WILLIAM RAINEY HARPER COLLEGE
BUSINESS AND SOCIAL SCIENCE DIVISION
GENERAL COURSE OUTLINE

GEG	112	**Physical Geography Laboratory**	(0-2)	1
Course Prefix	Course Number	Course Title	(Lec-Lab)	Semester Hours

Course Description

Prerequisite: Prior or concurrent enrollment in GEG 111 (Physical Geography, IAI P1 909).

Applies the scientific method of observation, hypothesis formation, and experimentation to Earth's four physical spheres: the atmosphere, the hydrosphere, the lithosphere, and the biosphere. IAI P1 909L

Topical Outline

MAP USE AND ANALYSIS
- I. Geographic Grid
- II. Standard Time
- III. Map Reading and Interpretation
- IV. Computer Based Geovisualization

ATMOSPHERIC PROCESSES
- I. Earth-Sun Relationships and Seasons
- II. Insolation and Global Temperature Patterns
- III. Wind and Atmospheric Circulation
- IV. Adiabatic Processes and Atmospheric Moisture

LITHOSPHERIC PROCESSES
- I. Plate Tectonics
- II. Soil Formation and Distribution
- III. Fluvial Geomorphology
- IV. Glacial Geomorphology
- V. Karst, Coastal, and Arid Landscapes

Method of Presentation

Other:
a. Laboratory exercises
b. Cooperative learning/small group discussions
c. Demonstrations or field investigations

Student Outcomes (The student should)

1. infer locations on maps using the geographic grid (latitude and longitude).
2. calculate time differences based on standard time concepts.
3. identify and interpret elements of thematic, topographic, and weather maps.
4. use GIS (Geographic Information Systems) or other Geovisualization software to display and measure geographic information.
5. relate Earth-Sun relations to the annual cycle of the seasons at different latitudes.
6. describe insolation processes and worldwide variations in temperature patterns.
7. describe the elements and patterns of global atmospheric circulation.
8. explain adiabatic processes and relate these processes to cloud formation.
9. analyze severe weather events using weather maps and other data.
10. classify climates using historical temperature and precipitation data.
11. explain and relate plate tectonic theory to volcanism, earthquakes, and sea-floor spreading.
12. describe soil development processes and characteristics.
13. identify and describe the processes and products of mass wasting.
14. recognize and differentiate between landforms created by karst, hydrothermal, fluvial, glacial, and coastal processes.
15. recognize and differentiate between landforms in arid lands

Methods of Evaluation

Grades are based on demonstrated proficiency in subject matter. Proficiency is determined from:
1. Lab performance
2. Homework
3. Exams

Textbook & Instructional Materials
Required:
None
Optional
Christopherson, Robert W. Elemental Geosystems 8th Edition. Pearson, 2016 ISBN: 9780321985019

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