Master of Science Programme in
Organic Farming and Food Systems
Academic Year 2026-2027

DESCRIPTION

The Master of Science Programme in *Organic Farming and Food Systems* provides a two-year curriculum aimed at developing the next generation of professionals who can advance organic farming and food systems and meet sustainability goals. The programme adopts a systems-oriented approach, viewing organic food systems as complex, dynamic processes that require integrated management to ensure long-term sustainability and resilience. It expands from organic farming and food systems to a broader farm-to-fork perspective, integrating production, processing, and value chains across diverse biophysical and socioeconomic contexts.

It combines knowledge and methods from multiple disciplines to design sustainable organic food systems responding to the needs of local communities and territories. Innovative learning and teaching strategies are used to strengthen students' technical and analytical skills, as well as key soft skills such as communication, collaboration, creativity, and critical thinking.

The programme integrates green competences, digital and AI applications, processing and post-harvest approaches, plant health across the value chain, and social sciences and humanities perspectives. At the end of the course, students will be able to support the development of organic farming and food systems using regenerative approaches, contributing to agroecological transition and more sustainable food systems.

Students will learn to:

- Master the principles and practices of organic food and farming systems, including crop, soil and plant management, processing and value chains
- Develop strategies for supporting the transition to organic and sustainable food systems, adopting a holistic farm-to-fork approach
- Evaluate organic food systems from environmental, social and economic perspectives
- Understand and apply policy and regulatory frameworks governing organic systems
- Use innovative and digital solutions to enhance sustainability and resilience
- Design post-harvest and processing strategies ensuring food quality and value addition
- Apply systems thinking and collaborative problem-solving to address complex challenges

The programme involves CIHEAM Bari staff, international scientists and practitioners with recognised expertise in the organic sector. The first year is structured into eight thematic units and applied project activities, while during the second year, students carry out research projects on specific topics.

Teaching methods are hands-on and experiential, including peer learning, field trips, technical visits and active participation. The programme fosters strong partnerships with enterprises, connecting academia and practice and enhancing students' professional opportunities.

ORGANIZATION

First Year: 60 ECTS
Diploma: Master of CIHEAM Bari
Duration: October 2026 - June 2027

Second Year: 60 ECTS
Diploma: Master of Science of CIHEAM
Duration: November 2027 - October 2028

LANGUAGE OF INSTRUCTION: English

CANDIDATES' PROFILE

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

Requirements:

Candidates must hold a university degree awarding at least 180 ECTS (three-year bachelor's degree), or they must have completed four out of five years of studies, upon agreement between the sending university and CIHEAM Bari. Work experience and other qualifications will be evaluated and are considered as an added value in the selection process. Applicants must have a good knowledge of spoken and written English and access to computer facilities.

ADMISSION

Selection of students is based on:

1. Screening of application-supporting documents
2. Online interviews

Applications: through the online procedure
https://www.iamb.it/education/application/

Deadline: 31 May 2026

COSTS

Registration fee: 200.00 €
Tuition fee: 4,000.00 €

SCHOLARSHIPS

CIHEAM Bari grants full or partial scholarships to selected candidates according to a ranking list.

Priority is given to students coming from CIHEAM Member countries and other African, Mediterranean. Western-Balkan and Middle Eastern Countries.

For more details about the programme:
www.iamb.it/education/masters/moa

Master programme

Unit I – Organic Food Systems, Sustainability and Agroecological Transition
The unit introduces the concepts of organic food systems, sustainability and resilience, framing organic agriculture as a driver of sustainable food production and consumption. It explores agroecological principles, systems thinking and transition processes across food systems. Students analyse interactions between environmental, social and economic dimensions and develop a comprehensive understanding of system dynamics.

Unit II – Regulatory Frameworks, Certification and Traceability
The unit covers regulatory frameworks governing organic agriculture at EU and international levels, including certification systems, inspection processes and compliance mechanisms. It integrates traceability tools and digital solutions to ensure transparency, integrity and trust across organic value chains. Practical examples and case studies support the understanding of certification procedures and market requirements.

Unit III – Soil Health, Plant Nutrition and Resource-Efficient Practices
The unit provides principles and practices for soil health and plant nutrition in organic systems. It focuses on nutrient cycling, soil fertility management and resource-efficient practices, including water use, input reduction and regenerative approaches. Students explore strategies to enhance soil resilience and optimise resource use.

Unit IV – Plant Health Across Organic Value Chains
The unit focuses on pest and disease management using agroecological approaches, extending plant health management from the field through storage, processing, and distribution. It emphasises prevention, monitoring and integrated strategies to ensure crop and product integrity. Students assess risks and develop solutions for maintaining plant health across the entire value chain.

Unit V – Organic Food Processing, Post-Harvest and Quality
The unit addresses post-harvest management, processing technologies, food safety, quality and nutritional aspects, highlighting value addition and product integrity. It explores techniques such as storage, preservation and sustainable processing. Students evaluate how processing influences quality, shelf life and consumer perception of organic products.

Unit VI – Innovation, Digitalisation and AI in Organic Systems
The unit introduces digital tools, artificial intelligence and innovation approaches applied to organic food systems. It supports data-driven decision-making and system optimisation through practical applications. Students explore opportunities and limitations of digital technologies in enhancing efficiency, transparency and sustainability.

Unit VII – Sustainable Agribusiness, Value Chains and Entrepreneurship
The unit focuses on organic markets, consumer behaviour, business models, and value chain development, integrating sustainability and circular-economy approaches. It examines strategies for creating value and improving competitiveness in organic systems. Students develop skills in analysing markets and designing sustainable business solutions.

Unit VIII – Policy and Territorial Development
The unit provides an understanding of policy frameworks, territorial dynamics, and governance processes that influence organic food systems. It focuses on organic districts (biodistricts) as place-based models fostering collaboration among stakeholders. Students develop leadership and facilitation skills to support multi-actor processes and territorial innovation.

Unit IX – Applied Project: Collaborative problem solving and system thinking
The applied project addresses the key challenges faced by local organic enterprises. The project aims to develop students' collaborative problem-solving competencies to effectively engage in problem-solving by sharing understanding, pooling knowledge, and combining effort to reach a solution. The activities are designed to develop students' capacity to observe, analyse, and propose solutions to complex problems by applying integrated approaches from different disciplines.

Master of Science programme

Students who have successfully completed their first year are eligible for admission to the second-year programme, where they engage in research activities under the guidance of CIHEAM Bari staff in collaboration with national and international research and innovation institutions, as well as enterprises. Students have the flexibility to choose projects aligned with their interests, facilitating future career development. The key focus areas for the Master of Science programme include cropping systems, soil fertility, by-product management, biological control and natural compounds for plant health, organic food systems and sustainability assessment, consumer, marketing, and business models, socio-economic aspects and support policies, and organic food and value-added processes and products.

UNIT I - Research methodology and tools: The unit aims to provide students with a thorough understanding of the fundamental principles, methodologies, and instruments used in scientific research across diverse disciplines. Students will acquire proficiency in analysing and handling research data, as well as in mastering the art of scientific writing and effective communication (storytelling).

UNIT II - Advanced research in organic food and farming systems: the unit provides students with an understanding of cross-disciplinary collaboration in research and innovation, as well as the ability to design research projects. Students will be equipped with the knowledge and skills necessary to design and manage project proposals and to identify the most promising funding programmes.