Himalayan Ecology

Semester -I: July – December

Coordinator	Prof P K Joshi
Credits	2 Credits
Lecturers	Prof P K Joshi
Level	M.Phil. (Pre-Ph.D.)
Host institution	School of Environmental Sciences (SES), Jawaharlal Nehru University, New Delhi
Course duration	One Semester [January - June] Started in January 2021

Summary

This one full semester compulsory course provides the Pre-Ph.D. level students of Environmental Sciences the basic understanding of Himalayan Ecology in perspective of present development and environmental issues.

Target Student Audiences

Semester - II Students of M.Phil. (Pre-Ph.D.)

Prerequisites

- Nil

Aims and Objectives

This course has been designed with a view to help students in developing a comprehensive understanding and knowledge on Himalayan environment and ecology. In the recent years it has become increasingly evident that human activities and practices produce significant changes in in the mountain ecosystems and the Himalaya is one of the hotspots of this. The course provides an perspective to look in the Himalayan landscape from multiple perspectives. The main objectives of the course are: (i) to help students in knowing Himalaya and its unique setting; and (ii) to comprehend the challenges and issues related to Himalayan landscape and its relevance in the present context of environmental development in the country.

General Learning Outcomes:

By the end of the course, students will successfully:

- Understand the Himalayan Ecosystem,
- Learn and appreciate importance of Himalaya and link various perspectives of development with its setting.

Overview of Sessions and Teaching Methods

The course will make most of interactive and self-reflective methods of teaching and learning including mainly lectures and presentations. It will start with an overview of Ecosystem and related concepts. Subsequently it will build the science of ecosystem succession, structure and functional aspects. The sessions will be take help of blended teaching and learning approaches for interaction lecturing on different course components.

Course Workload

The table below summarizes course workload distribution:

Activities	Learning outcomes	Assessment	Estimated workload (hours)
In-class activities			
Lectures and Presentations	Himalayan Environment and Development Mountain ranges of the world UN Agenda 2030, Mountain in SDGs2030	Mid Semester Examination	06
Lectures and Presentations	Biological Diversity, Climate setting, Physical setting, Socio-ecological settings, Forests & forestry, Water Resources	Mid Semester Examination	06
Lectures and Presentations	Cultural Diversity, Landscapes, communities and Livelihoods, Traditional knowledge system, Transhumant, pastoralism and collectors, Urbanization	Mid Semester Examination	06
Lectures and Presentations	Tourism and Sustainability, Adventure tourists/eco-tourists/religious tourist and sightseers, Conservation and development issues	End Semester Examination	06
Lectures and Presentations	Sustainable Future, Environmental Issues Disasters and Climate Change, Political and governance issues, Economic, Cultural and Environmental needs (SDGs vis-à-vis Himalaya)	End Semester Examination	06
Total			***30***

Grading

The students' performance will be based on the following:

- Quizzes/Surprise Test – 20%
- Mid Semester Examination – 30%
- End Semester Examination – 50%

Course Schedule: Semester-II: January - June 2021

Course Assignments

The Structure of Individual Assignments will be as follows:

- Reading of research articles and working paper with given objectives.
- Participation in discussion and collection of newer evidences.

Literature

- Douglas, Ed. (2020). Himalaya: A Human History. Penguin Random House, pp 592.
- Pandit, M.K. (2017). Life in the Himalaya – An Ecosystem at Risk. Harvard University Press; 1st edition, pp 384.
- FAO. (2017). The 2030 Agenda and the Sustainable Development Goals: The challenge for aquaculture development and management, by John Hambrey. FAO Fisheries and Aquaculture Circular No. 1141, Rome, Italy.

- Wester P., Mishra A., Mukherji A., Shrestha A. (eds) The Hindu Kush Himalaya Assessment. Springer, Cham. https://doi.org/10.1007/978-3-319-92288-1_5
- Negi, G.C.S. and Dhyani, P.P. (2012). Glimpses of Forestry Research in the Indian Himalayan Region. G.B. Pant Institute of Himalayan Environment and Development and Bishen Singh Mahendra Pal Singh, Dehradun, pp 187.
- Price, M. F., Georg Gratzer, Lalisa Alemayehu Duguma, Thomas Kohler, Daniel Maselli, and Rosalaura Romeo (2011). Mountain Forests in a Changing World - Realizing Values, addressing challenges. Published by FAO/MPS and SDC, Rome.
- Johnston, B.R. (2012). Water, Culture Diversity, and Global Environmental Change. Springer Dordrecht Heidelberg London New York, 560.