

COURSE OF STUDY: Primary teacher education

ACADEMIC YEAR: 2023-2024

ACADEMIC SUBJECT: Elements of Applied Environmental Botany

General information	
Year of the course	III
Academic calendar (starting and ending date)	First semester of the academic year 2023-24
Credits (CFU/ETCS):	6+1
SSD	BIO03
Language	Italian
Mode of attendance	Attendance requirement only for laboratory hours

Professor/ Lecturer	
Name and Surname	Valeria Maria Federica Tomaselli
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Department and address	Dipartimento di Bioscienze, Biotecnologie e Ambiente, Palazzo di Biologia Vegetale (primo piano, stanza 15), Campus Universitario, via Orabona 4, Bari
Virtual room	Teams code: dsnibla
Office Hours (and modalities: e.g., by appointment, on line, etc.)	Wednesday, 12.00 -14.00 or on other days and times, by appointment by e-mail. University campus, Via E. Orabona 4, Dipartimento di Biologia, Palazzo di Biologia Vegetale (primo piano, room 15).

Work schedule			
Hours			
Total	Lectures	Hands-on (laboratory, workshops, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
175	45	10	120
CFU/ETCS			
7	6	1	

Learning Objectives	Acquisition of fundamental knowledge on plant biology, plant biodiversity, and on nature conservation. Students should achieve the ability to apply the acquired knowledge in developing educational paths and training projects in primary school
Course prerequisites	Basic naturalistic knowledge

Teaching strategie	Lectures, laboratory activities
Expected learning outcomes in terms of	
Knowledge and understanding on:	<ul style="list-style-type: none"> ○ Analytical knowledge in the field of plant biology ○ Skills in interdisciplinary connections ○ Knowledge of methodologies for the construction of educational paths in plant biology in the primary school

Applying knowledge and understanding on:	<ul style="list-style-type: none"> ○ Ability to process the knowledge acquired and the experiences gained during the course to develop specific educational programs
Soft skills	<ul style="list-style-type: none"> ● <i>Making informed judgments and choices</i> <ul style="list-style-type: none"> ○ Ability in critically rethinking the acquired knowledge as a function of a professional competence of autonomous judgment especially in particular educational situations ○ Confidence in the fundamental themes of plant biology ○ Promotion of didactic experiences, including those in the laboratory and observations in nature ● <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> ○ Ability to disseminate the knowledge acquired on methods and contents of plant biology to primary school students ○ Capacity for constructive discussion on the main subjects of the discipline ● <i>Capacities to continue learning</i> <ul style="list-style-type: none"> ○ Learning skills necessary to deal with the further acquisition of information and knowledge in relation to the evolution of the discipline
Syllabus	
Content knowledge	<p>The plant cell. Plant tissues and organs. Ontogenetic cycle and reproduction in higher plants. Systematic botany - plant evolution and diversity. Medicinal, dyeing and textile plants; plants as a food source. Flora, vegetation and plant landscape. Herbaria and botanical gardens. Nature conservation, protected natural areas and gene banks. Methods for the development of didactic paths in the main themes of plant biology.</p>
Texts and readings	<p>Pasqua G., Abbate G. & Forni C. (eds.), 2019. Botanica Generale e Diversità Vegetale. IV edizione. Piccin, Padova, 632 pp. Longo C., 2014. Didattica della Biologia. Ledizioni, Milano, 262 pp</p>
Notes, additional materials	Slides of the lessons will be available on Teams
Repository	Slides of the lessons will be available on Teams

Assessment	
Assessment methods	Oral examination
Assessment criteria	<ul style="list-style-type: none"> ● <i>Knowledge and understanding</i> <ul style="list-style-type: none"> ○ ascertaining the acquisition of notions relating to the topics covered during the course and of the correct scientific terminology ● <i>Applying knowledge and understanding</i> <ul style="list-style-type: none"> ○ assessment of the acquisition of the ability to process the knowledge acquired and the experiences achieved during the course to prepare specific training projects ● <i>Autonomy of judgment</i> <ul style="list-style-type: none"> ○ assessment of the ability to develop an autonomous judgment especially regarding particular educational situations ● <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> ○ assessment of the capacity for constructive discussion on the subjects of the discipline ● <i>Communication skills</i> <ul style="list-style-type: none"> ○ assessment of the ability to disseminate the fundamental issues of plant biology

	<ul style="list-style-type: none">• <i>Capacities to continue learning</i><ul style="list-style-type: none">○ assessment of the ability to access updated bibliographic sources
Final exam and grading criteria	The final mark will be expressed in thirtieths
Further information	
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