

DIBAF Dipartimento per la Innovazione nei sistemi Biologici Agroalimentari e Forestali

> Prof. Fernanda Fidalgo Faculty of Sciences, University of Porto (FCUP) Portugal

Prof. Madesis Panagiotis University of Thessaly School of Agriculture Greece

Object: Blended Intensive project called "Sustainable green areas to promote

sustainable cities"

Topics in Focus:

"Sustainable green areas to promote sustainable cities"

<u>Timesheet:</u> 2nd semester 2023-24: beginning of March – February 10th, 2024 <u>Days in presence</u> at UNITUS: April 15th-17th, 2024

<u>3 ECTS</u> = 6 hours in distance (lectures+ group activities) + 18 hours in presence + company visits Language of instruction: English

Partner universities			Professors			
University TUSCIA, Viterbo Italy			Prof. Vettraii	Anna no	Maria	vettrain@unitus.oit
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Introduction

Urban green areas, in particular urban trees, provide many ecosystem services, including regulating services (e.g. air pollution reduction, storm water management, carbon sequestration), cultural services (offering settings for recreation and tourism, physical and mental health benefits), supporting services (e.g. providing wildlife habitat), and provisioning services (e.g. food and fuel

production). Nevertheless, urban green areas are threatened by pests and disease, as well as intensive human use and abuse, all of this within a context of climate change. With our BIP, we aim to:

- to enhance students' self-awareness of the importance of urban green areas diseases and current challenges
- to combat plant blindness and stimulate students' interest in plant biology
- to encourage students to respect and admire the values of urban green areas
- -to promote networking among students through group work in cooperative projects
- to support students' participation in intercultural dialogue through activities developing creativity, communication, collaboration, and critical thinking

Activities

- Interactive workshops on topics related to the proposal, e.g biological control of plant pathogens (experiments will be done at the plant pathology laboratories at UNITUS);
- Intercultural group projects;
- Cultural programmes in Italy (visit to the Botanical Garden and the historical Villa Lante in Viterbo)
- lectures and activities focused on tree diseases survey and morphological and molecular detection, biological management of diseases, biological management of weeds, bibliography research and analysis on specific subject related to the topic

Learning and teachings methods: The course adopts a mix of teaching methods, where each method and technique is applied to maximize students' engagement and learning. The classical lectures are useful to frame theories; they are followed by discussion of 1-2 articles on each topic and by a business case which goes from the beginning to the end of the course. Learning is further complemented by lab tests that help the students to face real problems done at UNITUS and visit in urban green areas showing plant diseases, monitoring and management strategies

Virtual component 6 hours in distance (lectures+ group activities). Students will be organized in teams and will be involved in a reference survey. The data collected will be discussed during student stay at UNITUS

Partners from University of Porto and University of Thessaly will contribute to the program sharing their expertise on the topics, providing lectures and exchange views on teaching content, participating actively to the workshops

Expected learning/training outcomes

A) increase awareness of environmental sustainability and green practices by:

1) increase students's knowledge on the importance of urban green areas and the development of ecofriendly and sustainable strategies for their management

- 2) enhance the use of sustainable means of transport for mobility during cultural programs in Italy
- 3) replacepaper-based processes with digital processes
- 4) make use of digital technologies
- B) create synergies between the academic experience
- C) learn to work in a network and transnationally

The program is on line with the aim of the Biotechnology course at DIBAF because it provides theoretical-practical knowledge of biotechnological fields such as plant physiology and, biotechnology applied to environment

Viterbo 30 Gennaio 2024

Prof. Anna Maria Vettraino

