

# MASTER & MASTER OF SCIENCE PROGRAMMES IN “MEDITERRANEAN ORGANIC AGRICULTURE” ACADEMIC YEAR 2021 - 2022



## DESCRIPTION

The Master of Science Programme provides a two-year curriculum whose main objective is to prepare a new generation of motivated students towards professional and academic careers that promote the development of organic agriculture, with a particular emphasis to Mediterranean contexts.

The programme proposes a holistic view for the organic sector development, presenting theoretical and methodological approaches to sustain transition to organic agriculture through agroecological principles, and with a perspective of sustainable food systems development. The course provides deep insights into organic farming and food regulatory frames. Special emphasis is given to the range of on-farm technologies and practices to improve soil health and fertility and manage pest and diseases. Economics and marketing issues are also presented, leading students through an understanding of sustainable food value chains.

At the end of the course students will have the following skills and competencies:

- ✓ Understand the importance of sustainable production and advocate for ecologically sound solutions, at different levels;
- ✓ Know the organic legislative and policy frameworks and how to drive farms to a transition towards organic farming and agroecological principles;
- ✓ Know how to produce safe, high quality and sustainable organic food;
- ✓ Understand economics and market issues, being able to analyse and design organic food value chains;
- ✓ Learn how to facilitate multi-actors' networking for the organic sector development;
- ✓ Have expertise to assess agricultural, environmental, and socio-economic opportunities and constraints of organic agriculture in different Mediterranean areas.

International scientists and practitioners, with a consolidated knowledge on the covered topics, will give lectures.

Students will also undertake several practical activities and assignments, aimed at developing their skills and competencies in the Master sector.

## ORGANIZATION

First Year: 60 ECTS

Diploma: Master of CIHEAM Bari

Duration: 9 months (Oct - Nov 2021 distance learning; Dec 2021 – Jun 2022 at CIHEAM Bari)

Second Year: 60 ECTS

Diploma: Master of Science

Duration: 12 months

## CANDIDATES' PROFILE

The course is addressed to new graduate students and young professionals with a university background related to agronomic, horticultural, agricultural marketing and socio-economic issues.

## Requirements:

- Holding a University degree awarding at least 180 ECTS;
- Having completed four out of five years of University studies, upon agreement between the sending University and CIHEAM Bari (the year attended at CIHEAM Bari is recognized as final year in order to graduate at the University of origin);
- Good knowledge of **spoken and written English**;
- Personal access to **computer facilities**.

## ADMISSION

Selection of students is based on:

1. Screening of documents sent online by candidates to support their application;
2. Online interview

**Submission of applications through the online procedure**

**Deadline: 30 June 2021**

## COSTS

**Registration fee:** 200.00€/year

**Tuition fee:** 500.00€/month (travel, accommodation and insurance expenses not included)

## BENEFICIARIES

Master and MSc Programmes are open to candidates of any nationality

## SCHOLARSHIPS

CIHEAM BARI grants **full** or **partial scholarships** to candidates according to a ranking list. Priority is given to students coming from CIHEAM Member countries and other Mediterranean, Balkan and Middle Eastern Countries

## LANGUAGE OF INSTRUCTION: English

For further information and application procedure:

[www.iamb.ciheam.org](http://www.iamb.ciheam.org)

## MASTER PROGRAMME

October 2021 – June 2022



### Distance learning stage

The course will start with a 2-month distance learning phase with two teaching units aimed at developing students' knowledge and mindset on issues related to sustainability and resilience of agro-ecosystems.

Unit I - Sustainability in agriculture and food systems: it frames the concepts of sustainability applied to agriculture and food sectors. It provides elements for understanding the main agricultural challenges to design solutions and actions towards sustainable and resilient agri-food systems. The multi-dimensions nature of sustainability challenges will be analysed, getting students to reflect on processes for sustainability transitions in agri-food systems.

Unit II - Climate "smart" agroecology: agroecology is the discipline that studies the ecological processes at the base of the functioning of agro-ecosystems. The course aims to provide a widely applicable knowledge base to increase the resilience and production of agro-ecosystems, in a changing climate scenario. Students will learn how to assess the complexities and challenges of agro-ecosystems, and ways for sustainable planning of actions to mitigate and adapt to climate change and other global drivers of change.

### Face-to-face stage

Students will attend the courses and develop a project at CIHEAM Bari.

Unit III - Organic agriculture principles: the unit introduces principles on which organic agriculture is founded, presenting the regulations with reference to European and International contexts. It presents how farms should go through conversion processes, with focus on agricultural practices and allowed inputs. The standards organic farms must match are discussed, together with the control and certification systems for production.

Unit IV - Soil management and fertility: soil health is a fundamental aspect in organic farming. Students will understand how to manage at farm level the soil resource, from the conversion to the production phase. They will learn about the range of agronomic techniques and practices to maintain and improve soil fertility and quality. Focus on crop organic management will help students gain practical skills.

Unit V - Pest and disease control: students will learn about principles for crop pest management in organic farming. Strategies will include crop choice and rotations schemes, preventive measures, biological control strategies, use of authorized Plant Protection Products (PPP). The main pests and diseases of olives, vines and citrus will be analysed to give students a practical view of the issue.

Unit VI – Sustainable Farm management: the unit presents sustainable farm management as the process of making decisions about the allocation of scarce resources for agricultural production, matching with multiple management goals (economic, environmental, social, cultural). Methods for farms performances analysis are described as tools to drive farmers towards competitiveness in the frame of the agri-food system challenges. Students will analyse organic and conventional farms, assessing sustainability levels.

Unit VII – Organic markets and value chains: students will acquire knowledge about organic markets and distribution of added value along organic food chains. Food consumption trends and drivers will be analysed. Approaches to the study of consumer behaviour will be introduced. A range of approaches in developing more inclusive, equitable and sustainable organic value chains will be experienced. The unit provides framework for concepts, definition and evaluation of organic food quality and safety. Moreover, innovative, careful and sustainable solutions able to add value along the value chain will be exploited.

VIII – Policies and institutions for organic farming development: it presents the main policies and programs that advocate and support the organic sector development, in particular by building multi-stakeholders' networks. It will take students through the analysis of important stakeholders who work at international, national and local level.

Project: students will be engaged in a project development through an action learning process, aimed at developing their competencies in the organic sector.

## MASTER OF SCIENCE PROGRAMME

November 2021 - October 2022

During the second year, students who have successfully completed the first year, and have met all the prerequisites set by CIHEAM Bari, draft a thesis based on experimental research work.

### Topics generally available for Master of Science theses are:

- Management of cropping systems and soil fertility, quality of agricultural products and agricultural by-product recovery
- Biological control and natural biomolecules
- Sustainability of agricultural and natural systems
- Economics and market research
- Socio-economic impacts and impacts of support policies
- Organic food and added value products