



Learning Unit Modules
Focused in Integral Professional Competences

I. GENERAL LEARNING UNIT

1. Identification	2. Code	3. Semester	4. Training area
Biogeography	DBG10	Second	Discipline

5. Mode				
Compulsory	X	Elective		
Classroom	X	Non-Attendance		Mixed
Laboratory		Field practices	X	Guided tours

6. Class shedule(hours per week)				
Theory	Practice	Independentstudy	Total hours	Credits
2	2	1	5	5

7. Person responsible for the subject.
Raúl Díaz Moreno

II. DATA SPECIFIC LEARNING UNIT

8. Objectives
<p>Study of the distribution of <u>species</u> and <u>ecosystems</u> in geographic <u>space</u> and through <u>geological time</u>. Understand and interpret the patterns of geographic distribution of plants and animals. Interpreting the effects of physical and biological factors in the distribution of plants and animals. Describing the main criteria to determine the establishment of biogeographical regions. Identifying and sensitized about the intervention of human activities on the distribution of organisms.</p>

9. Presentation.
<p>Biogeography is the study of the distribution of <u>species</u> and <u>ecosystems</u> in geographic <u>space</u> and through <u>geological time</u>. Organisms and biological <u>communities</u> vary in a highly regular fashion along geographic gradients of <u>latitude</u>, <u>elevation</u>, <u>isolation</u> and habitat <u>area</u>.</p> <p>Knowledge of spatial variation in the numbers and types of organisms is as vital to us today as it was to our early human <u>ancestors</u>, as we adapt to heterogeneous but geographically predictable <u>environments</u>. Biogeography is an integrative field of inquiry that unites concepts and information from <u>ecology</u>, <u>evolutionary biology</u>, <u>geology</u>, and <u>physical geography</u>.</p>



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Modern biogeographic research combines information and ideas from many fields, from the physiological and ecological constraints on organismal dispersal to geological and climatological phenomena operating at global spatial scales and evolutionary time frames.

This course is located in the area of basic training, and other subjects required to be carried in previous and current semesters.

10. Professional competences to develop in students.

Knowledge	Skills	Attitudes	Values
Present and reliable methodologies for quantifying forest resources. Ecological links among beneficial and harmful organisms that make up the ecosystems. Complex ecosystem that provides environmental and economical benefits for society. Interaction between society and forest resources.	Identifying the ecological links among beneficial and harmful organisms that make up the ecosystem. Understanding the ecosystem as a complex that provides environmental and economical benefits for society. Perform investigation of forest aspects, using forest lands as laboratories.	Interest in preserving nature. Collaboration and participation in team Works. Interest in self learning and continuous learning. Open to criticism and with availability to accept them.	Respect. Honesty. Responsibility. Commitment. Ethics.

11. Course topics

Unit I: Introduction to biogeography (History of Biogeography)
 Unit II: Distribution areas (The geography of diversification)
 Unit III: Factors that determine distribution areas (Dispersal and immigration) (Speciation and extinction)
 Unit IV: Biogeographic regions of Mexico and the world.

12. Evaluation criteria

Formative evaluation
 Summative evaluation
 Self assessment
 Co-evaluation
 Hetero-Evaluation



13. Information sources

Basic

Morrone, J.J. 2005. Sistemática, biogeografía, evolución: los patrones de la biodiversidad en tiempo-espacio. Facultad de Ciencias UNAM, México.

Lomolino, M.V., B.R. Riddle and J.H. Brown. 2006. Biogeography. Sinauer Associates, Inc. Publ. Suterland, Mass. 845 pp.

Zunino, M. y Zulli, A. 2003. Biogeografía: la dimensión espacial de la evolución. Fondo de Cultura Económica. México. 359 pp.

Complementary

Piedra, L., N.L. 2014. Biogeografía de Ericáceas de la Sierra Madre Occidental. Tesis Profesional. FCF-UJED. Durango, Méx. 56 pp.

Espinosa, D.O., y S. Ocegueda-Cruz. 2008. El conocimiento biogeográfico de las especies y su regionalización natural, en Capital natural de México, vol. I: Conocimiento actual de la biodiversidad. Conabio, México, pp. 33-65.

Journal of Biogeography

http://www.biodiversidad.gob.mx/pais/pdf/CapNatMex/Vol%20I/I01_Elconocimientobiog.pdf