Syllabus

Course Description

Course Title	Basic knowledge of beekeeping and bee ecology
Course Code	89139
Course Title Additional	
Scientific-Disciplinary Sector	AGRI-05/A
Language	Italian
Degree Course	Studium Generale - basic course
Other Degree Courses (Loaned)	
Lecturers	Prof. Sergio Angeli, Sergio.Angeli@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/27643
Teaching Assistant	
Semester	Second semester
Course Year/s	1
CP	3
Teaching Hours	18
Lab Hours	0
Individual Study Hours	
Planned Office Hours	
Contents Summary	
Course Topics	The course covers the following topics: 1. Introduction to beekeeping and the ecological role of bees 2. Classification and biodiversity of the Apoidea 3. The evolution of social behaviour in pollinating insects 4. Anatomy and physiology of Apis mellifera 5. Colony organisation, pheromones, communication and orientation. Ethology and ecological adaptations of bees 6. Honeybee breeds: characteristics and distribution 7. Bees and pollination: ecological and agricultural roles

	8. Bees as environmental bioindicators 9. Bees and humans: from myth to science 10. Bee products: honey, beeswax, royal jelly, propolis, venom 11. Types of honey and an introduction to melissopalinology 12. Types of hives and beekeeping equipment; selection and setting up of the apiary 13. Hive inspection and seasonal beekeeping practices 14. Spring management and swarm prevention, summer management, honey harvesting and migratory beekeeping, autumn and winter colony management 15. Bee diseases: symptoms and prevention. Bacterial and viral diseases: American and European foulbrood and viral diseases. Varroa destructor: biology, spread and control strategies 16. Practical activities and workshops (anatomy, physiology, honey analysis) 17. Educational visits to professional apiaries and research centres
Keywords	
Recommended Prerequisites	
Propaedeutic Courses	Students should be familiar with the basic concepts of biology, zoology and general entomology. However, these requirements are not strictly compulsory.
Teaching Format	This is a theoretical and practical course in which the topics are presented by the lecturer. The practical sessions, laboratory activities and field trips are explained by the lecturer and, where appropriate, by the teaching assistant. Generally, PowerPoint presentations are made available online, in the restricted-access area, one day before each individual lecture. The lecturer will provide additional material. Attendance at lectures is strongly encouraged.
Mandatory Attendance	
Specific Educational Objectives and Learning Outcomes	
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	The exam will be a written test consisting of questions covering the topics discussed in class and during the practical sessions.

Evaluation Criteria	A single final mark will be awarded, taking into account the clarity of the answers, the ability to summarise, the relevance of the arguments and the relevance of the topics covered.
Required Readings	
Supplementary Readings	
Further Information	
Sustainable Development Goals (SDGs)	