

**COURSE DATA****Data Subject**

<b>Code</b>	43253
<b>Name</b>	Animal welfare
<b>Cycle</b>	Master's degree
<b>ECTS Credits</b>	3.0
<b>Academic year</b>	2022 - 2023

**Study (s)**

<b>Degree</b>	<b>Center</b>	<b>Acad. year</b>	<b>Period</b>
2148 - M.D. in Biodiversity: Conservation and Evolution	Faculty of Biological Sciences	1	First term

**Subject-matter**

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
2148 - M.D. in Biodiversity: Conservation and Evolution	5 - Cross-disciplinary optional subject areas 1	Optional

**Coordination**

<b>Name</b>	<b>Department</b>
CARAZO FERRANDIS, PAU	355 - Zoology
FONT BISIER, ENRIQUE	355 - Zoology

**SUMMARY**

Animal welfare is quickly becoming a concern across the globe. Throughout history, many cultures have included traditions of respect to animals (and still do), but the science of animal welfare is very recent. What impact does our way of life have on the welfare of animals? Is this justified? How can we improve animal welfare? The aim of this subject is to introduce the science of animal welfare with a special focus on its measurement and improvement. As such, the contents of this subject are fundamentally ethological (i.e., applied ethology).

**Related subjects:** The subject “Ethology” is included in the BSc in Biological Sciences of the Universitat de València, while the subject “Behavioural Ecology” is included in this same MSc. Although there is not much overlap between these subjects and “Animal Welfare” (~10%), the former introduces key concepts and a desirable theoretical background for this subject.



## PREVIOUS KNOWLEDGE

### Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

### Other requirements

Prior knowledge in animal behaviour and evolutionary biology is desirable.

An intermediate knowledge of English (Reading comprehension, in particular) is very desirable.

## OUTCOMES

### 2148 - M.D. in Biodiversity: Conservation and Evolution

- Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.
- Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.
- Be able to access the information required (databases, scientific articles, etc.) and to interpret and use it sensibly.
- Be able to access to information tools in other areas of knowledge and use them properly.
- Stimulate the capacity for critical reasoning and for argumentation based on rational criteria.
- Awaken interest in the social and economic application of science.
- Favour intellectual curiosity and encourage responsibility for one's own learning.
- Encourage ethical commitment and environmental awareness.

## LEARNING OUTCOMES

- Students should be able to communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences, clearly and unambiguously.
- Students should be able to make quick and effective decisions in professional or research practice.
- Students should be able to access the information required (databases, scientific articles, etc.) and to interpret and use it sensibly.



- Stimulate the capacity for critical reasoning and for argumentation based on rational criteria.
- Favour intellectual curiosity and encourage responsibility for one's own learning.
- Students should be able to communicate and disseminate scientific ideas.

## DESCRIPTION OF CONTENTS

### 1. Fundamentals of animal welfare science

- Topic 1: Morality and animal welfare.
- Topic 2: Brief history of animal welfare science.
- Topic 3: Anthrozoology, anthropozology, anthropocentrism and anthropomorphism.

### 2. Animal welfare problems and measures

- Topic 4: Animal health and welfare.
- Topic 5: Stress and animal welfare.
- Topic 6: Motivation and preferences.
- Topic 7: Stereotypies and abnormal behavior.
- Topic 8: Pain and nociception.
- Topic 9: Emotions.
- Topic 10: Animal consciousness.

### 3. Improvement of animal welfare

- Topic 11: Research and animal welfare.
- Topic 12: Conservation and animal welfare.
- Topic 13: Environmental enrichment.



## WORKLOAD

ACTIVITY	Hours	% To be attended
Laboratory practices	16,00	100
Theory classes	14,00	100
Study and independent work	27,00	0
Preparing lectures	18,00	0
<b>TOTAL</b>	<b>75,00</b>	

## TEACHING METHODOLOGY

**Initial introductory class for instructors and students:** during the first in-class session, the course syllabus, the teaching methodology and the assessment criteria will be explained. During this session the instructors will inform the students of their research and teaching interests. Students will also be asked to explain their interest in the track and in their chosen courses and to briefly explain their scientific and academic profile.

**Participatory lectures:** organized in 1/2-hour sessions during which the instructor will identify and present the most important points of each topic using a flexible scheme of lectures with the necessary audio-visual infrastructure. Students are encouraged to participate actively in the development of the classes.

**Talks/seminars given by students:** students will prepare individually or, preferably in pairs, a seminar to be presented to the rest of the class in a classroom with the necessary audio-visual infrastructure. The seminar will be held in one of the two seminar sessions specified in the course schedule. The seminar will consist of a critical commentary of a research article in animal welfare. Attendance to the seminars is mandatory.

**Case studies in animal welfare:** organized in a couple of 2h sessions, during which the teacher will present a series of real-case studies to be discussed with the students. For the second session, students will be presented with novel case studies and asked to design methods to measure and improve the welfare of the animals in such case studies. The main aim of this final part of the syllabus is for students to review and apply all they have learnt.

We reserve the right to modify the syllabus to accommodate contingencies or special circumstances, to better facilitate class learning, or to delve more deeply into topics of interest to the class.

## EVALUATION

For the first evaluation:



Seminars (25%)

Case-studies (25%)

Exam (40%)

Class exercises and participation (10%)

For the second evaluation:

Exam (70%)

Seminars (30%)

All students must achieve a minimum grade of 4/10 in the exam.

## REFERENCES

### Basic

- Appleby, M. C. et al. (2011). Animal Welfare. 2nd Edition. CABI.
- Appleby, M. C. et al. (2018). Animal Welfare. 3rd Edition. CABI.
- Alcock, J. (2009). Animal Behavior: An Evolutionary Approach, 9th ed. Sunderland, Massachusetts: Sinauer Assoc. Press.
- Beauchamp et al. (2014). The Oxford Handbook of Animal Ethics. Oxford University Press.
- Fraser, D. (2008). Understanding Animal Welfare. 1st Edition. Wiley.
- Hosey, G. (2019). Anthrozoology: Human-Animal Interactions in Domesticated and Wild Animals. Oxford University Press.
- Fraser, D. (2008). Understanding Animal Welfare. Wiley-Blackwell.
- Krebs, J.R. & Davies, N.B. (1993). An Introduction to Behavioural Ecology, 3rd ed. Oxford: Blackwell.
- Tobias, M.C. et al. (2018). Anthrozoology: Embracing Co-Existence in the Anthropocene. Springer.

### Additional

- Se irá proporcionando un listado amplio de bibliografía complementaria a cada tema conforme avance el temario.