

**California State University, San Marcos General Education Program  
GENERAL EDUCATION NEW COURSE CERTIFICATION REQUEST**

**• AREA B1: Physical Science – No Lab Component**  
*See GE Handbook for information on each section of this form*

**ABSTRACT**

<b>Course Abbreviation and Number: GEOG 110</b>	<b>Course Title: Introduction to Physical Geography</b>	
<b>Number of Units: 3</b> _____		
<b>College or Program:</b> <input checked="" type="checkbox"/> CHABSS <input type="checkbox"/> CSM <input type="checkbox"/> CEHHS <input type="checkbox"/> COBA <input type="checkbox"/> Other _____	<b>Desired term of implementation:</b> <input checked="" type="checkbox"/> Fall <input type="checkbox"/> Spring <input type="checkbox"/> Summer   Year: 2016	<b>Mode of Delivery:</b> <input checked="" type="checkbox"/> face to face <input type="checkbox"/> hybrid <input type="checkbox"/> fully on-line
<b>Course Proposer (please print): Greig Guthey</b>	<b>Email: gguthey@csusm.edu</b>	<b>Submission Date: March 15 2016</b>

**1. Course Catalog Description:** Examines the place of the earth in the solar system; the seasonal and latitudinal distribution of solar energy; analyzes the many elements of weather, climate, vegetation, and soils; considers the earth's major landforms and the processes that shape them; examines the earth's water system. *This course satisfies the earth science content requirement for candidates in the Elementary Subject Matter Preparation Program, the Integrated Credential Program, and the Elementary Subject Matter Preparation Certificate.*

\*\*\*Please note: This is an existing course approved by the Senate on March 2, 2016. We are seeking GE designation for the course. If possible, we would love to have this form reviewed this semester so that our new faculty member who we just hired can teach full classes in the fall.

**2. GE Syllabus Checklist: The syllabi for all courses certified for GE credit must contain the following:**

<input checked="" type="checkbox"/>	Course description, course title and course number
<input checked="" type="checkbox"/>	Student learning outcomes for General Education Area and student learning objectives specific to your course, linked to how students will meet these objectives through course activities/experiences
<input checked="" type="checkbox"/>	Topics or subjects covered in the course
<input checked="" type="checkbox"/>	Registration conditions
<input checked="" type="checkbox"/>	Specifics relating to how assignments meet the writing requirement
<input checked="" type="checkbox"/>	Tentative course schedule including readings
<input checked="" type="checkbox"/>	Grading components including relative weight of assignments

**SIGNATURES**

Greig Tor Guthey March 15 2016  
Course Proposer                      Date

Jocelyn C. Ahlers                      3/16/16  
Department Chair                      date

*Please note that the department will be required to report assessment data to the GEC annually. JCA*  
*DC Initial*

Support      Do not support\*  
see email 3/22/16                         
Library Faculty                      Date

Support      Do not support\*  
                        
Impacted                      Date  
Discipline Chair

Support      Do not Support\*  
                        
Impacted Discipline                      Date  
Chair

Approve      Do not Approve  
                        
GEC Chair                      Date

**\* If the proposal is not supported, a memo describing the nature of the objection must be provided.**

**Virginia Mann**

Library  
Support

**From:** Melanie Chu  
**Sent:** Tuesday, March 22, 2016 11:00 AM  
**To:** Greig Guthey  
**Cc:** Virginia Mann  
**Subject:** Re: NEw Course GE Designation

Hi Greig and Virginia,

Thank you for the opportunity to review GEOG 110 Introduction to Physical Geography. I look forward to collaborating with GEOG faculty as needed, to support the student learning outcome: "find, evaluate, and use information appropriate to the course and discipline."

Please consider this email my approval for the GEOG 110 course.

Melanie Chu

Outreach Librarian, Library Faculty  
California State University San Marcos  
[mchu@csusm.edu](mailto:mchu@csusm.edu) | KEL 3306 | 760.750.4378

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**From:** Greig Guthey <[gguthey@csusm.edu](mailto:gguthey@csusm.edu)>  
**Date:** Wednesday, March 16, 2016 at 2:02 PM  
**To:** Melanie Chu <[mchu@csusm.edu](mailto:mchu@csusm.edu)>  
**Subject:** NEw Course GE Designation

Hi Melanie

As the geography librarian, I think you are the person to review this GE form. I know that the time is late but I am trying to get this review completed quickly so that we can have our new faculty member teaching this course next fall. LEt me know if you have any questions.

Thanks

Greig Tor Guthey  
Associate Professor of Public Policy and Planning & Geography Coordinator  
Department of Liberal Studies  
homepage: [http://www.csusm.edu/liberalstudies/faculty/greig\\_guthey.html](http://www.csusm.edu/liberalstudies/faculty/greig_guthey.html)  
geography: <http://www.csusm.edu/liberalstudies/geography.html>  
food project: [http://www.csusm.edu/liberalstudies/Food\\_Project.html](http://www.csusm.edu/liberalstudies/Food_Project.html)

*LBST Chair Sign.*

Reply all | Delete | Junk | ...



# Re: GEC Form for Geog 110

JA

Jocelyn Ahlers

To:  Greig Guthey; ▾



Reply all | ▾

Wed 3/16/2016 12:49 PM

Inbox

GEOG 110 LDGE B1 form... ▾  
46 KB

▾ Show all 1 attachment (46 KB) Download Save to OneDrive - California State University San Marcos

Dear Greig,

I have added my name to the signature page, and please accept this email as a further signature on this form.

Best,

Jocelyn

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Course Coordinator: Greig Tor Guthey Phone: 760-750-8015 Email: gguthey@csusm.edu

**Part A: B1 Physical Science General Education Learning Outcomes (GELOs) related to course content. [Please type responses into the tables.]**

<b>Physical Science GELOs this course will address:</b>	<b>Course content that addresses each GELO.</b>	<b>How will these GELOs be assessed?</b>
B1.1 Students will explain accepted modern physical or chemical principles and theories, their areas of application, and their limitations.	Concepts addressed: (1) Physical Geography, (2) Earth as an Open and Closed System, (3) Understand the four main components of the Earth System: Geosphere, Atmosphere, Biosphere, and Hydrosphere, and (4) the Role of the Sun's Energy in Shaping the Earth System.	Student understanding will be assessed through questions on two exams that focus on physical geography, its application and limitations as well as through in-class problem sets and projects. For example, students will be asked to differentiate between the various component systems of the earth system and explain their role in the carbon cycle.
B1.2 Students will apply the discipline's customary methods to solve problems through data collection, critical evaluation of evidence, the application of quantitatively rich models, and /or employment of mathematical and computer analysis.	Spatial analysis is a main method of geographers. Physical geography involves spatial analysis of the elements, processes and systems that make up the environment, and their interaction with humans.	Students will be assessed through questions on exams and through exercises in class. For example, students are asked to assess the increase in atmospheric CO2 at Mauna Loa and determine why it appears to increase with each passing year?
B1.3 Students will be able to articulate what makes a good scientific theory, incorporating values of parsimony, agreement with experimental or observational evidence, and coherence with other mathematical or physical theories.	Introduction to the Scientific Method, hypothesis making and testing, and scientific theories.	Quizzes, assignments and tests contain questions which will assess students' ability to make hypotheses and understand that good scientific theory is based on verification through repeated experiments. For example, students will learn about and examine the multiple forms of climate change data (tree ring, atmospheric data, ice cores, etc).
B1.4 Students will be able to identify areas in which ethics either (1) directs or limits physical science research or (2) is informed by the products of this research	Human impacts on the Earth System.	Students will be assessed through exam questions and in-class work on how people shape the environment. For example, students will be asked to explain urban

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		heat island effect.
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**Part B: General Education Learning Outcomes required of all GE courses related to course content:**

<b>GE Outcomes required of all Courses</b>	<b>Course content that addresses each GE outcome?</b>	<b>How will these GELOs be assessed?</b>
Students will communicate effectively in writing to various audiences. (writing)	Students are required to complete reflective critical writing assignments and maintain journals of their work in the course.	Students are assessed on their ability to write clearly and effectively articulate concepts discussed during lecture.
Students will think critically and analytically about an issue, idea or problem. (critical thinking)	Quizzes, tests and exam problems will require students to integrate course material and critical thinking.	Students are assessed on their ability to answer questions that require them to integrate course material and critical thinking skills.
Students will find, evaluate and use information appropriate to the course and discipline. (Faculty are strongly encouraged to collaborate with their library faculty.)	Reading assignments, in-class activities and additional material	Students are assessed on their ability to find and use appropriate information in Physical Geography. For example, students will be asked to find articles in physical geography related to climate change, biogeography, erosion and other topics.

**Part C: GE Programmatic Goals: The GE program aligns with CSUSM specific and LEAP Goals. All B1 courses must meet at least one of the LEAP Goals.**

<b>GE Programmatic Goals</b>	<b>Course addresses this LEAP Goal:</b>
LEAP 1: Knowledge of Human Cultures and the Physical and Natural World.	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
LEAP 2: Intellectual and Practical Skills	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
LEAP 3: Personal and Social Responsibility	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
LEAP 4: Integrative Learning	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
<b>CSUSM Specific Programmatic Goals</b>	<b>Course content that addresses the following CSUSM goals. Please explain, if applicable.</b>
CSUSM 1: Exposure to and critical thinking about issues of diversity.	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (please describe): <i>This course addresses the complexity of the earth system in terms of its various components systems and how humans live in different regions and at different times, but it does not address human diversity with respect to race, ethnicity, sexuality, gender, etc.</i>
CSUSM 2: Exposure to and critical thinking about the interrelatedness of peoples in local, national, and global contexts.	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (please describe): <i>This course addresses human impacts on the environment and seeks to develop understanding of human influence on physical geography at various scales.</i>

**Part D: Course requirements to be met by the instructor.**

<b>Course Requirements:</b>	<b>How will this requirement be met by the instructor?</b>
Course meets the All-University Writing requirement: A minimum of 2500 words of writing shall be required for 3+ unit courses.	In this class, the All-University Writing Requirement is met through the combined writing requirements of several aspects of the course. Key among them are in-

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	class lab exercises and related questions assigned in class for this purpose and tracked through online writing. Also, both the midterm and final exam include questions which require analytic writing in response. Together, these requirements will meet or exceed the 2500-word minimum.
Courses shall include an evaluation of written work which assesses both content and writing proficiency, using a writing style and use of language that is appropriate for the sciences.	This course includes assignments that will be graded on students' writing proficiency and content. For example, students will be asked summarize the scientific evidence for anthropogenic forcing of climate as part of the section on climate change.
Courses should demonstrate to students that the applications of physical science principles and theories can lead to lifelong learning in science and to productive and satisfying life choices.	This course endeavors to develop among those who take it a life-long interest in the earth system, illustrate continuing research questions and avenues of inquiry, and show potential career opportunities in geography and the earth sciences. For example, students will learn about the work of physical geographers and the interesting tools that they use including maps, GIS, GPS and Remote Sensing tools (drones and airphotos, satellite photos, and other data).
Courses should demonstrate to students the ways in which science influences and is influenced by societies in both the past and the present.	This course includes content covering the development of scientific knowledge about the planet in the past as well as the development of scientific knowledge of the planet now and in the future.
Courses should empower students to communicate effectively to others about scientific principles and their application to real-world problems.	This course introduces students to a systems perspective on the earth system and will prepare them to communicate effectively about the earth system and ongoing changes to the system based in scientific evidence.
Courses shall build the students' information literacy in a way that is appropriate to the field and level of the course.	The course introduces students to a range of datasets and sources of data concerning the earth system (NASA, Satellite Imagery, GIS, etc.)
Courses shall require students to think critically so that they are able to distinguish scientific arguments from pseudo-scientific myths or opinions.	The course addresses human impacts on the environment while also seeking to understand geosystems. For example, students examine climate change from a science and systems perspective and exams and in-class work will ask students to reflect on opinions about climate change vs. the existing science of climate change.

## GEOGRAPHY 110

### INTRODUCTION TO PHYSICAL GEOGRAPHY

#### Course Overview and Objectives

As a study of the earth's physical environment, this course examines the seasonal and latitudinal distribution of solar energy; analyzes the many elements of weather, climate, vegetation, and soils; and considers the earth's major landforms and the processes that shape them. Though each topic is treated separately, this course demonstrates the basic relationships among these topics and points out the human implications in all physical earth systems. Map use and laboratory work is an integral part of this course. There is a lab component to this class that must be successfully completed in order to pass the overall course.

#### Student Learning Outcomes

By the end of the course, students should be able to:

- Describe how the atmosphere, hydrosphere, lithosphere and biosphere interact in the earth's system;
- Interpret various types of data, imagery and maps that relate to earth process;
- Demonstrate understanding of how various geomorphic agents shape the earth's surface;
- Relate the introductory principles of earth-sun relationships;
- Describe how the interrelationships between the earth's energy balance and belts of pressure and wind influence weather, climate and the location of biomes.

#### Text

Geosystems, 8th ed, 2012. Author: Robert W. Christopherson.

#### Lab manual

Applied Physical Geography: Geosystems in the Laboratory, 8th ed., 2012. Authors: Christopherson and Thomsen

#### Assessment

Midterm	35%
Final	35%
Lab Exercises	25%
Participation	5%

NOTE: there will be two exams; a 'midterm' and 'final'. While the final is not cumulative in the strictest sense, understanding of processes builds throughout the semester and so you will be expected to keep this in mind.

**All-University Writing Requirement:** Students must complete 2500+ words of writing over the course of the semester in each class. In this class, the All-University Writing Requirement is met through the combined writing requirements of several aspects of the course. Key among

them is the maintenance of a lab notebook in which students will document their lab exercises, as well as reflecting on the course material per questions assigned in class for this purposes. Both the midterm and final exam include questions which require analytic writing in response. Together, these requirements will meet or exceed the 2500-word minimum.

#### **University Academic Honesty Policies:**

- Students who are required to do a paper in a course should assume that submitting the same or similar paper to different courses (regardless of whether it is in the same semester or in different semesters) is not permitted without the explicit permission of the instructors of both courses.
- The maintenance of academic integrity and quality education is the responsibility of each student within CSUSM and the CSU system. Cheating and plagiarism in connection with an academic program at a campus is listed as an offense for which a student may be expelled, suspended, put on probation, or given a less severe disciplinary sanction. You may assume that any paper which includes an instance of cheating or plagiarism will automatically be given a zero; further disciplinary action will be decided upon at that time, and may include removal of the cheating student or students from the class with a failing grade.

**Students with disabilities** are encouraged to discuss with me as soon as possible any special testing, homework, seating, or other arrangements that might be necessary.

#### **Final Course Grading**

A 90 % or more

B 80.0 – 89.9

C 70.0 – 79.9

D 60.0 – 69.9

F Below 59.9

#### **Course Schedule (readings)**

Week 1: Introduction to course, Lab materials and set-up. (Ch. 1)

Week 2: Earth and the solar system (Ch. 2)

Week 3: Rocks and earth structure (Ch. 11: 323-339)

Week 4: Plate Tectonics, earth quakes (Ch. 11: 341-354, Ch. 12: 358-384)

Week 5: Volcanoes (Ch. 12: 385-397)

Week 6: Weathering and Mass wasting (Ch. 13: 400-426)

Week 7: Fluvial Systems (Ch. 14: 430-465)



Exam 1

Week 8: Glacial and Periglacial Processes (Ch. 17: 530-565)

Week 9: Earth/Sun Relations (Ch. 2: 38-57)

Week 10: Atmosphere and Energy (Ch. 3: 60-85, Ch. 4: 88-108)

Week 11: Temperature (Ch. 5: 114-135, Ch. 6: 140-170)

Week 12: Water and Atmospheric Moisture (Ch. 7: 174-203, Ch. 8: 206-240, Ch. 9: 246-248)

Week 13: Global Climate Systems (Ch. 10: 276-317)

Week 14: The Geography of Soils (Ch. 18: 572-585)

Week 15: Ecosystem Essentials, Terrestrial Biomes (Ch. 19: 604-644, Ch. 20: 648-673)

Final Exam