



FACULTAD DE CIENCIAS

CURSO DE POSTGRADO

Nombre del curso	Ecología Evolutiva del Comportamiento - 2023
Tipo de curso (Obligatorio, Electivo, Seminario)	Electivo
N° de horas totales (Presenciales + No presenciales)	40 + 40
N° de Créditos	6
Fecha de Inicio – Término	Martes 23 de Marzo – Martes 6 de Julio
Días / Horario	Martes, 9:30 – 12:30 ; 14:30-17:30
Lugar donde se imparte	Sala de Postgrado, edificio Aulario, costado sur-oeste de edificio G.
Profesor Coordinador del curso	Rodrigo A. Vásquez
Profesores Colaboradores o Invitados	Camila Villavicencio, Nelson Velasquez, Juan Rivero de Aguilar
Descripción del curso	Este curso aborda aspectos evolutivos y mecanísticos en el estudio del comportamiento animal. Se discuten aproximaciones clásicas en Etología y Psicología Experimental, y se revisan las tendencias actuales, tanto mecanicistas como adaptacionistas. La mayor parte del curso aborda aspectos evolutivos y ecológicos en el estudio del comportamiento animal, enfatizando el valor adaptativo y el contexto ecológico de las conductas. Preguntas acerca de la historia evolutiva, desarrollo, mecanismos y valor adaptativo de las conductas son revisadas a la luz de evidencias teóricas y empíricas recientes. Se incluyen aspectos desarrollados para diversos taxa y herramientas analíticas como optimización y teoría de juegos. El curso abarca conceptos y teorías desarrollados a partir de otras disciplinas, incluyendo Biología Evolutiva, Fisiología, Genética, y Psicología comparada, entre otras.
Objetivos	Los estudiantes deberán lograr un conocimiento amplio de las tendencias actuales en investigaciones sobre Ecología del Comportamiento. Aprenderán a desarrollar modelos propios y a generar preguntas, profundizando un área específica. Además, los estudiantes deberán hacer presentaciones orales sobre trabajos científicos.
Contenidos	1. Introducción a la Biología del Comportamiento. Preguntas y aproximaciones. 2. Conceptos fundamentales en Biología del Comportamiento y Ecología del Comportamiento. 3. Evolución, adaptaciones conductuales y bases hereditarias de la conducta. Selección frecuencia-dependiente. 4. Obtención y uso de recursos. Uso del tiempo y la energía. 5. Toma de decisiones. Teoría de forrajeo. Optimización. Conductas frecuencia-dependientes. Teoría de juegos.

	6. Bases endocrinológicas del comportamiento 7. Selección sexual. Perspectivas funcionales y filogenéticas. Selección sexual y cuidado parental. 8. Sistemas de apareamiento. Dimorfismo sexual. 9. Comunicación animal. Tipos de Comunicación Animal. Relación estructural entre señal y receptor. 10. Evolución de las señales. El ambiente y sus influencias. 11. Defensas anti-depredatorias. Defensas individuales y sociales. Cooperación y conductas sociales no ligadas a parentesco. 12. Conducta y parasitismo. Parasitismo de nidada. Influencia de parásitos sobre el comportamiento. 13. Conductas sociales y selección de parentesco. Adecuación inclusiva. Reconocimiento de Parentesco. Nepotismo y evitación de endogamia. 14. Comportamiento humano, cultura y evolución.
Modalidad de evaluación	(a) Prueba 1 (35 %), (b) Prueba 2 (35 %) y (c) presentación de artículos (30 %, en 2 sesiones de seminarios, i.e., 15% c/u).
Bibliografía	Básica: Bolhuis, J. J. & Giraldeau, L.-A., eds. 2005. The behavior of animals: mechanisms, function, and evolution. Blackwell Publishing Ltd. Caro, T . 2005. Antipredator defenses in birds and mammals. The University of Chicago Press, Chicago, Illinois. Danchin, E., Giraldeau L.A. & Cezilly F., eds. 2008. Behavioural Ecology. Oxford University Press, New York. Davies N. B., Krebs, J. R. & West, S. A. 2012. An introduction to behavioural ecology, 4th edition. Wiley-Blackwell. Dukas, R. & Ratcliffe J. M. eds. 2009. Cognitive ecology II. The University of Chicago Press. Macedo, R. H. & Machado G. 2014. Sexual selection: perspectives and models from the neotropics. Academic Press. Wesneat, D.F. & Fox, C. W., eds. 2010. Evolutionary Behavioral Ecology. Oxford University Press, New York. Recomendada: Bateson P, Laland KN (2013) Tinbergen's four questions: an appreciation and an update. Trends in Ecology and Evolution 28: 712-718. (+ 2 comments). Monaghan P (2014) Behavioral ecology and the successful integration of function and mechanism. Behavioral Ecology 25: 1019-1021. Snell-Rood EC, Steck MK (2019) Behaviour shapes environmental variation and selection on learning and plasticity: review of mechanisms and implications. Animal Behaviour 147: 147-156. Dingemanse NJ, AJN Kazen, D Reale, J Wright (2010) Behavioural reaction norms: animal personality meets individual plasticity. Trends in Ecology and Evolution 25: 81-89. Jordan LA, Maguire SM, Hoffman HA, Kohda M (2016) The social and ecological costs of an 'over-extended' phenotype. Proceedings of the Royal Society Biological Sciences 283: 20152359. http://dx.doi.org/10.1098/rspb.2015.2359

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