

MASTER'S DEGREE IN WILDLIFE MANAGEMENT, CONSERVATION AND CONTROL (LM-86) A.Y. 2023/2024

GENERAL INFORMATION	
Class of degree:	LM-86 Scienze zootecniche e tecnologie animali (<i>Zootechnical Sciences and Animal Technologies</i>)
Released title:	Master's degree
Duration :	2 years
Total ECTS:	120
Access:	Free
Language:	English
Address:	Department of Veterinary Medicine, via Vienna 2, Sassari

ORGANIZATION

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Course website: www.uniss.it/wildlife

E-learning website: www.evet.uniss.it

Course account: wmcc@uniss.it

COURSE FEATURES

These regulations apply to the teaching activities and management of the international Master course in Wildlife Management Conservation and Control (WMCC) belonging to the LM-86 class at the University of Sassari. WMCC is based at the Department of Veterinary Medicine, in Via Vienna 2, Sassari, Italy.

The course duration is two years. Official language of the course is English.

General and specific learning objectives

Learning objectives of the WMCC Master programme include:

- acquiring the scientific bases and the adequate theoretical-practical preparation to responsibly manage and preserve wildlife populations;
- acquiring a level of professional awareness, decisional and operative autonomy to address issues concerning terrestrial and aquatic fauna;
- acquiring skills in the use of techniques to monitor wildlife populations in relation to demographic, behavioural, genetic and sanitary aspects and the competence to analyse gathered data;
- acquiring the ability to properly assess and manage the health status of wildlife populations in relation to the main infectious diseases and parasitosis and to guarantee animal welfare in any management actions;
- acquiring knowledge on physiological and genetic adaptations to environmental changes influencing the viability of wildlife populations;
- learning how to apply the principles of economics in the management of natural resources and acquiring ability to identify and address the main conflicts between wildlife and human activities;
- learning how to communicate properly and clearly and how to take decisions with an evidence-based approach.

Professional profile and job opportunities

The professional profile of students completing the WMCC master's degree programme is the Wildlife Manager, i.e. an expert in wildlife management. Specifically, the master graduate will be skilled in:

- conservative and productive management of wild animal populations;
- control and prevention of wildlife diseases both in free-ranging and in captive populations;
- planning, implementation and management of ex-situ and in-situ conservation programmes;
- planning, implementation and management of conservation translocations following IUCN guidelines;
- mitigation of wildlife-human conflicts.

Students achieving a master's degree in WMCC have career opportunities in all private and public positions requiring a solid expertise in wildlife biology and in the administration, management, and conservation of wild animal resources. Graduates can typically find a job in a variety of wildlife-related institutions and enterprises such as:

- international and national public bodies responsible for conservation, management and control of wildlife (e.g., parks, fish and wildlife agencies);
- international and national public bodies dealing with public safety and health (veterinary services, food safety agencies, environmental risk agencies);
- international and national bodies responsible for managing the natural heritage;
- companies, professional studios and private consortia engaged in the collection of wildlife data, in impact and strategic assessments, or in the planning of environmental restoration interventions;
- public and private institutions engaged in teaching and in the dissemination of scientific culture (schools, university, education and training centres).

Access requirements

The WMCC Master's course is open to students possessing a Bachelor degree and a sufficient background on some core disciplines. The following requirements have to be met for the enrolment:

- English level B2 (certificated or assessed during the entry test)
- a first-level (Bachelor) degree recognized at European level or an equivalent title in Biology, Natural Sciences, Environmental Sciences, Forestry, Animal Breeding, or Veterinary Medicine;
- alternatively, a different first-level (Bachelor) degree providing an academic background that includes a minimum of 36 ECTS credits in the following core disciplines: anatomy, physiology, microbiology, parasitology, zoology, ecology, and genetics (for Italian students, SSD: VET/01, VET/02, VET/05, VET/06, BIO/05, BIO/07, BIO/18, AGR/07, AGR/16).

Students are requested to provide a documentation proving the fulfilment of the abovementioned requirements. The secretary office will evaluate the documentation and feedback will be given on the possible admission to the Master's Course.

Students have time to achieve the above-mentioned title/credits by December 31st, and in the meantime they can temporarily be admitted and proceed with a conditional registration to the Master's Course. In any case, the enrolment procedure must be completed by mid January.

Admission is conditional upon possession of a B2 level of knowledge of the English language.

Before enrolling to WMCC, the student is submitted to an entry test consisting of a multiple choice test on some basic topics (anatomy, physiology, zoology, ecology, genetics, microbiology) and an interview aimed at evaluating the knowledge of English language. The multiple-choice test does not affect the student's admission but is only aimed at assessing the initial preparation. The English level B2 (or higher) can be also proven by having passed university examinations of equivalent level or submitting a corresponding (Common European Framework of Reference for languages - CEFR) certificate.

Useful links to the enrolment procedure:

<https://veterinaria.uniss.it/it/node/2480>

<https://www.universitaly.it/index.php/students/stranieri>

Structure of the course

The master course consists of 120 credits overall, spread over a two-year programme.

The course is divided into 4 semesters, with a total of 77 credits (ECTS) delivered with teaching activities to acquire theoretical-practical knowledge.

Teaching activities comprehend a group of disciplines that are typical of zootechnical and veterinary courses, combined with a group of disciplines addressing the course towards the management and conservation of wild animals. Moreover, an English language course is included to improve and harmonize the students' linguistic skills.

In addition, to achieve the master's degree, the student must acquire:

- 8 ECTS from individually selected activities (Optional activities);
- 12 ECTS for the traineeship
- 23 ECTS for the preparation of the final thesis.

Teaching modalities

Teaching modules are delivered through the following modalities:

- face to face or blended lectures;
- interactive teaching (small groups of students coordinated by the lecturer who interact about a specific topic);
- laboratory activities to practice in the fields of genetics physiology, parasitology and microbiology;
- outdoor activities to learn field methodologies applied to wildlife management (counting, sampling, catching, etc.);
- classroom practical activities to train on data analysis (demographic, ecological, genetic);
- seminars/webinars held by invited lecturers or visiting scientists on selected topics.

Specific teaching activities can be delivered using the distance learning format.

Attendance obligation

Students are encouraged to attend all teaching activities, although this is not compulsory to pass the exams.

Exams

Individual preparation on each teaching activity is assessed by a final exam (oral or written) and, where applicable, by intermediate knowledge tests or by the presentation and discussion of a scientific essay. For each course a single mark is assigned that will be expressed in thirtieths.

Optional activities

The course offers the opportunity to develop skills on specific optional topics chosen by the student. These selected activities can be chosen from a range of teaching activities offered each year by the WMCC course or by other courses of the University of Sassari. Students are warmly encouraged to select activities that are tailored by the WMCC course to develop complementary skills with respect to the mandatory ones.

Traineeship

The traineeship is a compulsory activity consisting of 300 hours (12 ECTS) that can be carried out at the Department of Veterinary Medicine or at other public or private entities, in Italy or abroad. The student who is willing to start a traineeship has to submit a request indicating the hosting structure, content and schedule of the training and a reference person (supervisor) belonging to the WMCC staff. This activity can be propaedeutical to the thesis work and be conducted in the same structure.

The Department of Veterinary Medicine has signed a number of agreements with companies, training and research centres and other organizations that offer a wide range of traineeship opportunities to WMCC students.

Master thesis and final examination

Approaching the end of his/her study the student should submit a thesis proposal, agreed with a member of the WMCC teaching staff (internal supervisor). The master thesis must represent an experimental activity conducted under the supervisor's guidance, followed by the analysis of collected data and the writing (in English) of an original paperwork. The experimental activity of the thesis can also be carried out at external structures, provided that the scientific quality of the activity is assured by an external supervisor.

The final examination focuses on the discussion of the thesis by the student in front of a degree commission composed by WMCC staff members. To be admitted to the final examination the student has to have taken all the examinations set out in the study plan and have obtained a total of 197 ECTS.

The final mark, out of a total of 110, will be based on:

- the average mark, out of 110, based on the marks of the overall curriculum;
- the score allocated by the degree commission on the basis of the thesis quality and originality, quality of the presentation and communication skills (up to 5 points);
- 2 bonus points to whom gets the degree within the regular duration of the master course;
- up to 2 bonus points to whom has had study experiences abroad within mobility programmes like Erasmus or Ulisse (1 point for periods up to 3 months, 2 points for periods longer than 3 months);
- 0.5 points for participation to university committees in quality of student delegate during the period of the master course.

Candidates getting an overall mark of 110 or more can obtain full marks with honours (110 cum laude), only when proposed and unanimously approved by the commission. In the case of particularly meritorious theses, the degree commission can also propose a "mention".

STUDY OPPORTUNITIES ABROAD

The University of Sassari strongly supports international mobility by providing its students with the opportunity to spend study and traineeship periods abroad. It is a unique chance to enrich the student's educational path in an exciting new environment.

Agreements entered with many foreign universities under the European Erasmus+ programme allow regularly enrolled students to carry out part of their study at one of the partner European universities. Similar international mobility opportunities are provided outside Europe, within the Ulisse mobility programme.

Specific agreements can also be arranged, under student's request, with foreign institutions available to host him/her for an internship period (e.g. within the Erasmus+ Student Mobility for Traineeship – SMT programme).

The Department of Veterinary Medicine provides a supporting desk to students interested in both incoming and outgoing international mobility programmes. The desk is managed by Dr. Angela Ballone (anballone@uniss.it), who supports the students in the choice of the mobility programs, welcomes and manages the requests of foreign students interested in organizing a study/internship period, and assists both incoming and outgoing students in the drafting of learning agreements. Students can also contact the Erasmus delegate for the Department, Prof. Domenico Meloni (dmeloni@uniss.it).

WMCC students can participate in mobility programmes, through a public selection procedure.

A call for application is published each year (calls are often reopened if the allocated funds have not been exhausted).

The call specifies possible destinations, with the respective programme duration, requirements and deadlines.

The European Union grants the winners of the Erasmus+ programme selection a scholarship.

More information on mobility programmes is available at

<https://en.uniss.it/internationalisation/international-programmes>

Promotional videos of the WMCC Course:

<https://youtu.be/jOJmhBE1jcU>

<https://youtu.be/EBEvzHmtNko>

1° YEAR						
1 st semester (a.y. 2023/2024)						
CAT.	SSD	SUBJECTS	Hours			ECTS
			Lect	Pract	Lab	
C	BIO/05	Wildlife Management	48	16		8
B	AGR/18	Wildlife Nutrition and Feeding	24	16	8	6
C	BIO/05	Animal Conservation Genetics	32	8	8	6
B	VET/02	Biotechnologies applied to Wildlife Reproduction	40	8		6
		English Language (Advanced)	16	50		6

2 nd semester (a.y. 2023/2024)						
CAT.	SSD	SUBJECTS	Hours			ECTS
			Lect	Pract	Lab	
B	VET/05	Microbial Infections and Control of Infectious Diseases	32	8	8	6
B	AGR/01	Environmental Evaluation and Natural Capital	40	8		6
C	BIO/05	Wildlife Management Techniques		48		6
B	VET/06	Wildlife Parasitosis	32	8	8	6

2° YEAR						
3 rd semester (a.y. 2024/2025)						
CAT.	SSD	SUBJECTS	Hours			ECTS
			Lect	Pract	Lab	
B		Reintroductions and Other Conservation Translocations				
	VET/02	<ul style="list-style-type: none"> Stress and Animal Welfare 	24	16	8	6
	VET/02	<ul style="list-style-type: none"> Morphological and Physiological Adaptation to Environmental Changes 	32	40		9
C	BIO/05	Ichthyology	24	16	8	6
		Optional Activities* (can be attended freely during the 1 st or 2 nd year)				8

4 th Semester (a.y. 2024/2025)			
CAT.	SSD	SUBJECTS	ECTS
		Traineeship	12
		Master's Thesis	23
		<ul style="list-style-type: none"> Experimental Activity 	(16)
		<ul style="list-style-type: none"> Thesis writing 	(4)
		<ul style="list-style-type: none"> Final Dissertation 	(3)

Total ECTS

120

* Optional Activities

To the students matriculated in the academic year 2023/2024, the following optional courses will be offered (in the case of a sufficient number of participants):

1st semester

- Statistics for Wildlife Ecologists (4 ECTS)
- GIS applications in wildlife management (4 ECTS)

2nd semester

- Wildlife-pathogens integrated monitoring (2 ECTS)
- Toxicology of Contaminants and Poisonings (2 ECTS)
- Advanced Statistics for Wildlife Ecology and Management (4 ECTS)

3rd semester

- Conservation and Genetic Monitoring of Wild Predators (2 ECTS)
- Genomic data analysis for conservation and risk assessment (4 ECTS)
- Bioinformatic tools for marine biologists (4 ECTS)