

GEOG. 305 OCEANOGRAPHY

Course Brief:

It describes knowledge about world's oceans their distribution, and its resources. To produce the students with the applicable knowledge about existence of oceans, formation of ocean floors, their distribution and effects of climate and ocean resource management. It may identify the impact of basic and applied knowledge of oceanography, to impart skills on the ocean distribution, existence of oceans, and availability of resources in oceans.

Course Learning Objectives:

This study focuses on the spatial distribution of oceans and their effects Land, Ocean and atmosphere relationship, to study ocean currents, variability, and Mechanism. It will also discuss the law of sea and country rights for associated oceans and seas. It will discuss the ocean habitat to study the ocean resources and law of ocean territory.

Course Contents:

I.Introduction to Oceanography

- i. Historical overview of oceanography
- ii. Scope and significance of oceanography

II.Origin and Structure of Ocean Basins

- i. Origin of ocean basins
- ii. The permanency of the ocean basins and related theories
- iii. The origin of ocean water
- iv. Changes in sea level during the Tertiary and Quaternary periods

III.The Floors of Oceans

- i. The Physiography of the ocean floor
- ii. Geologic differences between continents & ocean basins
- iii. Characteristic features of ocean basins
- iv. Marine sedimentation

IV.The Circulation of the Oceans

- i. Ocean Currents
- ii. Waves and tides
- iii. Oceanic storms and disturbances

V.The Ocean Resources

- i. Law of the sea
- ii. Mineral Resources
- iii. Biological Resources
- iv. Marine Energy

VI.The Geographical Significance of the Oceans

- i. Interaction of ocean and atmosphere
- ii. The changing sea level
- iii. Oceans in exploration and transport
- iv. The strategic role of oceans

VII.Oceans and Seas of the World

Lab. Work

Drawing features of the Ocean floor, mapping of the ocean currents, tides and associated phenomena.

Recommended Books:

- Duxbury, A. B. & Duxbury, A.C. (2001) Fundamentals of Oceanography. London; 2nd Edition. WMC Brown Publishers.
- Pinet, P.R (2002) Invitation to Oceanography. London; 3rd Edition. Jones & Bartlett Publishers.
- Summerhayes, C.P. & Thorpe, S.A. (1998) Oceanography – An Illustrated Guide. London; 2nd Edition. Monson Publishing Ltd.
- Duxbury, A.B & Duxbury, A.C. (1994) An Introduction to the World Oceans. Oxford; 4th Edition. WMC Brown Publishers.
- King, C.A.M. (1962) Oceanography for Geographers. London; 1st Edition. Edward Arnold Publishers, Ltd.
- Barnes, H. (1959) Apparatus & Methods of Oceanography, London; 1st Edition. George Allen & Unwin Ltd.

Assessment			
Sr. No.	Elements	Weightage	Details
1.	Midterm Assessment	35%	Written Assessment at the mid-point of the semester.
2.	Formative Assessment	25%	Continuous assessment includes Classroom participation, assignments, presentations, viva voce, attitude and behavior, hands-on-activities, short tests, projects, practical, reflections, readings, quizzes etc.
3.	Final Assessment	40%	Written Examination at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.