CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA ACADEMIC SENATE

GENERAL EDUCATION COMMITTEE

REPORT TO

THE ACADEMIC SENATE

GE-013-167

GEO 1010 - Physical Geography

General Education Committee Date: 05/10/2017

Executive Committee

Received and Forwarded Date: 05/10/2017

Academic Senate Date: 05/17/2017

First Reading

BACKGROUND:

This is a revisioned course for the semester calendar.

RESOURCES CONSULTED:

Faculty
Department Chairs
Associate Deans
Deans
Office of Academic Programs

DISCUSSION:

The GE Committee reviewed the attached ECO for this course and found it to satisfy the GE Student Learning Outcomes and other requirements for GE Area B1.

RECOMMENDATION:

The GE Committee recommends approval of GE-139-156, URP 4820 – California Water (See attached ECO).

GEO - 1010 - Physical Geography

C. Course - New General Education* Updated

Department*	Geography and Anthropology						
Semester Subject Area*	GEO	Semester 1010 Catalog Number*					
Quarter Subject Area	GEO	Quarter Catalog 101 Number					
Course Title* P	hysical Geography						
Units*	(3)						
C/S Classification *	C-01 (Large Lecti	ıre)					
		click: http://www.cpp.edu/~academic-progr					
	THE STOCK TO COMMENT OF THE ST	O/Appendix G GG Glassification.pdi					
Component* Lecture							
Instruction Mode*	Face-to-Face Fully Asynchronous						
	Hybrid w/Asynch	ronous Component Web-Assisted					
Grading Basis*	Graded Only						
Repeat Basis*	May be taken onl	/ once					
If it may be taken multiple times, limit on	1						
number of enrollments							
Cross Listed Course Subject Area and Catalog Nbr (if offered with another department)							

Choose appropriate type(s) of course(s)*	✓ Major Course✓ Service Course✓ GE Course✓ None of the above
General Education Area / Subarea*	B1

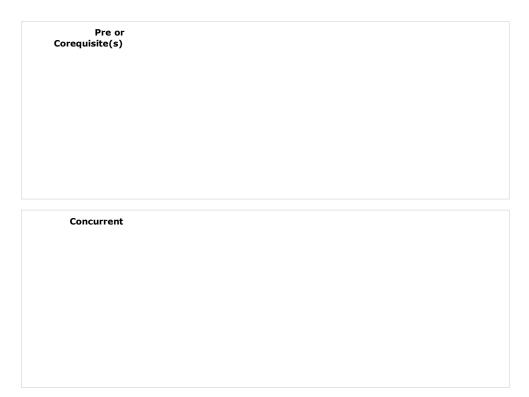
To view the General Education SubArea definitions, click http://www.cpp.edu/~academic-programs/scheduling/Documents/Ch.3-GeneralEducationProposals.pdf.

I. Catalog Description

Catalog Description Basic principles of physical geography. Significance of earth-related distribution patterns with reference to their effect on human activities. 3 lecture discussions. Meets GE requirement in Area B1.

II. Required Coursework and Background

Prerequisite(s)			
Corequisite(s)			



III. Expected Outcomes

List the knowledge, skills, or abilities which students should possess upon completing the course.*

The student will have the ability to:

- Understanding the breadth of physical geography and its related themes of systems and environment
- Appreciate the interconnectedness of natural processes occurring on Earth, both spatially and temporally
- Identify absolute and relative locations on the Earth's surface
- Use some of the quantitative tools and methods used to explore and model natural phenomena
- Comprehend major concepts related to systems and cycles of weather and climate, the solid earth, landform evolution, glaciations, and the biosphere
- Perform basic scientific writing and research skills
- Evaluate different approaches to physical geography study and methods of geographic observation.

If this is a course for the major, describe how these outcomes relate to the mission, goals and objectives of the major program.

The course helps students to obtain knowledge in the physical geography area (GEO SLO1); to be introduced to research, analysis and communication skills (GEO SLO2, SLO3).

Explain how the course meets the description of the GE SubArea(s). Please select appropriate outcomes according to the GE Area/SLO mapping.

This course meets GE Area B1 requirements by introducing scientific theories and concepts that govern the processes in the earth's atmosphere, lithosphere, hydrosphere, and biosphere. Through applications of scientific methods, students will learn to connect observable phenomena in their surrounding physical environment to the scientific principles and concepts in earth sciences and gain quantitative and qualitative analytical thinking skills. How GEO 1010 meets each of the GE area B1 requirements is detailed below.

Describe how these outcomes relate to the associated GE Learning Outcomes listed below.*

(GE SLO 1a, 1d) Identify and articulate major concepts related to the four spheres of the natural environment (atmosphere, lithosphere, hydrosphere, and biosphere) and their graphic based interactions.

(GE SLOs 1e, 2a) Use some of the quantitative tools and methods to explore, model, and draw conclusions on natural environmental phenomena

(GE SLOs 1a, 1d,1e) Identify and articulate absolute and relative locations on the Earth's surface and their significance associated with the physical environment and human activities

(GE SLOs 1a, 1d) Identify and articulate the interconnectedness of natural processes occurring on Earth, both spatially and temporally

(GE SLOs 1a, 2a) Perform basic scientific writing and research skills

General Education Outcomes*

Ia. Write effectively for various audiences

Id. Construct arguments based on sound evidence and reasoning to support an opinion or conclusion.

Ie. Apply and communicate quantitative arguments using equations and graphical representations of data.

IIa. Apply scientific methods and models to draw quantitative and qualitative conclusions about the physical and natural world.

To view the mapping, click https://www.cpp.edu/~academic-programs/Documents/GE%20SLO%20Mapping.pdf

IV. Instructional Materials

Provide bibliography that includes texts that may be used as the primary source for instruction, and other appropriate reference materials to be used in instruction. The reference list should be current, arranged alphabetically by author and the materials should be listed in accepted bibliographic form.

Instructional Materials*

- 1. R.W. Christopherson and M.L. Byrne. 2014. Geosystems: An Introduction to Physical Geography (Pearson Prentice Hall: New York)
- 2. James F. Petersen, Dorothy Sack, and Robert E. Gabler, 2012. Physical Geography (Brooks Cole: Florence, KY)
- 3. Darrel Hess. 2014. McKnight's Physical Geography: A Landscape Appreciation (Pearson Prentice Hall: New York)
- Alan Strahler. 2013. Introduction to Physical Geography (Wiley: New York)

Examples of primary climate data sources students will use in class:

Climate data through California Irrigation Management Information System (CIMIS) (http://www.cimis.water.ca.gov/)

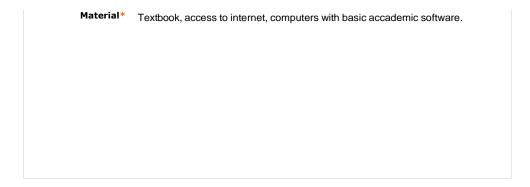
NOAA National Centers for Environmental Information (https://www.ncdc.noaa.gov/)

Faculty are encouraged to make all materials accessible. Indicate with an asterisk those items that have had accessibility (ATI/Section 508) reviewed. For more information, http://www.cpp.edu/~accessibility

V. Minimum Student Material

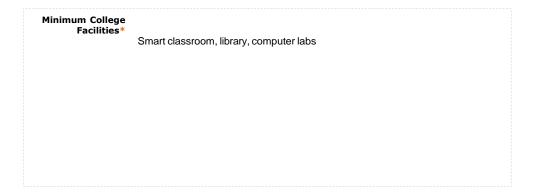
List any materials, supplies, equipment, etc., which students must provide, such as notebooks, computers, internet access, special clothing or uniforms, safety equipment, lockers, sports equipment, etc. Note that materials that require the assessment of a fee may not be included unless the fee has been approved according to University procedures.

Minimum Student



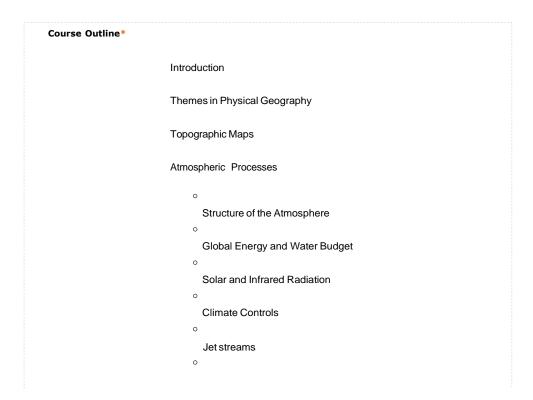
VI. Minimum College Facilities

List the university facilities/equipment that will be required in order to offer this class, such as gymnastic equipment, special classroom, technological equipment, laboratories, etc.



VII. Course Outline

Describe specifically what will be included in the course content. This should not be a repetition of the course description but an expansion that provides information on specific material to be included in the class, e.g. lecture topics, skills to be taught, etc. This should not be a week-by-week guide unless all instructors are expected to follow that schedule.



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Air Masses
      Weather
       Air Temperature
      Pressure
      Humidity
      Precipitation
Hydrospheric Processes
      Water budget
      storage
      runoff
      stream-flow
      drainage
Geomorphologic Processes
      Plate Tectonics and the Earth Energy System
      Folding, Faulting, Earthquakes and Volcanoes
      Lithosphere, Earth Materials (minerals, rocks,
      soils) and Structure
      Landforms
      Chemical weathering, mechanical weathering,
      mass wasting erosion
      Fluvial, glacial, coastal and Aeolian systems
Biogeographic Processes
      Biosphere, including Earth-Atmosphere
      processes (e.g.) transpiration
      Ecosystems—components, relationships,
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communities, succession

Environmental Issues

Global Climate Change

0

Local Pollution

VIII. Instructional Methods

Describe the type(s) of method(s) that are required or recommended for the instruction of this course (lectures, demonstrations, etc.). Include any method that is essential to the course, such as the use of particular tools or software.

Instructional Methods*

- 1. Lectures/discussions
- 2. Problem solving sessions
- 3. Group and individual assignments/Projects, include computer based exercises and field observations
- 4. Writing assignments and in class oral presentations
- 5. Videos and other supplemental materials. Guest speakers and non-classroom assignments, as appropriate.

IX. Evaluation of Outcomes

Describe the methods to be used to evaluate students' learning, i.e. written exams, term papers, projects, participation, quizzes, attendance, etc.*

Subjective and objective examinations aimed at assessing student's ability of identifying the basic physical elements and laws that govern the physical geography processes, describe the interactions between human activities and these processes in historical and contemporary contexts, compare and contrast different physical processes in different scales, interfaces, and geographic regions, and solve quantitative and qualitative problems.

Assignments (may including problem solving with math and physical equations, computer based exercises, and field observation) to assess student's problem solving abilities and data observation and collection skills.

Written assignments with feedback process during the semester focusing on assessing the student's ability in finding, evaluating, and using data to construct arguments on environmental issues based on data analysis or computer models and to draw a sound conclusion

student's oral communication skills and the ability to identify climatic processes and the underlying physical elements.

Describe the meaningful writing assignments to be included.*

Meaningful writing components: Students receive feedback from sequential assignments and lab reports with writing components that they can improve through the semester.

Discuss how these methods may be used to address the course and program outcomes, as appropriate. Include or attach a matrix to align the evaluation methods to the outcomes.

GEO Department Objective No

Activity	1	2	3	4
Written assignments	I	I		I
Class discussion	I	I	I	
Quizzes	I			
Midterm Exam		I		
Final Exam		I		

general education course, discuss	1a	1b	1d	1e	2a
how these lethods may be written assignments	I		I		I
the associated GE Learning Outcomes listed				I	
low. Include or attach a matrix Exams				I	I
to align the evaluation methods to the outcomes.* Problem Solving Assignments			I	I	I
Class discussion		I			
Oral presentations		I			

$\underline{X.This\ OPTIONAL\ Section\ is\ for\ describing\ Course/Department/College}$ specific requirements.

Department/	
College Required	
ECO Information	
(Optional)	