

**Animal Behaviour**

Code: 100835  
ECTS Credits: 6

Degree	Type	Year	Semester
2500251 Environmental Biology	OT	4	0

**Contact**

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**Use of Languages**

Principal working language: spanish (spa)  
Some groups entirely in English: No  
Some groups entirely in Catalan: No  
Some groups entirely in Spanish: No

**Other comments on languages**

CLASSES WILL BE IN SPANISH IF THERE ARE FOREIGN STUDENTS

**Prerequisites**

It is important to have a good background in zoology and ecology

**Objectives and Contextualisation**

The main objective is to provide a general knowledge on animal behaviour from a mechanistic and evolutive point of view. The different visions of animal behavior will be presented, from mechanisms that explain a simple behaviour to the function and phylogeny of complex behavioral systems (also with a cognitive perspective). I will focus on the role of animal behavior as the motor and modulator of evolutionary processes and ecological solutions. Besides, I will expose how the ethological applications can be used in management, conservation of fauna and animal welfare.

**Competences**

- Adopt an ethical stance.
- Analyse and interpret the behaviour of living beings.
- Describe, analyse and interpret the vital adaptations and strategies of the principal groups of living beings.
- Develop a sensibility towards environmental issues.
- Develop planning and organisation skills.
- Identify and interpret the diversity of species in the environment.
- Obtain information, design experiments and interpret results.
- Recognise and analyse phylogenetic relations.
- Solve problems.

**Learning Outcomes**

1. Adopt an ethical stance.

2. Analyze quantitatively and interpret the evolutionary and functional meaning of animal behavior
3. Develop a sensibility towards environmental issues.
4. Develop planning and organisation skills.
5. Interpret the distribution and the interactions of animal species in the environment and their impact on animal diversity.
6. Interpret the evolutionary processes that have led to animal diversity.
7. Obtain information, design experiments and interpret results.
8. Recognise the characteristics of the environment that determine the distribution of the principal animal groups.
9. Solve problems.

## Content

1. History of the study of Animal Behavior. Concept of behavior
2. Methods and techniques to study the animal behavior.
3. Mechanisms of behavior control.
4. Animal Cognition
5. Behavior development. Learning
6. Life histories and optimization of behavior
7. Phylogeny, function and current adaptive value of behavior
8. Use of time and space. Feeding and species interaction
9. Animal communication
10. Social behavior
11. Reproductive behavior (sexual and parental care behavior)
12. Applied animal behavior
13. Behavior in plants

## Methodology

- Master classes with current topics related to animal behavior.
- Practical sessions are examples of actual individual solutions of some behavioral issues (measurements and analysis). At the end of the course, the student should know how to face critically any behavioral issue.
- Experiment is a critical component in training. It can be developed individually or in group (up to 3 students). It will consist of generating a question-based on hypotheses and predictions that will have to be answered by applying the scientific method. The student(s) must do a memory in a scientific article-format and must be defend it in the class. Exceptionally, it can carry on a literated-based review of a topic.
- Final Exam and second-chance examination.
- There will be also comprehensive reading of texts (that goes to the final exam).

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Masterclass	30	1.2	2, 6, 5, 7, 8
Practical session	15	0.6	2, 4, 7, 9
Type: Supervised			
Experiment	20	0.8	2, 1, 4, 6, 7, 9, 3
Type: Autonomous			

Mandatory readings	10	0.4	1, 5, 7
Study	71	2.84	1, 4, 6, 9, 3

## Assessment

1) One test with questions to develop the theoretical knowledge and several short multiple choice questions (4 points from 10).

2) Research experiment (value 5 points from 10).

3) Single Exam and Second chance examination.

In order to pass (5-10 points), it is necessary to get a minimum of 1.5 points in the test and the experiment regardless the mark got in the other sections.

It will be considered that a student will obtain the Non-Evaluable qualification if he / she carries out less than 2/3 of the evaluation activities.

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Experiment	50%	0	0	1, 4, 6, 5, 3
Practical session	10%	0	0	2, 4, 7, 8, 9
Test	40%	4	0.16	2, 4, 6, 5, 7, 9

## Bibliography

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Asensio Herrero, N. (2014). *Etología: la ciencia del comportamiento animal*.

Cachel, S. (2006). *Primate and human evolution* (Vol. 46). Cambridge: Cambridge University Press.

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Carranza, J. F. (2016). *Etología adaptativa: el comportamiento como producto de la selección natural*. Universidad de Córdoba.

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Fleagle, J. G. (2013). *Primate adaptation and evolution*. Academic Press.

Kraus, C. (2010). *Animal behaviour: Evolution and mechanisms* (pp. 655-684). P. M. Kappeler (Ed.). Springer.

Maestripieri, D. (Ed.). (2009). *Primate psychology*. Harvard University Press.

Manning, A., & Dawkins, M. S. (2012). *An introduction to animal behaviour*. Cambridge University Press.

Quesada, J. & Figuerola, J. 2010. *Potencia de una prueba estadística: aplicación e interpretación en ecología del comportamiento*. Etología. 22.19-36

Soler, M. (2011). *Adaptive Behaviour: Understanding the Human Animal*. (Recurso Web)

Strier, K. B. (2003). *Primate behavioral ecology: from ethnography to ethology and back*. *American Anthropologist*, 105(1), 16-27.