interpret maps
 - b. Basic map design
 - c. Field mapping techniques
10. Assess weather and climate systems at micro and regional scale
 11. Assess human impacts
 12. Identify physiological or ecological damage on site
 13. Identify possible mitigation measures to prevent and restore the natural environment

Laboratory or Activity Content

1. Survey and interpret geographic regions. Describe geologic features of a location in the context of regional geologic influences
2. Identify and interpret geomorphic features, which may consist of: mountain, fluvial, glacial, coastal, karst and arid geomorphology
3. Identify biomes and ecotones, and climate variations of regions and the transition zone, such as mountains to deserts
4. Describe natural features and influences that shape the land and ecosystems
5. Apply geographic field techniques
 - a. Basic rock identification
 - b. Vegetation identification of representative species
 - c. Identify biomes and related geographic parameters
 - d. Record and measure streams flow characteristics
 - e. Measure stream flow using a flow meter and basic math concepts
 - f. Measure water quality using basic parameters of temperature and other measures
6. Calculate population density
7. Identify vegetation types
8. Calculate desinty in an area
9. Map natural features
 - a. Interpret maps
 - b. Basic map design
 - c. Field mapping techniques
10. Assess weather and climate systems at micro and regional scale
11. Assess human impacts
12. Identify physiological or ecological damage on site
13. Identify possible mitigation measures to prevent and restore the natural environment

Methods of Evaluation

Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):

Problem solving exercises
 Skills demonstrations
 Written expression

Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):

Essay exams
 Essays
 Group projects
 Individual projects
 Journals
 Laboratory activities
 Laboratory reports
 Oral analysis/critiques
 Objective exams
 Oral presentations
 Problem-Solving Assignments
 Problem-solving exams
 Quizzes
 Reports/papers
 Research papers
 Skills demonstrations
 Skill tests
 Simulations

Instructional Methodology

Specify the methods of instruction that may be employed in this course

Computer-aided presentations
 Collaborative group work
 Class activities
 Class discussions
 Case studies
 Distance Education
 Demonstrations
 Field experience/internship
 Field trips
 Group discussions
 Guest speakers
 Instructor-guided interpretation and analysis
 Instructor-guided use of technology
 Internet research
 Laboratory activities
 Lecture
 Practica

Describe specific examples of the methods the instructor will use:

1. In-class instruction with introduction and explanation of the field activity on how to use environmental monitoring instruments.
2. A hands-on demonstration of the various weather instruments that are used to collect data, such as the sling psychrometer, which measures relative humidity, and the "Kestrel 4500" complete weather tracker and environmental meter.
3. In-class viewing of PowerPoint overview of the geomorphic story of the region to be investigated.
4. Scheduled multi-day field trip to perform survey of a region to determine geography processes.
5. Instructor-led demonstration of proper use of field equipment.

Representative Course Assignments

Writing Assignments

1. Take precise field measurements and notes for later use in a written report.
2. Write reports and summaries of observations and interpretations.
3. Answer word and paragraph questions in lab manual.

Critical Thinking Assignments

1. In small groups, discuss explanations of the geomorphic processes that formed the observed landscape.
2. Critique data collection methods in various environments to ensure quality assurance and control.
3. After analyzing a data set, suggest possible explanations for the results.

Reading Assignments

1. Read pertinent chapters from lecture textbook.
2. Read journal articles regarding the region and related geomorphic and ecological processes.
3. Internet search of trusted sources of information for the region being investigated.
4. Read lab manual sections, provided notes, maps, and diagrams.

Skills Demonstrations

1. Students will interpret topographic maps while in a region to provide an analysis of the landscape.
2. Students will perform calibration of various monitoring probes.
3. Students will demonstrate competence in field equipment techniques including setup, measurement and precision of various parameters.
4. Students will demonstrate how to read results from various field instruments, record data, and provide a visual analysis or graphic display of data.

Other assignments (if applicable)

1. Study notes in preparation for exams.

Outside Assignments

Representative Outside Assignments

1. Write a report on the results of field data collection and analysis.
2. Answer word and paragraph questions in lab manual.
3. Read pertinent chapters from lecture textbook.
4. Read journal articles regarding the region and related geomorphic and ecological processes.
5. Internet search of trusted sources of information for the region being investigated.
6. Read lab manual sections, provided notes, maps, and diagrams.

District General Education

A. Natural Sciences

B. Social and Behavioral Sciences

C. Humanities

D. Language and Rationality

E. Health and Physical Education/Kinesiology

F. Ethnic Studies/Gender Studies

CSU GE-Breadth

Area A: English Language Communication and Critical Thinking

Area B: Scientific Inquiry and Quantitative Reasoning

Area C: Arts and Humanities

Area D: Social Sciences

Area E: Lifelong Learning and Self-Development

CSU Graduation Requirement in U.S. History, Constitution and American Ideals:

IGETC

Area 1: English Communication

Area 2A: Mathematical Concepts & Quantitative Reasoning

Area 3: Arts and Humanities

Area 4: Social and Behavioral Sciences

Area 5: Physical and Biological Sciences

Area 6: Languages Other than English (LOTE)

Textbooks and Lab Manuals

Resource Type

Textbook

Description

Hill, M. (2006). *Geology of the Sierra Nevada* (2). University of California Press, Oakland, CA. 0520236967

Resource Type

Manual

Description

Christopherson, R.W. & Thomsen, C.E. (2017). *Applied Physical Geography*. Prentice Hall, Upper Saddle River, New Jersey.

Distance Education Addendum**Definitions****Distance Education Modalities**

Hybrid (51%–99% online)

Hybrid (1%–50% online)

100% online

Faculty Certifications

Faculty assigned to teach Hybrid or Fully Online sections of this course will receive training in how to satisfy the Federal and state regulations governing regular effective/substantive contact for distance education. The training will include common elements in the district-supported learning management system (LMS), online teaching methods, regular effective/substantive contact, and best practices.

Yes

Faculty assigned to teach Hybrid or Fully Online sections of this course will meet with the EAC Alternate Media Specialist to ensure that the course content meets the required Federal and state accessibility standards for access by students with disabilities. Common areas for discussion include accessibility of PDF files, images, captioning of videos, Power Point presentations, math and scientific notation, and ensuring the use of style mark-up in Word documents.

Yes

Regular Effective/Substantive Contact**Hybrid (1%–50% online) Modality:**

Method of Instruction	Document typical activities or assignments for each method of instruction
Synchronous Dialog (e.g., online chat)	Students will observe a laboratory experiment performed by the instructor and complete the steps of the scientific method.
Asynchronous Dialog (e.g., discussion board)	Students post their results on a discussion board regarding their activity in the workbook for comparison and further discussion with other students.
Other DE (e.g., recorded lectures)	Students will watch a video recorded by the instructor showing the lab experiment and students complete the lab written report.

Hybrid (51%–99% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Synchronous Dialog (e.g., online chat)	Students will observe a laboratory experiment performed by the instructor and complete the steps of the scientific method.
Asynchronous Dialog (e.g., discussion board)	Students post their results on a discussion board regarding their activity in the workbook for comparison and further discussion with other students.
Other DE (e.g., recorded lectures)	Students will watch a video recorded by the instructor showing the lab experiment and students complete the lab written report.

100% online Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Synchronous Dialog (e.g., online chat)	Students will observe a laboratory experiment performed by the instructor and complete the steps of the scientific method.

Asynchronous Dialog (e.g., discussion board)

Students post their results on a discussion board regarding their activity in the workbook for comparison and further discussion with other students.

Other DE (e.g., recorded lectures)

Students will watch a video recorded by the instructor showing the lab experiment and students complete the lab written report.

Examinations

Hybrid (1%–50% online) Modality

Online
On campus

Hybrid (51%–99% online) Modality

Online
On campus

Primary Minimum Qualification

GEOGRAPHY

Review and Approval Dates

Department Chair

09/02/2020

Dean

09/02/2020

Technical Review

09/09/2020

Curriculum Committee

09/09/2020

Curriculum Committee

11/25/2020

CCCCO

MM/DD/YYYY

Control Number

CCC000587945

DOE/accreditation approval date

MM/DD/YYYY