BDC334 — Biogeography and Global Ecology 334

Faculty	Natural Sciences
Home Department	Biodiversity and Conservation Biology
Module Topic	Biogeography and Global Ecology
Generic Module Name	Biogeography and Global Ecology 334
Alpha-numeric Code	BDC334
NQF Level	7
NQF Credit Value	30
Duration	Semester
Proposed semester offered	Second Semester
Programmes	BSc (Biodiversity and Conservation Biology) (3217, 3015)
Year level	3

Main Outcomes

- Discuss the past, present and projected future patterns of global biogeography.
- Examine the distribution of past floras, faunas and climate with respect to plate tectonics and compare them with current distributions.
- Explain the role that the major environmental drivers play in driving biogeographical patterns.
- Understand the physical basis underpinning the components of global change.
- Recognise the central importance that humans play in bringing about global change.
- Understand the ecological, physiological and behavioural basis for biogeographical change.
- Contrast the fundamental differences between ecological biogeography and historical biogeography.
- Consider the biogeography of key extant plant and animal lineages.
- Apply appropriate concepts to collect, analyse and interpret multivariate environmental and ecological data.
- Present their position on the above in discussion or in written format.

Main Content

- Global biogeography: key principles and concepts.
- Continental drift and glaciation.
- Theories of biogeography and biogeographic reconstruction.
- Phylogeography.
- Latitudinal gradients in diversity.
- Interactions of body and population size on diversity and distribution.
- Island biogeography theory and its applications for conservation.
- Earth as a system.
- The physical nature of environmental drivers of biogeography.
- Global change: the distinction between natural variability and anthropogenically-driven change.
- Overview of the biological responses to global change.
- Basic data collection and analytical methods in biogeography.

Pre-requisite Modules	BDC211 and BDC221 and BDC223
Co-requisite Modules	None
Prohibited Module Combination	None

Breakdown of Learning Time

Component	Hours	Time-table requirement / other modes
Contact with lecturer / tutor	42	Lectures p.w.: 3
Assignments & tasks	64	
Practicals	84	Practicals p.w.: 2×3
Assessments	10	Tutorials p.w.: 1
Self-study	100	
Other	0	
Total Learning Time	**300**	

Method of Student Assessment	Continuous Assessment (CA): 60% Final Assessment (FA): 40%
Assessment Module Type	Continuous and Final Assessment (CFA)