TEACHING ORGANISATION	Department of Agricultural, Food and Forest Sciences
ACADEMIC YEAR OF THE EDUCATIONAL OFFER	2018/2019
ACCADEMIC YEAR OF SUPPLY	2018/2019
MSC DEGREE STUDY PROGRAM	SFA
SUBJECT	Forest Soils
SUBJECT CODE	19388
PARTITION IN MODULES	NO
NUMBER OF MODULES	-
SCIENTIFIC SECTORS	AGR/14 - Pedology
RESPONSIBLE TEACHER	Carmelo DAZZI Full professor University of Palermo
TIMETABLE OF STUDENT RECEPTION	Monday, from 9 to 10 a.m. Office n. 218 of the Department of Agricultural, Food and Forest Sciences
NUMBER OF CREDITS	6
PREPARATORY SUBJECTS	Soil chemistry
PREREQUISITES	Basic knowledge of chemistry, physics, mathematics and skills in computer literacy are requested.
STUDY PROGRAM YEAR	2nd
LOCATION	Shown in the lecture timetable
LECTURE PERIOD	2nd semester
ASSESSMENT RESULT	Mark ranging between 18 and 30 with honours
ATTENDANCE	Elective

EXPECTED LEARNING OUTCOMES

Knowledge and understanding capacity

To understand soil importance in the environment and its role in the biosphere; to describe main physical-chemical properties of soils; to explain soil formation factors and processes; to define soil processes and soil diagnostic horizons; to discuss peculiarities of soil moisture and thermal regimes; to learn the main soil classification systems (ST and WRB).

Capacity of applying knowledge and understanding

To be able to apply well-balanced soil melioration and protection means; to predict and manage land exploiting problems as related to landscape functioning and soil cover characteristics of particular territory; to classify soils into the major groups, subgroups and other systematic units according to the international systems (ST & WRB).

Opinion autonomy
To grow individual commitment for sustainable soil use in order to preserve natural landscape and soil fertility from generation to generation.

Communication skills
Capacity of converting the technical and scientific language of the student in a didactic speech and, then, communicating with technicians of the same and different background, as well as describing forest soils and their features to improve the overall quality of the environment.

Learning capacity
Capacity of updating through the participation to technical and scientific seminars and/or the reading of scientific papers specific of this subject. Capacity of attending in-depth courses and seminars, by using the knowledge obtained within the subject. Capacity of understanding soil features, as well as the newly acquired techniques and methods, developed in the soil research fields.

EDUCATION OBJECTIVES
The education objectives of the subject are :
1. recognition of soil importance as a natural body and essential national resource;
2. determination of soil forming factors and processes; identification of soil mineral and organic part composition;
3. determination and argue of soil physical, chemical and biological properties;
4. knowledge about soil profile structure and determination of soil morphological properties; soil systematic grouping according to newest international classifications;
5. setting up of the appropriate means in order to protect soil and to control the adverse anthropogenic influence;
6. perception, application and interpretation of terminology that is valid in Soil Science.

SUGGESTED REFERENCES

Dazzi C. (2016) - Fondamenti di Pedologia. 2nd ed. Le Penseur. ISBN : 978-88-95315-20-1

ACTIVITY TYPE	C
FIELD	21005 - Education activities affine or supplementary
NUMBER OF INDIVIDUAL STUDY HOURS	96
NUMBER OF TEACHING HOURS	64

Lectures

HOURS	TOPICS
2	Introduction to the course.
3	Evolution of the soil concept; soil qualities sand soil functions.
3	The soil profile.
6	Soil forming theory.
2	Soil minerals and clay properties.

2	Soil organic matter and its evolution.
6	Physical properties of the soils.
4	Chemical properties of the soils.
2	Soil moistures and water movement in soil.
8	Soil processes.
6	Soil classification: ST and WRB.
6	Soil orders in ST.
3	Humus forms: features and taxonomy.
3	The soil of the Italy: distribution and features.
	Exercises
8	Field excursion.

PROCEDURE OF LEARNING TEST

The exam candidate will have to answer to three oral questions concerning all the parts of the course content. The threshold of pass mark will be achieved when the student shows at least a minimum general knowledge and understanding of the topics of the course. The more the exam candidate succeeds in interacting with the examiner, by using his knowledge on the topics of the course, the more the assessment will be positive. The assessment is carried out according to a scale ranging from 18 to 30 with honours.