

**LEAD CITY UNIVERSITY**  
**FACULTY OF ARTS AND EDUCATION**  
**DEPARTMENT OF ARTS AND SOCIAL SCIENCE EDUCATION**

**COURSE PARTICULARS**

**Course Code:** SSE 213  
**Course Title:** Study of Matters in Space  
**No of Units:** 2  
**Status:** Compulsory  
**Semester:** 2018/2019 Second Semester

**LECTURER DETAILS**

**Name:** Dr. Mojirade AYANTUNJI  
**Qualification:** Dip, B.Ed (Adult Edu & Language Arts), M.Ed, Ph.D  
(Adult Education/Social Welfare)  
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**Area of Specialization:** Social Welfare/Gerontology

**Introduction**

Space, is the expanse that exists beyond the Earth and between celestial bodies. Outer space is not completely empty it is a hard vacuum containing a low density of particles, predominantly plasma of hydrogen and helium as well as electromagnetic radiation, magnetic fields, neutrinos, dust, and cosmic rays. Outer space represents a challenging environment for human exploration because of the hazards of vacuum and radiation. There is no clear boundary between Earth's atmosphere and space, as the density of the atmosphere gradually decreases as the altitude increases.

**Course Description**

Study of matters in space refers to physical substance or material in general that exists in the outer space. The exploration of Man to the outer space reveals what goes on in the solar system and its effect on man. The discoveries by man about the outer space help to have understanding of the atmosphere of the planets and the lithosphere.

**Course Objective**

At the end of the lesson, the students should be able to:

1. define important concept in relation to this course;
2. explain the nature of Outer Space;
3. discuss the effect of space on Human bodies;

4. explain the term Atmosphere and the atmosphere of the earth; and
5. explain the meaning of Lithosphere and types

### **Teaching Plan**

Week 1: Conceptual Clarification  
Week 2: Outer Space and Space  
Week 3: Formation and State of Space: Big Bang Theory  
Week 4: Environment  
Week 5: Effect of Space on Human Bodies  
Week 6: Boundary and Legal Law of Outer Space  
Week 7: Earth Orbit  
Week 8: Exploration and Application  
Week 9: Atmosphere  
Week 10: Atmosphere of the Earth  
Week 11: Importance of Atmosphere  
Week 12: Lithosphere  
Week 13: Types of Lithosphere  
Week 14: Revision  
Week 15: Examination

### **References**

Bennet, Donalhue, Schneider, Voit. 2006. The Cosmic Perspective. 4<sup>TH</sup> Edition.  
Micheal, A. Seeds. Astronomy. The Solar System and Beyond. 3<sup>rd</sup> Edition.  
Skinner, B.J. and Porter, S.C.: Physical Geology, page 17, chapt. The Earth: Inside and Out, 1987, John Wiley & Sons, [ISBN 0-471-05668-5](#)  
Seki, K.; Elphic, R. C.; Hirahara, M.; Terasawa, T.; Mukai, T. (2001). "On Atmospheric Loss of Oxygen Ions from Earth Through Magnetospheric Processes". Science. 291 (5510): 1939–1941.

### **Assessment**

Attendance	= 10%
Class Test	= 20%
Term Paper	= 10%
Examination	= 60%
<b>Total</b>	<b>= 100%</b>

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**Tutorial Questions**

1. Define any five of the following concepts:
  - a. Matter
  - b. Dark Matter
  - c. Space
  - d. Interplanetary Space
  - e. Satellite
  - f. Orbits
  - g. Planet
  - h. Stars
  - i. Galaxy
  - j. Solar System
2.
  - a. Outer space is the expanse that exists beyond the Earth. Discuss
  - b. List and explain types of Outer space.
  - c. What do you understand by space region?
3. Explain the formation and state of space using Big Bang Theory.
4. Outer space represents a challenging environment for human exploration. Discuss
5. What do you understand by Boundary and Legal Law of Outer Space?
6. Explain the term earth Orbit
7. Humans began the physical exploration of space. Discuss
8.
  - a. What is atmosphere?
  - b. Define atmospheric pressure
9. Earth's atmosphere consists of a number of layers that differ in properties. Explain
10. Explain the importance of atmosphere
11.
  - a. Describe the term Lithosphere?
  - b. List and explain the Subdivision of Lithosphere
12. List and explain types of Lithosphere
13. How does the Lithosphere interact with other spheres?