DEPARTMENT	Scienze Agrarie e Forestali
ACADEMIC YEAR	2014-2015
DEGREE COURSE	**MSc SCIENZE FORESTALI ED AMBIENTALI**
COURSE	Biodiversity of cryptogams
ARRANGEMENT INTO MODULES	Yes
NUMBER OF MODULES	Questo insegnamento fa parte di Botanica Applicata CI
SCIENTIFIC GROUP	BIO/02
TEACHER	Dr. Alessandro Saitta
NUMBER OF CREDITS	3
NUMBER OF HOURS NECESSARY TO ACHIEVE FULL LEARNING	45
NUMBER OF TEACHING HOURS	30
EXAMS TO PASS BEFORE	No
YEAR OF THE COURSE	1
LOCATION OF THE COURSE	Indicated in the Class schedule
COURSE ARRANGEMENT	Lectures, Practical exercises, Technical visits (according to economic resources availability)
ATTENDANCE	Recommended
EVALUATION METHOD	Every students must create a Power Point presentation and discuss it.
RATING OF EXAMINATION	Mark ranging between 18 and 30
SEMESTER	1
CALENDAR OF EDUCATIONAL ACTIVITIES	According to the calendar published before beginning the course
STUDENTS RECEIVING	Monday 12.00-13.00 and Friday 11.00-12.00 Contact by email (alessandro.saitta@unipa.it)

EXPECTED LEARNING OUTCOME

Knowledge and understanding skills
Awareness of the value of cryptogams in the forest ecosystems.
Knowledge of conservation strategies of fungi and lichens and a basic understanding of how the monitoring of these is done.
Knowledge of the methods and resources needed to identify selected groups of cryptogams (important indicator organisms, ecologically significant organisms, etc).

Ability to apply knowledge and comprehension
How carry out floristic investigations.
Describe a cryptogam (fungi, lichens and bryophyte) using botanical terms.
Identify a cryptogam using dichotomous keys.
Recognize large and common families of fungi and lichens.

Ability to judge
Capacity to carry out biodiversity studies to design conservation interventions.
Self-evaluation activities carried out during the course.

Ability to communicate
Ability to follow postgraduate courses.
Communicate to non-expert people what is the role of cryptogams in the forest ecosystems.

Ability to learn
The activities will allow the acquisition of basic knowledge for continuous updating of understanding.

OBJECTIVES
The aim of this course is to provide information on the role of fungi, lichens and bryophytes in forest ecosystems. During the course we will analyze rare entities wich are at risk of extinction, describing the criteria established by the IUCN (International Union for the Conservation of Nature). We will describe also singular case, strategies for conservation in situ and ex situ at the regional level. Special interest will be given for practical experience of assessment of biodiversity and its enhancement (bioprospecting). This course is also designed to develop skills in interpreting cryptogam structure, as a basis for identifying fungi, lichens, and bryophytes.

Scheduled hours	TOPICS
3	Cryptogams and their role in forest ecosystems.
3	Biodiversity, check-lists and red-lists.
3	Bryophytes. Sphagnum: environmental value and conservation strategies.
3	Lichens. The Project ITALIC. Biomonitoring.
5	Fungi. The study of *Pleurotus nebrodensis*. Hypogeous fungi.
5	Wood inhabiting fungi: *Corticiaceae* s.l. and *Polyporaceae* s.l.
2	Bioprospecting.
Practical applications 6	Observations of collected samples and written report.
Suggested books	Gerola F. M., (1997). Biologia vegetale. Sistematica filogenetica. Terza edizione. UTET, Torino.

| | Pignatti S. (1995). Ecologia vegetale. UTET, Torino. |