Degree in: Nature Sciences

Academic year: 2016-2017

Course: Palaeobotany and Palynology

Teaching: Prof. Donatella Magri

Department: Environmental Biology

Floor: III Room: 305 Phone: 22279

e-mail: donatella.magri@uniroma1.it

Target students: 1st year MSc

Unit Level: specialist

Pre-requisites: basic knowledge of Botany and Geology

Credits: 6

Objectives of the course:

To learn the basic techniques of palaeobotanical and palynological techniques. To know the main vegetation changes of the Quaternary. To acquire knowledge of the evolution of plants through geological ages. To apply palaeobotany to nature conservation issues.

Description of contents:

Aims and scopes of Palaeobotany. Relations of Palaeobotany with other disciplines (Botany, Geology, Ecology, Archaeology, Genetics)


How fossil plants are formed and preserved: unaltered plant remains, impressions, compressions, coal and charcoal, permineralization.


Sampling from archaeological contexts: planning and execution. Aims and scopes of archaeobotany.

Palaeobotanical techniques: fossil wood, leaves, cuticles, algae, carpological remains, and phytoliths.


Human impact on past natural landscape. The transition from wild to domesticated plants: age and geographical distribution of the earliest remains of cereals, pulses, fruit trees and nuts, oil- and fibre-producing crops, ornamental plants, spices.


**Linking Palaeobotany and Genetics:** new frontiers in Palaeobotany.

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**Skills to be developed and expected learning outcomes:**

Identification of fossil plant remains. Pollen identification (European flora).
Knowledge of the Quaternary changes of flora, vegetation and climate in Europe, in relation to natural factors and human impact, aimed at the reconstruction of past natural landscape and biodiversity conservation.
Knowledge of the evolution of plants.

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<tr>
<th>TOPICS (CFU)</th>
<th>CLASSROOM HOURS</th>
<th>STUDENT HOURS</th>
<th>TOTAL HOURS</th>
<th>TYPE OF TEST</th>
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<tr>
<td>Plant remains: preservation and depositional environments</td>
<td>Ex-cathedra teaching</td>
<td>12</td>
<td>26</td>
<td>38</td>
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<td>Techniques for the study of plant remains</td>
<td>Practice</td>
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**Final evaluation:**

Oral examination and identification of fossil plant remains

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**Suggested textbooks:**
- study material on e-learning.

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Date, _05.05.2016_