COURSE OUTLINE : GEOG 111
D Credit – Degree Applicable
COURSE ID 004084
Cyclical Review: February 2020

COURSE DISCIPLINE : GEOG

COURSE NUMBER : 111

COURSE TITLE (FULL) : Physical Geography Laboratory

COURSE TITLE (SHORT) : Physical Geography Lab

CALIFORNIA STATE UNIVERSITY SYSTEM C-ID : GEOG 111 - Physical Geography, Laboratory

CATALOG DESCRIPTION

GEOG 111 is the laboratory course for Physical Geography. Laboratory exercises include the observation and interpretation of weather data, statistical analysis of climate data, development of cartographic techniques, map interpretation, aerial photography interpretation, and landform description and analysis. Local field trips are required.

Total Lecture Units: 0.00

Total Laboratory Units: 1.00

Total Course Units: 1.00

Total Lecture Hours: 0.00

Total Laboratory Hours: 54.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 54.00

Total Out-of-Class Hours: 0.00

Prerequisite or Corequisite: GEOG 101. Recommended Preparation: MATH 15.

ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1	MATH	15	Foundations of Algebra	Add, subtract, multiply, and divide real numbers;	Yes
2	MATH	15	Foundations of Algebra	convert between percents, decimals and fractions;	Yes
3	MATH	15	Foundations of Algebra	solve introductory linear equations and inequalities;	Yes
4	MATH	15	Foundations of Algebra	simplify introductory exponential expressions;	Yes
5	MATH	15	Foundations of Algebra	add, subtract, multiply and divide polynomials;	Yes
6	MATH	15	Foundations of Algebra	graph introductory linear equations and inequalities;	Yes
7	MATH	15	Foundations of Algebra	find the equation of a line;	Yes
8	MATH	15	Foundations of Algebra	solve linear systems using graphing, substitution and elimination methods;	Yes
9	MATH	15	Foundations of Algebra	use algebra to solve applied problems;	Yes
10	MATH	15	Foundations of Algebra	factor polynomials;	Yes
11	MATH	15	Foundations of Algebra	demonstrate knowledge of test-taking strategies and study skills.	Yes
12	GEOG	101	Physical Geography	Identify the importance of solar energy to the earth system and its resulting effects on weather, climate, hydrology, and other external earth processes;	Yes
13	GEOG	101	Physical Geography	assess the complex interactions between the atmosphere, hydrosphere, biosphere, and lithosphere;	Yes
14	GEOG	101	Physical Geography	describe the interaction between human activities and these earth spheres.	Yes
15	GEOG	101	Physical Geography	explain the earth’s place in space and the complex interactions between the earth and sun;	Yes
16	GEOG	101	Physical Geography	evaluate the functions of the atmosphere, hydrosphere, biosphere, and lithosphere including internal and external earth processes and their impact on landforms.	Yes

EXIT STANDARDS

1 lab activities related to the size, shape, and movements of the Earth in space and their importance to environmental patterns and processes;
2 lab activities related to the atmospheric, geomorphological, and biotic processes that shape the Earth's surface environments;
3 lab activities related to the global distribution of the world's major climates, ecosystems, and physiographic (landform) features;
4 lab activities related to the scientific method, scientific measurement, and practical experience using the tools and concepts of physical geography; and
5 lab and field-based lab activities related to the collection, analysis and interpretation of geographic data and the creation of geographic tables, graphs and maps.

STUDENT LEARNING OUTCOMES

1 earth geometry and motions in space and their importance to environmental patterns and processes;
2 the atmospheric, geomorphological, and biotic processes that shape the Earth's surface environments;
3 the global distribution of the world's major climates, ecosystems, and physiographic (landform) features;
4 the scientific method, scientific measurement, and practical experience using the tools and concepts of physical geography; and
5 the collection, interpretation, analysis of geographic data and the creation of basic geographic tables, graphs and maps.

COURSE CONTENT WITH INSTRUCTIONAL HOURS

	Description	Lecture	Lab	Total Hours
1	Earth measurements, representation and motions • Scientific methods, measurements, graphs, charts and basic conversions • Atlases, globes and maps • Latitude, longitude, and time zones • Earth-sun relationships and seasonality	0	13	13

2	The Atmosphere • Temperature, radiation and related weather instruments • Air pressure, winds, and related weather instruments • Humidity and related weather instruments • Weather measurement, weather maps and interpretation • Climate data interpretation and climate regions	0	13	13
3	Natural Vegetation and Biomes	0	4	4
4	The Hydrosphere	0	4	4
5	The Lithosphere • Rock, sediment and soil classification • Landform identification • Plate tectonics • Vulcanism, folding, and faulting	0	7	7
6	Map Reading and Map Making Skills • Compass and Global Positioning System (GPS) • Map interpretation including geologic, topographic, and land-use maps • Interpreting data from 3-dimensional maps and aerial photographs • Terrain profiling and creating contour maps	0	7	7
7	Field techniques: Observations, measurement, analysis and presentation	0	6	6
				54

OUT OF CLASS ASSIGNMENTS

1 creating content in preparation for in-class group presentations;
2 data collection for required reports (e.g., collecting weekly weather data);
3 research and writing assignment addressing a topic relative to the course content;
4 online laboratory lesson completed with Moodle or other approved LMS.

METHODS OF EVALUATION

1 laboratory exercises (e.g., humidity lab);
2 written research reports (e.g., weather data manual);
3 quizzes (e.g., unit quiz);
4 mid-term exams;
5 final exam.

METHODS OF INSTRUCTION

- [x] Lecture
- [x] Laboratory
- [ ] Studio
- [x] Discussion
- [x] Multimedia
- [ ] Tutorial
- [ ] Independent Study
- [ ] Collaboratory Learning
- [ ] Demonstration
- [x] Field Activities (Trips)
- [ ] Guest Speakers
- [x] Presentations

TEXTBOOKS

Title	Type	Publisher	Edition	Mediu	Author	IBSN	Date
Physical Geography Laboratory Manual	Required	Prentice Hall	12	print	Hess, Darrel	0134561015	2016