GE STATUS REQUEST FORM: GLOCUP

Course ID: GEOG 1000
Course Name: Physical Geography
Contact person: Janice M. Hayden
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Phone: (435) 229-0023

Step 1: Describe how your course provides broad introduction to the content of a Global and Cultural Perspectives education. Demonstrate how your course is broadly foundational, rather than narrow or limited. Is your course available and taught in a manner accessible to non-majors?

Physical Geography 1000 is designed for non-science majors to fulfill the General Education Physical Science requirement with a Global Perspective. As described in the Dixie State College course catalogue, the course "focuses on the physical elements of the natural environment, including atmosphere, lithosphere, biosphere, hydrosphere and their integrated patterns of world distribution." Course material includes the major concepts of several introductory classes taught separately at Dixie State College including astronomy, geology, oceanography, meteorology, biology, and ecology which are all based on the foundational physical sciences of physics and chemistry; thus, this course is the perfect blend of sciences for a Physical Science general education course with a Global Perspective for non-majors. Several sections of this class are taught every semester.

Physical Geography 1000 provides broad introduction to the content of a Global and Cultural Perspective education by considering global physical phenomenon that both create natural hazards for humankind and control the development of natural resources that must be utilized to sustain our civilization. Global processes control hazards generated by the lithosphere, such as earthquakes and volcanic eruptions, that may be considered a local occurrence, but that have global social, economic and environmental impacts. The surface processes that generate physical hazards such as flooding, landslides, and sink holes are also global in scope, as are atmospheric processes that create hazards like wind storms, hurricanes, and tornados. Although these types of hazards are nearly momentary events that affect civilization, long term threats such as global climate change have the potential to disrupt global population as well, by melting glaciers, raising sea level, and redistributing world water resources, creating drought.

Use of natural resources, particularly non-renewable resources, must be considered carefully as world population increases. Development of these resources sustains our civilization and lifestyle but also creates the challenges of pollution, which may threaten wellness or life itself, and depletion. As resources are depleted, new ways to generate electricity and provide necessary energy must be developed and alternative mineral resources must be utilized. Continued access to critical mineral resources, distributed unevenly around the globe by natural processes, is threatened by the governments who control those resources. Conservation and habitat preservation on a global scale becomes critical to the survival of many species especially those specialists who inhabit a specific niche in the fabric of life and those with narrow tolerance ranges.
Step 2: Every GE area has established learning objectives that every student is expected to achieve as a result of any class which has been granted GE status in that area. Below is a list of learning objectives for GLOCUP courses. On a separate page, please indicate (in paragraph form) how the proposed course satisfied the objective requirements, in this case meeting at least 4 of the 8 objectives.

Global Perspectives

1. Examine and critique information and argument related to substantive problems that have a global dimension.

   Physical Geography 1000 curriculum includes several substantive problems that have a global dimension, such as realizing the global impact of localized natural disasters, providing energy and food sources for a growing world population and the global environmental consequences of doing so, and considering the social, economic, and environmental impacts of natural resource development verses conservation. Global climate change, in particular, is a specific issue that students have the opportunity to examine and critique information and argument for, using scientific journals, news articles, political speeches and events, video clips of scientists and politicians, and the perspective of geologic time.

2. Learn how to evaluate sources from a variety of perspectives and use those sources to inform their critique of problems in the global community.

   Physical Geography 1000 students learn how to evaluate sources from a variety of perspectives and use those sources to inform their critique of problems in the global community through the use of textbook background material, video presentations, current events concerning issues, governmental policy statements, and a variety of writings from environmental and conservationist groups to economic development and multiple-use groups, along with classroom discussions. One assignment in particular is the Environmentalist response paper that is an essay on the following:

   In his novel, Earth, David Brin makes the statement that “only people with full stomachs become environmentalists.” How do you address this statement especially considering the issues usually centered in underdeveloped countries of:
   1) acid rain vs. burning of high sulfur coal
   2) soil erosion vs. famine and drought
   3) farm land vs. rain forests

   This 5-paragraph essay includes an introductory paragraph interpretation of the David Brin statement, one paragraph for each of the three issues listed, and a concluding paragraph that allows students to give their perspectives on and propose solutions for these pressing global issues.
3. Demonstrate the ability to develop informed judgments about global issues.

Students in Physical Geography 1000 classes have ample opportunity to demonstrate their ability to develop informed judgments about global issues. One such opportunity is the Environmentalist response paper, discussed above, where students must make informed judgments on issues like land use such as farm land versus rain forest, and what is appropriate considering soil type, rain fall amounts, local needs of food supply compared to global needs of carbon dioxide absorption and oxygen production, among others. Another specific assignment that meets this objective is the Revisited response paper. For this paper, students analyze some experience they have had with a natural phenomenon powered by Earth's internal energy in terms of what they now know about Plate Tectonics, and what the local and global ramifications were of this event. This is a great opportunity for students to think through cause and effect relationships in order to demonstrate their ability to develop informed judgments about global issues.

4. Synthesize and balance information in developing appropriate evidence-based conclusions about global issues.

Physical Geography 1000 curriculum includes many global issues that provide students with the opportunity to synthesize and balance information as they develop appropriate evidence-based conclusions. One specific assignment that provides this opportunity is the take-home portion of the final exam, called Final article responses. For each unit, students are required to collect five articles, 25 total for the semester, from reputable news sources that detail current events whose topics correspond to each unit as it is studied. For part of their cumulative final exam, students choose one article from each of the five units, for a total of five articles then analyze each event, synthesize their response and evaluate each one using their newly acquired geographic knowledge. Each response is 1/2 page, typed with a readable font, and double-spaced for a total of 2 1/2 pages. As these collected events are discussed as they occur, students are usually surprised to realize how many lives around the globe are affected either directly or indirectly by events such as earthquakes and volcanic eruptions during the two weeks we study Unit One, or by landslides and wind storm events during Unit Two, or by flooding, sink holes, and shoreline events during Unit Three, by weather events like hurricanes, tornados, heat waves and droughts during Unit Four and by climate change and habitat loss in Unit five, just to give some examples. Students must be able to analyze these events, synthesize both the science and human contributions that are responsible for creating these events and evaluate these with appropriate evidence-based conclusions.
Cultural Perspectives

8d. Demonstrate an understanding of the interconnectedness of society, culture, and individual identity by describing and analyzing the concept of globalization and transnationalism in order to evaluate the interdependent nature of the world we live in.

A lot of Physical Geography 1000 classroom discussions center on students understanding the interconnectedness of society, culture and individual identity. One such discussion centers on mineral resource availability. Currently, the United States Geological Survey has identified 18 critical minerals that the United States is 100% dependent on imports for our supply. Many of these are currently mined in China, which means we either need to maintain a positive trade relationship with China or change the current political and environmental policy in our own country to allow mining for these minerals here. An assignment that specifically allows students to meet this objective is the "Six Themes of my hometown" response paper where students describe and analyze the six themes of geography that illustrate the interconnectedness of society, culture, and individual identity using their experiences and perceptions of their hometown. The themes include:

1. Location
   a. Absolute
   b. Relative
2. Characteristics of places
3. Spatial Distributions and Spatial Patterns
4. Spatial Interaction
5. Ever-Changing Earth
6. Human-Environment Equation

By participating fully in Physical Geography, students do grasp their personal responsibility to become wise consumers and competent citizens. They then understand that their individual choices really do affect this planet's ability to support life and to continue to support our lifestyle, as the course rationale in the syllabus states.
PHYSICAL GEOGRAPHY 1000 - Section 1 CRN-24569  
Spring 2012 Syllabus

INSTRUCTOR:  Janice M. Hayden  
CREDITS: 3 semester hours  
OFFICE HOURS:  T and Th 9:15-10:15 a.m. or by appointment in SC 115B.  
PHONE: (435)879-4411 ext. 30  
E-MAIL: hayden@dixie.edu  
TEXT: Essentials of Physical Geography, 9th edition (required). Library has a copy on Reserve.  
CLASS SCHEDULE AND LOCATION:  Tuesday and Thursday, 10:30-11:45 a.m. in SCI-115

SEMESTER CALENDAR AND CAMPUS RESOURCES:  
Web links for important deadlines, school policies, and campus resources such as the Tutoring Center, Writing Center, Testing Center, Computer Lab, IT Center, dmail, and the library are available at http://new.dixie.edu/reg/syllabus. You are responsible for information sent to your dmail email account, so please check it often. If you do not know your user name and password, go to www.dixie.edu and select "dmail" for instructions. You are also responsible for information posted for this class on Blackboard. Remember, I have the option of emailing reminders and changes to the entire class.

COURSE RATIONALE AND OBJECTIVES:  
This course satisfies General Education - Physical Science requirement. It is designed to help students come to know the complex set of subsystems that function on our planet, given the fact that our Earth is a closed system. Earth is a dynamic planet which is continually being changed by both internal and external forces. As students study how Earth's interdependent subsystems operate, they will learn how fragile our planet's ability to support life and lifestyle really is. By studying the origin of Earth materials, students will discover that we cannot continually pollute our environment without changing it and that our natural resources are limited and, in most cases, nonrenewable. Since each one of us make decisions everyday that affect this planet's ability to support life, it is important that we possess the necessary knowledge, are able to draw logical conclusions, and feel a sense of responsibility to others in order to make wise choices.

AFTER THIS GENERAL EDUCATION COURSE, STUDENTS WILL BE ABLE TO:  
  1. Identify and define their own world view, compare and contrast their world view with other  
     world views and through written and oral communication present and defend their world view.  
  2. Have an informed opinion based on background knowledge, which can be expressed orally or  
     in writing, concerning current events reported in a national newspaper or other media.  
  3. Explain and apply fundamental scientific laws, concepts, and theories in the physical sciences  
     and use that knowledge to foster life-long scientific literacy.  
  4. Demonstrate knowledge of the process of science including asking a testable question,  
     designing an experiment, using inductive and deductive reasoning in forming hypotheses and in making  
     reliable predictions as a basis for comprehending how scientific knowledge is generated and validated.  
  5. Communicate scientific ideas through oral or written assignments and critique the content of  
     scientific articles.  
  6. Present data in tables, graphs and charts and analyze and interpret this data by employing  
     mathematics and statistics to make independent, empirical inquiries about the natural world.  
  7. Apply critical reading skills to a wide range of materials that will allow them to comprehend,  
     apply, synthesize, evaluate, form opinions, and make appropriate decisions.  

See precise course objectives listed on the final exam review sheet posted on Blackboard.

DISABILITY STATEMENT:  
"If you suspect or are aware that you have a disability that may affect your success in the course you  
are strongly encouraged to contact the Disability Resource Center (DRC) located in the North Plaza  
Building. The disability will be evaluated and eligible students will receive assistance in obtaining  
reasonable accommodations. Phone 435-652-7516"
FIELD TRIP:
A required, all-day field trip is scheduled near the end of the semester. Bring a lunch and water and wear good walking shoes! Make arrangements for other obligations you may have well in advance.

ATTENDANCE AND PREPARATION:
Attendance at every class is expected. Class will begin promptly at the designated time. If you are unable to attend class for any reason, it is up to you to obtain the content of the lecture and any assignment from a classmate or Blackboard.

Course content will follow the text material but will not be presented in the order the text is written. It is essential that you follow the course schedule. Please read and study the assigned pages prior to the lecture. This will allow you to better understand the material presented, ask pertinent questions and stay involved in the learning process. Please, no texting or other disruptions in class.

LEARNING LOG:
Each student will be required to provide a one inch 3-ring binder for the sole purpose of developing a Learning Log in this course. Please make a title page and spine label. The Learning Log will consist of two distinct sections: Geographic discoveries and current geographic events.

The Geographic Discoveries section consists of specific individual writing assignments and class activities from throughout the semester that allow for the analysis, synthesis, and evaluation of material presented in this course. These assignments require both attendance at class and thoughtful study of textbook material. All response papers must be typed with a 12 pt., readable font and double-spaced.

For the Current Geographic Events section, five articles that detail a current event, whose topic corresponds to each unit as it is studied, are required. Include the source and date for each article. Every assignment, its due date and its point value is listed on the Table of Contents I give you at the beginning of the semester. The due date for each assignment will be strictly adhered to.

EXAMINATIONS:
Five unit examinations and a cumulative final exam will be given during this course. All unit exams are taken in the Testing Center. Please bring your ID, a pencil and a scantron form with you for each of these tests. Because of the format of this course, make-up exams are virtually impossible and none will be considered without proper arrangements being made prior to the exam.

EVALUATION:
Points will be assigned approximately as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Five unit exams @ 100 points</td>
<td>500</td>
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<tr>
<td>Field trip</td>
<td>50</td>
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<tr>
<td>Learning Log</td>
<td></td>
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<tr>
<td>Response papers/activities</td>
<td>200</td>
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<tr>
<td>Five article collections @ 10 points</td>
<td>50</td>
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<tr>
<td>Complete learning log</td>
<td>25</td>
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<td>Final Exam</td>
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<tr>
<td>In class portion</td>
<td>150</td>
</tr>
<tr>
<td>Take home portion</td>
<td>+ 25 points</td>
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<td>TOTAL</td>
<td>1000</td>
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A > 93%  B+ >=87-89.9%  C+ =77-79.9%  D+ =67-69.9%,  F < 60%
A-=90-92.9%  B =83-86.9%  C =73-76.9%  D =63-66.9%
B-=80-82.9%  C-=70-72.9%  D-=60-62.9%

ACADEMIC INTEGRITY:
The faculty and staff of Dixie State College are opposed to cheating in any form. A student who chooses to cheat by copying the work of someone else, whether published or unpublished, runs the risk of being removed from the class, receiving a failing grade, and/or being expelled from the college.

Please resist every temptation to pass off the work of another as that of your own and make an honest effort to produce quality work while improving your own talents and abilities.
FINAL EXAM REVIEW
Physical Geography 1000 Course Objectives - J.M. Hayden

Table of Contents provides a good review of the different disciplines we have studied that are all a part of physical geography. Which area interests you the most and why? What are some of the global challenges and/or problems that are currently being researched in this area? What can you do to "think globally, but act locally" concerning these challenges/problems?

Chapters 1, 3, 13, and 14: Trace the sequence and causes of the differentiation of the newly accreted, solid earth into concentric layers, including the development of the atmosphere and oceans. What features of the Earth make it unique in the solar system in its ability to support life?

Chapters 3, 4, 6, 11, 13, 14: Analyze Earth's internal and external energy sources. Include how the energy is created, what processes they power, the mechanics of those processes, some of the results of those processes, and what life forms each one supports.

Chapters 13, 14, and 20: Describe types of and location of plate boundaries; including plate motion, the type of stress involved and its resultant folding/faulting and landforms, and their relationship to the depth of earthquakes.

Chapters 15, 16, 17, 18, 19, and 20: Discuss the processes and efficiency with which water (as surface water, groundwater, ocean/lake water and water frozen as glaciers) shapes the surface of the Earth; including weathering, eroding (and erosional landforms), transporting, and depositing (and depositional landforms). Discuss wind also as an agent of gradation.
Chapters 6, 7, 12, 13, 14, 15, 16, 17: What are physical hazards that you should consider before investing in property to build a home on and the possible mitigation efforts/costs you should incorporate into your plans to minimize their possible effects. (5 please)

Chapters 4, 5, 6, and 7: List, define and describe the five elements of weather; including the “cause and effect” relationships created between them as they work to balance the Earth’s energy budget.

Chapters 1 and 20 (entire book): Evaluate the interrelationships of the Earth’s four subsystems. What does their being “open” systems within the "closed" Earth system mean in terms of pollution and resources? How must they all be included in the growing of our food?

Chapters 4, 8, 9, 10: Explain the six factors that control global climate using examples from Koppen’s climate classification system.

Chapter’s 8, 9, 10, and 11: Connect biogeography to the distribution of climates. How is Earth’s biogeography affected by climate change and by resource development?
<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>READING ASSIGNMENT</th>
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<tbody>
<tr>
<td>Jan 10 T</td>
<td>Physical Geography: Earth Environments and Systems</td>
<td>Ch. 1</td>
</tr>
<tr>
<td>12 Th</td>
<td>Earth-Sun Relationships</td>
<td>Ch. 3</td>
</tr>
<tr>
<td>17 T</td>
<td>Earth Structure, Earth Materials, and Plate Tectonics</td>
<td>Ch. 13</td>
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<tr>
<td>19 Th</td>
<td>Volcanic and Tectonic Processes and Landforms</td>
<td>Ch. 14</td>
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<td>24 T</td>
<td>Volcanic and Tectonic Processes and Landforms</td>
<td>Ch. 14 (continued)</td>
</tr>
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<td>26 Th</td>
<td>EXAM ONE - In the Testing Center (Tues 24th through Sun 29th)</td>
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<tr>
<td>31 T</td>
<td>Representations of Earth</td>
<td>Ch. 2</td>
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<tr>
<td>Feb 2 Th</td>
<td>Weathering and Mass Wasting</td>
<td>Ch. 15</td>
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<tr>
<td>7 T</td>
<td>Soils and Soil Development</td>
<td>Ch. 12</td>
</tr>
<tr>
<td>9 Th</td>
<td>Arid Region Landforms and Eolian Processes</td>
<td>Ch. 18</td>
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<tr>
<td>14 T</td>
<td>EXAM TWO - In the Testing Center (Thurs 9th through Tues 21st)</td>
<td>Ch. 17</td>
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<tr>
<td>In Class: Fluvial Processes and Landforms</td>
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<tr>
<td>16 Th</td>
<td>Underground Water and Karst Landforms</td>
<td>Ch. 16</td>
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<tr>
<td>21 T</td>
<td>No class - Take Exam 2 in testing center</td>
<td></td>
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<tr>
<td>23 Th</td>
<td>Coastal Processes and Landforms</td>
<td>Ch. 20</td>
</tr>
<tr>
<td>28 T</td>
<td>Glacial Systems and Landforms</td>
<td>Ch. 19</td>
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<tr>
<td>Mar 1 Th</td>
<td>EXAM THREE - In the Testing Center(Tues 28th through Sun 4th)</td>
<td></td>
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</tbody>
</table>
6  T  The Atmosphere, Temperature, and the Heat Budget  Ch. 4
8  Th  Atmospheric Pressure, Winds, and Circulation Patterns  Ch. 5
13 T  NO CLASS - Spring Break
15 Th  NO CLASS - Spring Break
20 T  Moisture, Condensation, and Precipitation  Ch. 6
22 Th  Air Masses and Weather Systems  Ch. 7
27 T  EXAM FOUR - In the Testing Center (Thurs 22\textsuperscript{th} through Tues 27\textsuperscript{th})
29 Th  Global Climates and Climate Change  Ch. 8

Apr 3 T  FIELD TRIP - 9:00 A.M. TO 3:00 P.M. (Wear good walking shoes; bring lunch, water, and pencil)

5 Th  Low-Latitude and Arid Climate Regions  Ch. 9
10 T  Mid-Latitude, Polar, and Highland Climate Regions  Ch. 10
12 Th  Biogeography  Ch. 11
17 T  Biogeography  Ch. 11 (continued)
19 Th  EXAM FIVE - In the Testing Center (Tues 17\textsuperscript{th} through Sun 22\textsuperscript{nd})

24 T  Review for Final Exam
26 Th  Complete Learning Log Due

May 3 Th  COMPREHENSIVE FINAL EXAM in SC 115

Section 2 - CRN 43687  9:30-11:30 a.m
TABLE OF CONTENTS
GEOGRAPHY 1000 LEARNING LOG - J.M. HAYDEN

SECTION ONE - GEOGRAPHIC DISCOVERIES - 250 POINTS

1. Fingernail growth graph (10 points) – due 3/8
2. Six themes of my Hometown - response paper (15 points) – due 1/12
3. Planetary Rap (10 points) – in class 1/12
4. Sundial (10 points) – due 1/17
5. Plate Tectonics Lab (15 points) – due 1/19
6. Earthquake prep (10 points) – due 1/31
7. __________Revisited response paper (15 points) – due 2/2
8. Cemetery weathering (10 points) – due 2/7
9. Environmentalists response paper (15 points) – due 2/14
10. Hazard Map analysis (5 points) – in class 2/16
11. Stream table sketches (10 points) – in class 2/14, 2/16, and 2/23
12. Map Reading Lab (15 points) – due 3/6
15. Field trip (50 points) – on 4/3 from 9:00 a.m. to 3:00 p.m.
16. Field trip response paper (15 points) – due 4/5
17. Climate Lab (15 points) – due 4/17

SECTION TWO - CURRENT EVENT ARTICLES - 50 POINTS

1. Unit 1 (10 points) – due 1/24
2. Unit 2 (10 points) – due 2/9
3. Unit 3 (10 points) – due 2/28
4. Unit 4 (10 points) – due 3/22
5. Unit 5 (10 points) – due 4/12

FINAL ARTICLE RESPONSES - 25 POINTS (Due 4/24)

COMPLETE LEARNING LOG - 25 POINTS (Due 4/26)

(Exam One - 100 points)
(Exam Two - 100 points)
(Exam Three - 100 points)
(Exam Four - 100 points)
(Exam Five - 100 points)
(Final Exam - 150 points)