

General information	
Academic subject	Botany – Module of the integrated course in Biology
Degree course	Veterinary Medicine
Academic Year	2021/2022
European Credit Transfer and Accumulation System (ECTS)	2
Language	Italian
Academic calendar (starting and ending date)	I Bimester
Attendance	Mandatory

Professor/ Lecturer	
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Department and address	Veterinary Medicine Campus – Valenzano (BA)
Virtual headquarters	Microsoft Teams code: uzb05kf
Tutoring (time and day)	Tuesdays and Wednesdays 9-11 a.m. by appointment (phone or e-mail)

Syllabus	
Learning Objectives	Provide the student with the scientific knowledge and theoretical-practical skills necessary for practicing the medical veterinary profession in all relevant sectors.
Course prerequisites	Being a first year and a first bimester exam, there are no specific prerequisites other than those required for the access to the degree course.
Contents	The contents provided refer to the Basic Sciences and are divided as follows: 1) Introduction: the Plant Kingdom and the Archaeplastida; the endosymbiotic theory; the concept of plant organism; 2) Cytology: the plant cell; plastids; cell wall; vacuole; 3) Morphological and anatomical structure: primary and secondary meristematic and adult tissues; general organization, functions and specializations of the main plant organs; 4) Reproduction and development: Spermatophytes; life cycle of Angiosperms; vegetative reproduction; sexual reproduction: the flower, pollination and fertilization, development of the fruit and dissemination; the seed: morphology and anatomy of the seed in Monocotyledons and Dicotyledons; hypogeal and epigeal germination; 5) Plants of veterinary importance.
Books and bibliography	Struttura e funzione nelle piante (Structure and function of plants). ISBN: 978-88-299-2211-6 (ed. Piccin). Authors: Raven, Johnson, Mason, Losos, Singer.
Additional materials	Multimedia presentations used by the teacher during lessons are available as a support.

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
50	16	0	34
ECTS			

2	2	0	
Teaching strategy			
		The course, aimed at acquiring knowledge in the field of general botany and plants of veterinary importance, is structured in lectures for which the teacher uses multimedia presentations. The course is not delivered in e-learning mode.	
Expected learning outcomes			
Knowledge and understanding on:		<p>To acquire knowledge about the biology of plant organisms, with reference to those of veterinary importance. In particular:</p> <ul style="list-style-type: none"> ○ To understand the cytological, anatomical and functional characteristics of plants and to be able to correlate structure and function ○ To know the reproductive mechanisms and how to interpret the life cycle ○ To know the differentiation methods of cells, tissues and organs aimed at performing specialized functions and the evolutionary path that led to current forms 	
Applying knowledge and understanding on:		<ul style="list-style-type: none"> ○ To develop the ability to carry out specific activities aimed at studying the biology of plant organisms ○ To acquire the ability to recognize their structural organization and their functional processes in relation to the environment ○ To understand the basic elements for the management of natural and non-natural plant resources, with particular reference to plants of veterinary importance 	
Soft skills		<ul style="list-style-type: none"> • Making informed judgments and choices <ul style="list-style-type: none"> ○ To collect and critically interpret scientific data in the botanical field, describe and compare them ○ To propose generalizations ○ To apply the acquired knowledge to a proposed problem • Communicating knowledge and understanding <ul style="list-style-type: none"> ○ To present the acquired knowledge with a vocabulary and terminology appropriate to the discipline ○ To exchange information and interact with other people • Capacities to continue learning <ul style="list-style-type: none"> ○ To understand and critically discuss important aspects of plant biology ○ To extend autonomously the acquired knowledge by reading and understanding specific texts ○ To use the newest topics of scientific papers related to the field of interest 	
Assessment and feedback			
Methods of assessment		The assessment of a student is based on an oral examination; participation in lessons and classroom discussions during the course will also be taken into account. The exam consists of: 1) presentation of a plant of veterinary importance with its botanical aspects; 2) a series of three to four questions that require the discussion of a topic, linked with other topics in order to evaluate the acquired knowledge, reasoning and communication skills, the ability to solve practical problems. Overall, communication skills, the ability to link different topics and to synthesize are evaluated.	
Evaluation criteria		<ul style="list-style-type: none"> • Knowledge and understanding <ul style="list-style-type: none"> ○ To know appropriately, correctly and congruently the topics of the course with particular regard to cytological, histological, morphological/functional, ecological and environmental aspects • Applying knowledge and understanding <ul style="list-style-type: none"> ○ To talk about a plant of veterinary importance, evaluating the cytological, 	

	<p>histological, anatomical characteristics, relating them to the environment</p> <ul style="list-style-type: none"> • Autonomy of judgment <ul style="list-style-type: none"> ○ To create logical connections in the exposition and consequentiality in the connection of contents ○ To establish a coherent general discourse with appropriate links with a multidisciplinary connotation • Communication skills <ul style="list-style-type: none"> ○ To appropriately use a specific language and the synthesis ability, also through the graphic expression of notions and concepts (e.g. schemes and drawings) • Capacities to continue learning <ul style="list-style-type: none"> ○ To discuss problems in a constructive manner and to solve situations related to plants, demonstrating an in-depth analysis of the issues carried out autonomously by consulting specific scientific publications and databases.
<p>Criteria for assessment and attribution of the final mark</p>	<p>The final mark of the Biology exam (integrated course) is expressed out of thirty and derives from the arithmetic mean of the marks obtained in the two modules of Zoology and Botany. The exam is passed when the grade is greater than or equal to 18. Knowledge and understanding, even applied, are essential for passing the exam. The development of transversal skills related to autonomy of judgment, communication skills and capacities to continue learning allows the student to achieve a high evaluation. Honors are awarded in case of strongly positive evaluation in both modules of the Biology course and are decided unanimously by the Examination Commission.</p>
<p>Additional information</p>	