



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze Agrarie, Alimentari e Forestali		
ACADEMIC YEAR	2021/2022		
BACHELOR'S DEGREE (BSC)	FORESTRY AND ENVIRONMENTAL SCIENCES		
SUBJECT	GENERAL SILVICULTURE AND DENDROLOGY		
TYPE OF EDUCATIONAL ACTIVITY	B		
AMBIT	50124-Discipline forestali ed ambientali		
CODE	18685		
SCIENTIFIC SECTOR(S)	AGR/05		
HEAD PROFESSOR(S)	LA MELA VECA DONATO SALVATORE	Professore Associato	Univ. di PALERMO
OTHER PROFESSOR(S)			
CREDITS	8		
INDIVIDUAL STUDY (Hrs)	132		
COURSE ACTIVITY (Hrs)	68		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	2		
TERM (SEMESTER)	2° semester		
ATTENDANCE	Not mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	LA MELA VECA DONATO SALVATORE Tuesday 11:00 13:00 Studio del docente, Edificio, 4, Ingresso H, stanza 23 - viale delle Scienze - Palermo Thursday 11:00 13:00 Studio del docente, Edificio, 4, Ingresso H, stanza 23 - viale delle Scienze - Palermo		

DOCENTE: Prof. DONATO SALVATORE LA MELA VECA

PREREQUISITES	Basic knowledge of plant biology, forest ecology and forest botany
LEARNING OUTCOMES	<p>Knowledge and understanding: acquisition of the scientific bases and fundamental techniques of Forestry and Dendrology. Ability to use the specific language. Knowledge of the objectives of a forest cultivation and ability to choose the appropriate techniques.</p> <p>Ability to apply knowledge and understanding: ability to analyse the characteristics and cultivation requirements of a forest ecosystem, to identify and conduct surveys and processing necessary for the analytical description of forest stands and the choice of the most appropriate cultivation techniques.</p> <p>Making judgments: to be able to evaluate the implications and results of cultural practices and analyse the functional response of the forest in relation to cultural practices performed; be able to assess technical and cultural errors and forest responses to the expected outcome and correct management requirements in relation to them.</p> <p>Communication skills: ability to explain the reasons and the expected results of silvicultural techniques adopted to a non-expert audience and be able to highlight their environmental impacts.</p> <p>Learning capacity: ability to upgrade with the consultation of technical and scientific publications related to the autoecology of forest species, dendrology and forestry; ability to follow, using the knowledge acquired during the course, the training activities of the second level degrees, seminars and specialized scientific conferences in the field.</p>
ASSESSMENT METHODS	<p>The evaluation (minimum grade is 18 and maximum is 30 cum laude) is stated using the following scheme:</p> <p>1) Knowledge of the topics, capability to apply the learned knowledge, capability to analyze the studied problem, ability to present the topic is judged sufficient (18-21)</p> <p>2) Knowledge of the topics, capability to apply the learned knowledge, capability to analyze the studied problem, ability to present the topic is judged fair (22-25)</p> <p>3) Knowledge of the topics, capability to apply the learned knowledge, capability to analyze the studied problem, ability to present the topic is judged good-high (26-28)</p> <p>4) Knowledge of the topics, capability to apply the learned knowledge, capability to analyze the studied problem, ability to present the topic is judged high/advanced (29-30 cum laude)</p>
EDUCATIONAL OBJECTIVES	<p>The course provides students with;</p> <ul style="list-style-type: none">- the scientific assumptions of silviculture on forest ecology base;- the analytical tools for describing characters of forest stands and the interpretation of evolutive / regressive dynamics;- the knowledge of forestry techniques, silvicultural system of stands;- the basic information on terrestrial biomes, on forest vegetation in Europe with particular reference to the autoecological of species that have repercussions on silviculture of Mediterranean forests.
TEACHING METHODS	Frontal lessons, exercises, technical visits and in field practical activities
SUGGESTED BIBLIOGRAPHY	<p>Piussi P. e Alberti G., 2015. Selvicoltura generale. Boschi, societa' e tecniche culturali. Compagnia delle Foreste. Arezzo. ISBN 978-88-98850-11-2.</p> <p>Bernetti G., 2015. Le piante del bosco. Forma vita e gestione. Compagnia delle Foreste. Arezzo.</p> <p>Altre pubblicazioni di approfondimento forniti dal docente. ISBN 978-88-98850-10-5.</p>

SYLLABUS

Hrs	Frontal teaching
2	Objectives and presentation of the course
2	Silviculture: definition, meaning, necessity, utility and history
2	Forest tree: size and habitus, growth, senescence and death
4	Forest and forest site: definition and functions of the forest, physical environment and site description, qualitative and quantitative description of forest stands, Kraft and De Pjilippis tree classifications, silvicultural system
8	High forest: natural regeneration (seed), even-aged forest, uneven-aged forest, clear felling, shelterwood felling, selection felling
4	Intermediate cutting (thinning) and pruning
6	Coppice forest: simple and with standars coppice, coppice selection system,
4	Conversions and transformations: definitions, opportunities and technical details.
2	Biomes and the European bio-geographical regions
2	Italian forest landscapes
2	International, European and local classification systems of forest vegetation

SYLLABUS

Hrs	Frontal teaching
10	Selviculture of the main Mediterranean forest categories: Mediterranean maquis, Mediterranean pine forests, evergreen and deciduous oak forests, beech and chestnut forests
Hrs	Practice
6	Assessment in the field of Mediterranean forest resilience to climate change.
Hrs	Others
6	Technical management of Mediterranean conifer reforestation
8	Management techniques of Mediterranean coppices forests