Study Plan

School: School of Sciences and Technology
Degree: Master
Course: Conservation Biology (cód. 473)

1st Year - 1st Semester

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
BIO10181M	Assessment of Conservation Priorities	Biological Sciences	6	Semester	156
BIO10182M	Biodiversity and Conservation	Biological Sciences	6	Semester	156
BIO10183M	Conservation of Mediterranean Vegetation	Biological Sciences	6	Semester	156
BIO10184M	Project and Seminar I	Biological Sciences	3	Semester	78

Group of Options

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
MAT07367	Sampling Biological Populations	Mathematics	6	Semester	156
BIO07368M	Biology of Macro Fungi	Biological Sciences	3	Semester	78
BIO10696M	Advanced Studies in Biodiversity and Nature Conservation	Biological Sciences	3	Semester	78
BIO07370	Conservation Genetics	Biology	3	Semester	78

Group of Options

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
PAO07371	System Analysis and Ecological Modeling	Environment and Ecology Sciences	6	Semester	156
PAO07372	Spatial Analysis	Geosciences	6	Semester	156
PAO07375	Landscape Characterisation and Interpretation	Environment and Ecology Sciences	6	Semester	156

1st Year - 2nd Semester

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
BIO10185M	Management and Conservation of Terrestrial Faunal Cummunities	Biological Sciences	6	Semester	156
PAO07756	Decision Aid Methodologies	Environment and Ecology Sciences	5	Semester	130
BIO10186M	Project and Seminar II	Biological Sciences	3	Semester	78

Group of Options

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
BIO07373	Biogeography and Ecology of Bird Communities	Biology	4	Semester	104
BIO07374	Biology and Conservation of Mammals	Biology	4	Semester	104
BIO07376	Conservation of the Iberian Herpetofauna	Biology	4	Semester	104
BIO07377	Conservation of Terrestrial Macroinvertebrates	Biology	4	Semester	104
BIO07378	Ecology of Linear Structures	Biology	4	Semester	104
BIO07379	Structure and Behaviour of Vegetal Communities	Biology	4	Semester	104
BIO07380	River Rehabilitation for Fish	Biology	4	Semester	104
BIO07381	Fauna Sampling Methods	Biology	4	Semester	104
BIO07382	Vegetation Sampling Methods	Biology	4	Semester	104

1st Year - 2nd Semester

Component code	Name	Scientific Area Field	ECTS	Duration	Hours

2nd Year - 3rd Semester

Component code	Name	Scientific Area Field	ECTS	Duration	Hours
Dissertation					

Conditions for obtaining the Degree:

*** TRANSLATE ME: Para aprovação na componente curricular deste Mestrado, é necessário a aprovação (através de avaliação ou creditação) das seguintes unidades curriculares:

1.º Semestre

- 4 UC Obrigatórias num total de 21 ECTS

- 1 UC Optativa do Grupo I

- 1 UC Optativa do Grupo II

2.º Semestre

- 3 UC Obrigatórias 14 ECTS{\}newline

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- 4 UC Optativas do Grupo III

Para obtenção do grau, é necessário também a aprovação em Dissertação com o total de 40 ECTS, no 3.º Semestre. ***

Program Contents

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Assessment of Conservation Priorities (BIO10181M)

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Biodiversity and Conservation (BIO10182M)

1. Human Population Growth and Environmental degradation
2. Main Guidelines in Conservation Biology
3. Biodiversity: losses and threatens
4. Population Viability Analysis
5. Conservation Legislation
6. Protected and classified areas
7. Global changes
8. Ecology, sociology, politics and economy

The role of people in conservation

Quantifying economic value of Biodiversity

9. Sustainable development
10. Landscape and conservation
11. Agriculture and conservation

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Conservation of Mediterranean Vegetation (BIO10183M)

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Project and Seminar I (BIO10184M)

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Sampling Biological Populations (MAT07367)

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Biology of Macro Fungi (BIO07368M)

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Advanced Studies in Biodiversity and Nature Conservation (BIO10696M)
This postgraduate course has an exceptional feature, whether by is very specialized contents or because there is no fixed planning lectures on Biodiversity and Nature Conservation. Each advanced course depends on the favourable conditions each year (scientific meetings, scientific cooperation agreements, large projects research, free courses, visitors or invited researchers, etc.).

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System Analysis and Ecological Modeling (PAO07371)

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Spatial Analysis (PAO07372)

Back
Landscape Characterisation and Interpretation (PAO07375)

Back
Management and Conservation of Terrestrial Faunal Cummunities (BIO10185M)
Introduction to wildlife management.
The scope of Conservation Biology.
Ecological processes
Communities and ecosystems: interactions and disturbances.
Ecosystem approach to conservation.
Conservation action plans: models; typologies; examples; eradication; control; maintenance; recovery.
Conservation plans - species practical examples
Fauna in urban areas.
Agricultural practices and maintenance of wildlife.
Invasive species and control of exotic wildlife
Fauna recovery in captivity and animal recovery.
Habitat rewilding through the domestic fauna.

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Decision Aid Methodologies (PAO07756)

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Project and Seminar II (BIO10186M)

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Biogeography and Ecology of Bird Communities (BIO07373)

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Biology and Conservation of Mammals (BIO07374)

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Conservation of the Iberian Herpetofauna (BIO07376)

Iberian amphibians:
- Biogeography, phylogeny and classification.
- Aquatic habitats and favourable ecotypes.
- Perspectives of conservation.

In a route of collision: the amphibians and roads
Conservation plans (examples) of Iberian amphibians.
Conservation of the priority habitat - Mediterranean temporary ponds.
Creating artificial ponds for amphibians.

Reptiles Iberian:
- Biogeography, phylogeny and classification.
- Terrestrial habitats (and semi-aquatic ones) and favourable ecotypes.
- Perspectives of conservation.

Conservation of sea turtles.
Habitat manipulation for the conservation of herpetofauna.
Terrariums, pet trade and introduction of exotic reptiles
Ecology of linear infrastructure and herpetofauna

Back

Conservation of Terrestrial Macroinvertebrates (BIO07377)

The evolutionary success of terrestrial macroinvertebrates and its overall biodiversity, past and present conservation of terrestrial macroinvertebrates; the emergence of conservation biology of macroinverbrates; levels of analysis: scale, fragmentation and destruction of habitats, species and their conservation, biological pest control and conservation, the ethical value of macroinvertebrates; action plans: habitats and their evaluation.

Back

Ecology of Linear Structures (BIO07378)

Back

Structure and Behaviour of Vegetal Communities (BIO07379)

Agroforestry ecosystems and environment: energy flows, water and nutrients.
Vegetation structure, productivity and dynamics of forest biomass: carbon acquisition and respiration.
Responses to environmental stresses of Mediterranean vegetation.
Responses to external disturbances: fire, pruning, drought, herbivory, pests and diseases
Regeneration of Mediterranean vegetation.
Methods and equipment in ecophysiology (forests).

Back

Fauna Sampling Methods (BIO07381)

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Vegetation Sampling Methods (BIO07382)

1. Vegetation (herbaceous, shrub and tree) attributes - specific composition and abundance: frequency, coverage, density
2. Vegetable diversity
2.1 Indices of species diversity
2.2 Functional diversity
3. Actual vegetation
3.1 Methods of floristic surveying for herbaceous, shrub and trees
3.2 Analysis of plant communities (inventorying, mapping, classification and ordination; cartography)
4. Structural diversity of vegetation - horizontal and vertical structure
4.1. Physiognomy and architecture
4.2 Phenology, growth and productivity
5. Phytosociological surveying
6. Woody species surveying
7. Potential vegetation - seed harvesting and soil seed bank analysis