

USIL INTERNATIONAL CENTER FOR STUDY AND RESEARCH

Course: Biodiversity of Peru

Professor: Oscar R. Ortega (M.Sc.)
Number of contact hours: 48

Credits: 03

Recommended level: junior or senior

Pre-requisites: General Biology strongly recommended

COURSE SUMMARY

The Earth's biodiversity is composed of many millions of biological species which are the product of four billion years of evolution. Peru is one of the world's 17 mega diverse countries. The extraordinary biodiversity of Peru means that students are able to observe many of these teeming life forms for themselves, and gain a deeper appreciation of the life that exists all around us.

| | TOPIC / LEARNING ACTIVITY / ASSESSMENT ACTIVITY | HOURS |
|---------------|--|-------|
| 1. | Reading of the syllabus. Explanation of the methodology and evaluation system. | 1 |
| | Classroom norms. | |
| 2. | How to define biodiversity. Levels of biodiversity. Importance of biodiversity. | 2 |
| 3. | Geography of Peru | 3 |
| 4. | Birds of Peru | 3 |
| 5. | Mammals of Peru | 1 |
| 6. | Agrobiodiversity of Peru | 2 |
| 7. | Field trip: Cochahuasi Animal Sanctuary, Huacarpay Lake and "Felipe Marin" Botanical | 5 |
| | Garden | |
| 8. | Megadiverse countries | 2 |
| 9. | Biodiversity hotspots | 2 |
| 10. | Centers of origin for crops (Vavilov and Harlan) | 2 |
| 11. | Pre-exam review | 1 |
| 12. | MID-TERM EXAM | 1 |
| 13. | Exam review | 1 |
| 14. | Environmental issues in Peru | 1 |
| 15. | Debate: Gold mining in Peru | 1 |
| 16. | Climate change | 1 |
| 17. | Debate: Climate change causes | 1 |
| 18. | Debate: Renewable energy | 1 |
| 19. | Field trip: Huatanay River. San Sebastián and San Jeronimo districts of Cusco | 3 |
| 20. | IUCN Red List | 1 |
| 21. | Biosphere reserves | 3 |
| 22. | Ecotourism | 2 |
| 23. | Medicinal plants | 1 |
| 24. | Field trip: Cusco's San Pedro market | 1 |
| 25. | Genetic improvement | 1 |
| 26. | DEBATE: Conventional hybridization vs. GMO | 1 |
| 27. | Final presentations | 2 |
| 28. | Pre-exam review | 1 |
| 29. | Final exam | 1 |
| BASIC READING | | |



| 1. | Brack, A., (2008), Peru: Land of Forests, Graph Ediciones, Lima. | |
|----|---|--|
| 2. | Brack, A., (2000). Ecología del Perú, Editorial Bruño, Lima. | |
| 3. | Kricher, J., (1999). A Neotropical Companion, Second edition, Princeton University Press, New | |
| | Jersey. | |
| 4. | rlan, J. (1992). Crops and Man, American Society of Agronomy - Crop Science Society of | |
| | America, USA. | |
| 5. | IUCN (2009). Wildlife in a changing world: an analysis of the 2008 IUCN Red List of Threatened | |
| | Species, IUCN, Barcelona. | |
| 6. | ulgar Vidal, J. (2014). Geografía del Perú: Las ocho regiones naturales del Perú, Editorial PUCP, | |
| | Lima. | |
| 7. | Schulemberg, T.; Stotz, D.; Lane, D.; O'Neill, J.; Parker, T., (2007). Birds of Peru, Princeton Field | |
| | Guides, USA. | |
| 8. | Wilson, D.; Sandoval, A., (1996). Manu: The Biodiversity of Southeastern Peru, Smithsonian | |
| | Institution, USA - Lima. | |