

Main course information	
Academic subject	General Botany
Degree course	Natural Sciences
Classe di laurea	L-32
ECTS credits (CFU)	6
Compulsory attendance	No
Teaching language	Italian
Accademic Year	2019/2020

Docente responsabile	
Name & SURNAME	Mario DE TULLIO
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Tel.	080 5442602
Tutorial time/day	Every day, please make arrangements by e-mail

Course details	Study area	SSD code	Type of class
			BIO/01

Teaching schedule	Year	Semester
	I	II

Modalità erogazione	CFU/ECTS	Lessons (hours)	CFU/ECTS lab	Lab hours	CFU/ECTS tutorial/workshop	Tutorial/workshop hours	CFU/ECTS field trip	Field trip Hours
		6	48					

Time management	Total hours	Teaching hours	Self-study hours
		200	48

Academic Calendar	First lesson	Final lesson
	March 2020	June 2020

Syllabus	
Course entry requirements	Basic notions of chemistry and biology
Expected learning outcomes (according to Dublin Descriptors) (it is recommended that they are congruent with the learning outcomes contained in A4a, A4b, A4c tables of the SUA-CdS)	
<i>Knowledge and understanding</i>	Developing skills in acquiring complex concepts
<i>Applying knowledge and understanding</i>	Contributing to the development of the naturalist's professional toolkit
<i>Making informed judgements and choices</i>	Developing the ability of discriminating between reliable and unreliable sources of information
<i>Communicating knowledge and understanding</i>	Developing skills in describing concepts, biological structures and processes
<i>Capacities to continue learning</i>	Acquiring the capability of obtaining novel information and connecting notions across different disciplines

Syllabus	
Course content	<p>General introduction The "Plant Kingdom": Archaeplastida. Endosymbiosis. Notions of plant evolution.</p> <p>Cytology 1) Plant Cells: general features 2) Plastids. Stromules</p>

	<p>3) Cell wall: structure and functions; secondary modifications. 4) Vacuoles. 5) Cytokinesis: fragmoplast. Plasmodesmata. 6) Growth and differentiation. Tissues. Apoplast and symplast.</p> <p>Anatomy 1) Primary meristems. Adult tissues. 2) Plant organs: root; stem; leaf; flower; fruit 6) Secondary meristems in roots and stems. Secondary wood.</p> <p>Ontogenesis of higher plants 1) Seeds; germination 2) Angiosperm life cycle 2) Flowers. ABC model of floral organ specification: 3) Sporogenesis and gametogenesis. Pollination. 4) Fertilization. Seed development. Somatic and zygotic embryogenesis 5) Fruits.</p> <p>Plant interactions with different organisms 1) Mycorrhiza 2) Root nodules 3) Plant-insect interactions in pollination and seed dispersal</p>
Course books/Bibliography	<p>1) Rost, Barbour, Stocking, Murphy. Plant Biology, Wadsworth, London (Biologia delle Piante; Zanichelli). 2) Sanità di Toppi. Interazioni piante-ambiente, Piccin.</p>
Notes	
Teaching methods	Lecture; Inquiry-based learning; Flipped classroom
Assessment methods (indicate at least the type written, oral, other)	Oral
Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to do, and how many levels of achievement there are)	Assessment of the students' capability of acquiring and properly communicating the course contents.
Further information	