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(A Constituent College of Moi University)

SCHOOL OF EDUCATION AND SOCIAL SCIENCES DEPARTMENT OF SOCIAL SCIENCES EDUCATION

FIRST YEAR

SEMESTER 1

ACADEMIC YEAR: 2018/2019

Course Title: THE EARTH'S PHYSICAL ENVIRONMENTS

Course Code: GEO 110

Credit Hours: 3

Course Purpose

To introduce students to basic concepts of the Earth's Physical Environments.

Objectives

- i. To enable the learner conceptualize the Earth as an integral part of the solar system
- ii. To enable the learner conceptualize the biophysical environments of the earth
- iii. To enable the learner conceptualize the biophysical processes that operate within and between the Earth's subsystems.

Expected Learning Outcomes

At the end of this course, the learner should be able to:

- i. Comprehend the earth as an integral part of the universe
- ii. Distinguish among the different Earth's environments
- iii. Gain knowledge on the spatial character and operations of biophysical processes
- iv. Teach and describe the structure of the earth
- v. Assess world climates.

Course Content

The Earth in the universe; structure of the earth Introducing the spheres of the Earth; Lithosphere, Atmosphere, Hydrosphere and Biosphere. The structure and materials of the Earth; Nature and classification of common igneous, sedimentary and metamorphic rocks; Landforms and formation processes; Tectonic theory and Global tectonics, Endogenic and Exogenic process, Associated landforms. The earth-sun relationships; Days and seasons. The structure of the atmosphere, Atmospheric processes, Pressure and wind patterns, Atmospheric moisture, Precipitation and rainfall distribution, Water bodies and their distribution; Plant and animal distribution , Factors influencing their distribution and relationships with earth's processes.

Course Outline

- 1. Scope and Concepts
 - i. Definitions
 - ii. Components
- 2. The Earth
 - i. Origin
 - ii. Structure
- 3. Earth Movements
 - i. Tectonic theory global tectonic
 - ii. Endogenic and Exogenic processes and resultant landforms

- 4. Landforms and Land-forming Processes
 - i. Folding
 - ii. Faulting
 - iii. Vulcanicity
- 5. Earth-Sun Relationship
 - i. Rotation
 - ii. Revolution
- 6. The Atmosphere
 - i. Composion
 - ii. Strucure
 - iii. Function
- 7. Weather and Climate
 - i. Elements of weather and climate
 - ii. Pressure and wind patterns
 - iii. World climates
- 8. Biosphere
 - i. Water bodies on the earth surface
 - ii. The hydrological/water cycle
- 9. Biogeography
 - i. Concepts of ecosystem
 - ii. Plant-animal relationship in an ecosystem

Learning and Learning Methods

Discussion, explanation, discovery, observation

Instructional Materials/Equipment

White board, text books, LCD, handouts, pictures, maps

Course assessment

| Type | | Weighting |
|--------------------------------|------------|-----------|
| Continuous Assessment Test (1) | Week 5/6 | 15% |
| Continuous Assessment Test (2) | Week 9/10 | 15% |
| End of Semester Examination | Week 15/16 | 70% |
| Total | | 100% |

Course Texts/References

- 1. Barry, R.G. & Chorley, R.J. (1972). Atmosphere, Weather and Climate. London: Methuen and Co. Ltd
- 2. Kaushik, A. (2009). *Perspectives in Environmental Studies 3rd edition*. New Delhi: New Age International Publishers
- 3. Otiende, J.E., Ezaza, W. P., & Boisvert, R. (eds) (2010). *An Introduction to Environmental Education*. Nairobi: Nairobi University Press
- 4. Strahler, A.N. (1965). Physical Geography. New York: Willy.
- 5. Thornbury, W. D. (1969) Principles of Geomorphology 2nd Edition. New Delhi: International Publishers

| Course Lecturer MORRIS M. MWATU | _ ~.5 | Date 6-8-2018 |
|---------------------------------|-------------|-----------------|
| COD DR MANYA W. STEPHEN | Sign Manny | Date 7/8/2018 |
| Dean Prof. Canyre Omulando | Sign Aleyon | Date 7 (8) 2018 |