



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze Agrarie, Alimentari e Forestali
ACADEMIC YEAR	2022/2023
MASTER'S DEGREE (MSC)	AGROENGINEERING AND FORESTRY SCIENCES AND TECHNOLOGIES
SUBJECT	FOREST GEOMATICS LABORATORY
TYPE OF EDUCATIONAL ACTIVITY	F
AMBIT	21386-Altre conoscenze utili per l'inserimento nel mondo del lavoro
CODE	20920
SCIENTIFIC SECTOR(S)	
HEAD PROFESSOR(S)	LASCHI ANDREA Professore Associato Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	3
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	2
TERM (SEMESTER)	2° semester
ATTENDANCE	Not mandatory
EVALUATION	Pass/Fail
TEACHER OFFICE HOURS	LASCHI ANDREA Wednesday 09:00 11:00 Ufficio del docente, Viale delle Scienze ed. 4, ingresso H, piano terra, stanza 22. Thursday 10:00 12:00 Ufficio del docente, Viale delle Scienze ed. 4, ingresso H, piano terra, stanza 22.

DOCENTE: Prof. ANDREA LASCHI

PREREQUISITES	Basic knowledge of cartography, GIS, forest management, dendrometry and forest planning
LEARNING OUTCOMES	<p>KNOWLEDGE AND COMPREHENSION SKILLS: In-depth and applied knowledge of the use of geographic information systems and collection of analytical and synthetic data for inventory and monitoring of forest resources at different levels of geographic detail.</p> <p>CAPACITY TO APPLY KNOWLEDGE AND UNDERSTANDING: Ability to autonomously conduct and apply the most appropriate inventory techniques for the qualitative and quantitative description of forest resources</p> <p>JUDGMENT SKILLS: The student must acquire the ability to find suitable data and information to identify the most appropriate methodologies and inventory tools in forestry.</p> <p>COMMUNICATION SKILLS: Ability to communicate with technicians of equal and different backgrounds. Effectively communicate their theses, their choices and the results of technical studies even to a non-specialist public, conveying the importance of their choices. Being able to support the importance of inventory tools adopted on different spatial scales.</p> <p>LEARNING CAPACITY: Ability to constantly update through consultation of scientific publications specific to the field. Ability to attend, using the knowledge acquired in the course, second-level master's degrees, advanced courses, and specialized seminars in the field of forest geomatics.</p>
ASSESSMENT METHODS	Eligibility will be achieved by evaluating the results of laboratory activities.
EDUCATIONAL OBJECTIVES	The general objective of the laboratory is to introduce students to the knowledge and use of geo-information methodologies and tools to support the management of natural resources at different geographical scales: from landscape to farm level. The specific objective is to provide basic knowledge for the creation and management of thematic digital cartography to support the planning, management and monitoring of forest ecosystems.
TEACHING METHODS	Lectures and laboratory activity
SUGGESTED BIBLIOGRAPHY	<p>Corona P., 2000 - Introduzione al rilevamento campionario delle risorse forestali. CLUSF Firenze, pp 283, ISBN-10 888021098X</p> <p>Chirici G., Corona P., 2006 - Utilizzo di immagini satellitari ad alta risoluzione nel rilevamento delle risorse forestali, ARACNE Editrice S.r.l., pp. 192, ISBN-10 8854803383</p> <p>Materiale forniti dal docente.</p>

SYLLABUS

Hrs	Frontal teaching
2	Course introduction and elements of geodesy and cartography.
2	Introduction to open source Geographic Information Systems (GIS).
2	Introduction to cartographic and alphanumeric databases accessible by web.
Hrs	Workshops
24	Project work: GIS Applications for the inventory and monitoring of forest resources.