

**Geography (Hons.)**  
**DSE Semester III Biogeography**

Credits: 4

Marks: 100

Approximate lectures: 40

Tutorials: one

This course teaches the fundamentals of Biogeography. The content of the syllabus would help the student to understand the concept of biogeography, the subject's nature and approaches. The syllabus also helps to understand biogeographical processes and biogeochemical Cycles and energy flows. It explores geographical distribution of biodiversity and its conservation.

**Course Objectives:**

1. To understand various dimensions of biogeography.
2. To get detailed analysis of energy cycles and their function.
3. To understand the concept of ecological succession and various biogeographical processes.
4. To identify geographical distribution of flora and fauna of the world.
5. To realize and understand the conservation of biodiversity.

**Learning Outcome:**

1. Detailed exposure of biogeography and biodiversity.
2. In-depth knowledge of circulation of biogeochemical cycles.
3. Functionality of the biogeographical processes.
4. Knowledge of Phytogeographical realms and Zoogeographical realms.
5. Develop understanding of the global level efforts to conserve biodiversity.

**Course Content:**

1. Biogeography- Nature, Approaches, significance and Scope
2. Biogeographical Processes- Dispersal, Speciation, Ecological Succession, Extinction
3. Biogeochemical Cycles- Sulphur and Phosphorus, Oxygen, Hydrogen, Carbon, Nitrogen
4. Geographical Distribution of flora and fauna- Phytogeographical realms, Zoogeographical realms (with specific reference to Wallace and Weber line)- Basis and Classification
5. Conservation: In situ and ex situ, CBD (Convention on Biodiversity)

**References:**

1. Bhattacharyya, N.N. (2003). Biogeography. New Delhi, India: Rajesh Publications.
2. Huggett, R.J. (1998). Fundamentals of Biogeography, USA: Routledge
3. Lomolino, Mark. V., 2020, Biogeography: A Very Short Introduction, Oxford Publication, ISBN: 9780198850069

4. Cox, C.B, et.al, 2016, Biogeography: An Ecological and Evolutionary Approach, 9th Edition, Wiley-Blackwell.
5. Taylor, J.A., 2021, Themes in Biogeography, Routledge, Taylor and Francis publications, ISBN 9780367351106
6. Pielou, E.C., 1979, Biogeography, John Wiley & Sons, USA. 10: 0471058459 ISBN 13: 9780471058458
7. L.C Aggarwal, 2018, Biogeography, Rawat publication Jaipur

**Suggestive:**

1. Clarke, G. L. (1967). Elements of ecology. New York, USA: John Wiley Pub.
2. Singh, R.B. (Eds) (2009). Biogeography and Biodiversity. Jaipur, India: Rawat Publication
3. Haden-Guest, S., Wright, J. K. and Teclaff, E. M. (1956). World Geography of Forest Resources. New York, USA: Ronald Press Co.
4. Mathur, H.S. (1998). Essentials of Biogeography. Jaipur, India: Anuj Printers.
5. Singh, Savindra. (2015). Jaiv Bhoogol (Hindi). Allahabad, India: Prayag Pushtak Bhawan
6. Sivaperuman, Chandrakasan et al. (2018). Biodiversity and Climate Change Adaptation in Tropical Islands. London, UK: Academic Press.