



Official Syllabus

Systematic Zoology

ZOOL 6025

Credit hours: 3	Contact hours: Three hours of lecture per week.
Prerequisites: Graduate Student or Director's Consent	Corequisites:
Course description in Spanish: La identificación y clasificación de los animals, reglas y bases de la nomenclatura, métodos cuantitativos de análisis, y métodos utilizados en la presentación de hallazgos sistemáticos. Se enfatiza el uso del cladismo y de sistemática filogenetica no solamente en los grupos animales, sino tambien en las plantas y todas las entidades biológicas.	
Course description in English: The naming and classification of animals, rules and basis of nomenclature, quantitative methods of analysis, and methods for presentation of systematic findings. Cladistics and phylogenetic systematics are emphasized not only for animals, but for plants and all biological entities.	
Objectives: This course is a graduate level course in completing a master's and Ph.D. degree in biology and marine sciences. The purpose of the course is to teach the student current knowledge in systematic biology, from a phylogenetic perspective. Specific goals for this course are the understanding of: 1) species diagnosis and description; 2) rules of nomenclature; 3) cladistics and phylogenetic analysis using parsimony; and 3) application of phylogenetic analysis to understand and elucidate biogeographical analysis.	

Outline of content:

Topics to be covered	Contact hours
Taxonomy, Nomenclature and Systematics	1
Microtaxonomy and the evolutionary process: species and speciation.	1
Genetic variation, polymorphic species, geographical races	1
Taxonomic and systematic analyses	1
Macrotaxonomy and the theory of biological classifications	2
Systematic characters	1
Numerical phenetics	1
Cladistics	20
Biogeographical Analysis	1

Total hours: (should be equivalent to the contact hours of the course)	30
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Instructional strategies:
lecture discussion computation laboratory
seminar with formal presentation seminar without formal presentation workshop
art workshop practicum trip thesis special problemas tutorial
research other (specify):

Minimal resources available:
 General Library and University Computer Center is available to obtain professor's reference materials. Reference material which is not available in the library will be placed in the reference section of the General Library and the Student Aid Center (SAC)
 Software for the analysis of genetic variation is available in the WEB for free (freeware) and will be available for the students to use at the Department of Biology Computer Center. Students will be required to analyze some sets of data using these resources.

Evaluation strategies and their relative weight:

	Percentage
<input checked="" type="checkbox"/> written exams	75
<input type="checkbox"/> oral reports	
<input checked="" type="checkbox"/> monographs	15
<input type="checkbox"/> portfolio	
<input type="checkbox"/> reflexive diary	
<input checked="" type="checkbox"/> other (specify): Discussion	10
TOTAL: 100%	100

Grading system:
quantifiable (letter grade) not quantifiable

References:
 Kitching, I.J., P. Forey, C. Humphries, & D. Williams. 1998. Cladistics: The theory and practice of parsimony Analysis (The Systematics Association Sp. Pub. No. 11).
 Mayr, E. & P. Ashlock. 1998. Principles of Systematic Zoology. 2nd. Ed. McGraw-Hill, USA

Después de identificarse con el profesor y la institución, los estudiantes con impedimento recibirán acomodo razonable en sus cursos y evaluaciones. Para más información comuníquese con Servicios a Estudiantes con Impedimentos en la Ofician del Decano de Estudiantes (Q-019), 787-265-3862 ó 787-832-4040 x 3250 ó 3258.

Attachments included:
 Yes
 No