



# UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze Agrarie, Alimentari e Forestali		
ACADEMIC YEAR	2022/2023		
MASTER'S DEGREE (MSC)	AGRICULTURAL PRODUCTIONS AND TECHNOLOGIES		
SUBJECT	BIODIVERSITY OF PLANT SPECIES		
TYPE OF EDUCATIONAL ACTIVITY	C		
AMBIT	21005-Attività formative affini o integrative		
CODE	21865		
SCIENTIFIC SECTOR(S)	BIO/02		
HEAD PROFESSOR(S)	FICI SILVIO	Professore Associato	Univ. di PALERMO
OTHER PROFESSOR(S)			
CREDITS	6		
INDIVIDUAL STUDY (Hrs)	90		
COURSE ACTIVITY (Hrs)	60		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	1		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Not mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	<b>FICI SILVIO</b> Tuesday 10:00 14:00 Via Archirafi 38, 1°piano Wednesday 10:00 14:00 Via Archirafi 38, 1°piano		

DOCENTE: Prof. SILVIO FICI

<b>PREREQUISITES</b>	Basic knowledge of Plant Biology (morphology, phylogeny).
<b>LEARNING OUTCOMES</b>	<p>Knowledge and understanding Acquisition of basic knowledge about Plant Systematics, with special reference to groups of ornamental interest in the Mediterranean. Ability to use the specific language of the basic subject. Ability to approach the disciplines of the course that will take Plant Taxonomy as a cognitive base.</p> <p>Applying knowledge and understanding Ability to identify the different plant species, with special reference to the ornamental ones widespread in mediterranean gardens. Ability of selection of species for public and private gardens and roadsides. Making judgments Being able to evaluate the consequences of selection of species and the implications on their cultivation. Being able to judge the applicability of the results of studies and publications on woody plants in the urban environment.</p> <p>Communication skills Ability to present the results of this subject, the principles of Plant Taxonomy also to an audience non-expert, or expert in the field or with practical experience but with limited scientific basis.</p> <p>Learning ability Ability to understand related disciplines, as well as in-depth courses and specialized seminars. Ability to understand the disciplines of the curriculum that use Plant Taxonomy as basic knowledge.</p>
<b>ASSESSMENT METHODS</b>	<p>Oral exam aimed at evaluating the acquired knowledge in Plant Systematics - with special reference to the species widespread in urban and non-urban parks and gardens - as well as the ability to make connections between topics and the clarity in presentation. During the exam the students can present an educational herbarium. Positive valuation ranges from 18 to 30 and praise. The final valuation will be formulated on the basis of the following criteria: a) Basic knowledge of the main topics, limited capacity to apply the gained knowledge, sufficient capacity of analysis and exposure (rating 18-21); b) Good knowledge of the studied topics, ability to link these and to apply their content in situations similar to those studied, discrete capacity of analysis and exposure (rating 22-25); c) In-depth knowledge of the studied topics and ability to apply these, but not always promptly and following a linear approach, ability of identification of higher plants of the main families studied (with special reference to species of ornamental interest), good capacity of synthesis, analysis and exposition (rating 26-28); d) Deep knowledge of Plant taxonomy and ability to apply its concepts promptly and correctly, ability of identification of higher plants of the main families studied (with special reference to species of ornamental interest), excellent capacity of synthesis, of analysis and excellent capacity of communication (rating 29-30 and praise).</p>
<b>EDUCATIONAL OBJECTIVES</b>	<p>The course is aimed at providing basic knowledge on plant biodiversity, with reference to woody groups utilized in parks, gardens and green areas for sport and recreation, both in urban and non-urban context. Will be provided basic knowledge about plant systematics, classification, taxonomical units and botanical nomenclature. The main families of woody ornamental plants, belonging to Gymnosperms and Angiosperms, will be studied and the more widespread species of our gardens and parks will be examined in-depth details.</p>
<b>TEACHING METHODS</b>	Lectures, practical classes
<b>SUGGESTED BIBLIOGRAPHY</b>	FERRARI M., MEDICI D. (1996) - Alberi e arbusti in Italia. Edagricole, Bologna. ISBN-88-206-3546-1.

## SYLLABUS

Hrs	Frontal teaching
2	The plant systematics and relative history. Taxonomic units. Main systems of classification. Botanical nomenclature. Species concept, infraspecific taxa. The stages of phylogeny of plants.
3	Fundamentals of Plant Morphology. Stem, root, leaf. Flower, inflorescence, fruit, seed. Main morphological characters for identification of species. Use of analytical keys.
2	Cormophytes: Generalities and Systematics. Spermatophytes: Generalities. The ovule. The seed. Systematics.
8	Gymnosperms: Vegetative and reproductive characters. Systematics. Species of ornamental interest belonging to the following families: Cycadaceae, Ginkgoaceae, Araucariaceae, Cupressaceae, Pinaceae
27	Angiosperms: Vegetative and reproductive characters. Systematics. Species of ornamental interest belonging to the following families: Fagaceae, Salicaceae, Ulmaceae, Moraceae, Buxaceae, Platanaceae, Lauraceae, Tamaricaceae, Caesalpiniaceae, Mimosaceae, Fabaceae, Pittosporaceae, Rosaceae, Myrtaceae, Tiliaceae, Bombacaceae, Sterculiaceae, Aceraceae, Anacardiaceae, Meliaceae, Rutaceae, Simaroubaceae, Sapindaceae, Araliaceae, Bignoniaceae, Apocynaceae, Oleaceae, Arecaceae, Agavaceae
Hrs	Practice
18	Practical classes in the Botanical Garden, as well as in the main gardens, parks and roads of Palermo: Identification of ornamental species of gymnosperms and angiosperms.