

# THE SCHOOL OF AGRICULTURAL SCIENCES AND VETERINARY MEDICINE

The School of Agricultural Sciences and Veterinary Medicine coordinates the Degree programmes courses offered by the Departments of the Agripolis Campus:

- BCA Department of Comparative Biomedicine and Food Science
- DAFNAE Department of Agronomy, Food, Natural Resources, Animals and Environment
- MAPS Department of Animal Medicine, Production and Health
- TESAF Department of Land, Environment, Agriculture and Forestry



Teaching activities take place in modern laboratories such as that of the veterinary hospital, and in innovative didactic structures to support teaching and practical activities in the Agripolis Campus.

The School of Agricultural Sciences and Veterinary Medicine offers 22 degree programmes, divided as follows:

- 11 Bachelor's degree programmes, one of which is taught in English (Animal Care)
- 1 single-cycle Master's degree programme
- 10 Master's degree programmes, five of which are taught in English (Biotechnologies for Food science, Food and Health, Forest Science, Italian Food and Wine, Sustainable Agriculture).

If you have been awarded an Italian entry qualification title, for more information please follow this link:



If you have been awarded an International Bachelor's degree/Secondary School diploma, for more information please follow this link:



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School of Agricultural Sciences and Veterinary Medicine MASTER'S DEGREE PROGRAMME **BIOTECHNOLOGIES FOR FOOD SCIENCE** 

#### **PRESENTATION**

The course provides advanced learning and develops professional skills for planning and coordinating complex activities in the biotechnology sector. More specifically, upon course completion the student will be able to implement innovative technologies applied to food production and control of food quality and safety. The course is articulated in two curricula: "Biotecnologie per l'alimentazione" (taught in Italian), and "Biotechnologies for food science" (in English), that might include also courses taught in both languages. In the first 18 months (three semesters), students will acquire highly specialized knowledge through lectures and a substantial share of practical lab experience. Such a knowledge will span from biotechnological methods to analysis of agro-food production chain. The last semester is entirely dedicated to experimental activity (lab internship) for the final exam. Lab internship may be carried out at universities, public and private institutions, and private companies that have signed an agreement with the University of Padova, as well as at laboratories abroad that have collaboration or exchange agreements and offer opportunities for research on themes coherent with the MSc course learning goals.

#### OCCUPATIONAL OPPORTUNITIES

After successful completion of the MSc course in Biotechnologies for Food Science, our students will have a high professional profile enabling them to occupy positions of responsibility in R&D departments for companies in the biotechnology sector as well as those ones involved in primary production, food processing, food storage, and large retail chains.

Additional job opportunities might be found in public and private institutions that are active in food analysis, control, and certification, protection and valorization of typical food products, in higher education institutions, or as self-employed consultants.





**LANGUAGE** English and Italian



STUDY LOCATION Legnaro (PD)

#### ACCESS TO THE DEGREE PROGRAMME

According to the requirements specified in the "Call for admission" or on page https://apply.unipd.it



CLASS OF DEGREE LM-9
Pharmaceutical, Veterinary and Medical biotechnologies

School of Agricultural Sciences and Veterinary Medicine MASTER'S DEGREE PROGRAMME **FOOD AND HEALTH** 



#### **PRESENTATION**

The degree programme, held in English, is based on the "from food harvest" to global health" paradigm (European Commission, 2020) and provides advanced training in the field of food and health, from an environmental sustainability perspective. The educational project includes a training programme that evolves from the analysis of the environmental footprint of harvest and post-harvest of food products and continues with economic and analysis aspects of the agri-food market, the issues concerning food safety, the aspects related to human nutrition, the mechanisms of metabolic regulation and the interaction between organism and food, dealing with physiology and food-related diseases too.

The degree programme, which has a strong multidisciplinary approach, aims at interconnecting the specific disciplines offered within this field, while providing different, yet complementary and integrated, knowledge, following a sequential path. To meet these objectives it is necessary to adopt an integrated, systematic and multi-disciplinary teaching approach, one with an international perspective and therefore taught in English.

# OCCUPATIONAL OPPORTUNITIES

The programme intends to train a new professional who can understand the problems in the field of agri-food, nutrition and human health, thus assuming the trait-d'union role between the various fields.

The professional profile of Food and Health graduates may undertake roles of responsibility both in the public-institutional sector and the private sector. Employment opportunities may vary, including: production, processing and trading of agri-food products and goods, food industry, public and private catering, health sector in the nutrition and dietary field, public health and prevention, public and private research.

Graduates of the programme may be employed by agri-food industries, catering companies and pharmaceutical and large-scale industries. They may provide public and private counselling activities, training, education and dissemination activities on food quality, sustainability and safety to encourage the adoption of correct food habits and prevent and/or treat diseases.





**LANGUAGE** English



STUDY LOCATION Leanaro (PD)

#### ACCESS TO THE DEGREE PROGRAMME

According to the requirements specified in the "Call for admission" or on page https://apply.unipd.it



**CLASS OF DEGREE** LM-61 Nutrition



School of Agricultural Sciences and Veterinary Medicine MASTER'S DEGREE PROGRAMME **FOREST SCIENCE** 

#### **PRESENTATION**

Held in English, the course is characterized by a holistic, innovative and international approach. Forest Science offers two different curricula: "Forest and Land Management" trains students in sustainable management, conservation and integrated enhancement of natural environments, while "Forest and Nature for the Future" training students in the governance of forests and natural resources, in relation to climate change and other modern challenges. The course covers a large number of disciplines including statistics, computer science, GIS techniques, research and project management methods, as well as covering responsible planning and supervision of forest resources and natural habitats.

Students have also the opportunity to participate to the TRANSFOR-M double degree and to spend their second year of study in a Canadian university (i.e. University of Alberta, or University of British Columbia, or University of New Brunswig) and acquire, at the end of their studies, two degree titles. The programme participates also in Erasmus Mundus double degrees programme.

# OCCUPATIONAL OPPORTUNITIES

The graduate will find career opportunities in public and private institutions, agencies, Governmental and Non-Governmental Organisations working as planner, designer, manager and supervisor in the field of sustainable and responsible management of forests, natural and semi-natural habitats, land management and protection, landscape management, use and valorisation of forest resources and ecosystems services nationally or internationally. In addition, this high profile educational path facilitates access to basic or applied research or to doctoral programmes in Italy or abroad.





**LANGUAGE** English



STUDY LOCATION Legnaro (PD)

# ACCESS TO THE DEGREE PROGRAMME

According to the requirements specified in the "Call for admission" or on page https://apply.unipd.it



CLASS OF DEGREE LM-73 Environmental and forestry sciences

School of Agricultural Sciences and Veterinary Medicine MASTER'S DEGREE PROGRAMME **ITALIAN FOOD AND WINE** 



#### **PRESENTATION**

Held in English, this course is designed to enable graduates to understand, manage, promote and protect high-value food products including wine. The internationally-recognized Italian food production system is used as a model for defining and characterizing the individual elements that contribute to the unique value of food products, inextricably linked to place of origin through historical, social and cultural ties (terroir). In response to a growing demand for "territorybased" quality productions on the international market, the course also explores the role of the "Mediterranean diet" in this context.

By means of lectures, laboratory and field activities, practical exercises, and seminars by experts, students will be able to deeply understand the multi-faceted characteristics that distinguish Italian foods from others in the marketplace, and how these can be exploited in products' valorisation and consumer information strategies.

# OCCUPATIONAL OPPORTUNITIES

The multidisciplinary nature of the course will equip graduates with the professional skills needed to manage the complex system of producing high-value foods and wines whose quality is profoundly linked to traditions and place of origins, so that, upon the completion of the course, students will have a broad vision within the professional sector of high-quality food and wine.

Therefore, graduates will be able to operate in the technical and economical management, valorization and protection of high quality agri-food products - in an export and territorial development-oriented perspective - by using the Italian system as the reference model. Graduates will find employment opportunities in quality-oriented agri-food companies, in producers' organizations, and in public and private consultancy companies involved in the protection, valorization, marketing, consulting, training and communication activities for high-quality agro-food products.





**LANGUAGE** English



STUDY LOCATION Leanaro (PD)

# ACCESS TO THE DEGREE PROGRAMME

According to the requirements specified in the "Call for admission" or on page https://apply.unipd.it



**CLASS OF DEGREE** LM-70 Food science



School of Agricultural Sciences and Veterinary Medicine

MASTER'S DEGREE PROGRAMME

AGRICULTURAL SCIENCE AND TECHNOLOGY

#### **PRESENTATION**

The course, held in Italian, is focused on agricultural and zootechnical systems. Students are provided with the tools needed to interpret, describe, and resolve issues within the agro-zootechnical field. Particular attention is given to the relationship between production techniques (plants and animals) and the environment.

This course is in response to today's needs of guaranteeing the quality and health of products, while respecting the environment and managing water resources. The course offers a complete range of training techniques.

Student will be introduced to the basic understanding of the economic and agricultural policy fields by addressing issues such as genetic improvement, fertility and plant nutrition, as well as agricultural mechanization.

The course also covers the arboriculture sector including, protected crops, animal husbandry, biological control, land and water resource management, professional appraisal, and agricultural law.

# OCCUPATIONAL OPPORTUNITIES

The graduate can perform planning, management, control and coordination activity on agricultural production systems in order to satisfy market and consumer needs in terms of quality, security and safety of agricultural products. He is able to minimize inputs used in the system, thus preserving the environment, not only in the food production chain but also as regard landscape and historical and cultural contexts. He is also able to participate in setting up and managing some base and applied research projects.

His activity is mainly performed in firms of the Primary sector as far as production aspects are concerned, and in the Agroindustry and public organization for planning, analysis, control certification tasks. The graduate can apply for the exam for the "professional order".





**LANGUAGE** 



STUDY LOCATION Legnaro (PD)



According to the requirements specified in the "Call for admission"



CLASS OF DEGREE LM-69
Agriculture

School of Agricultural Sciences and Veterinary Medicine MASTER'S DEGREE PROGRAMME **FOOD SCIENCE AND TECHNOLOGY** 



# **PRESENTATION**

The course, held in Italian, provides advanced knowledge and trains professionals suitable for carrying out control, management and coordination activities within the agri-food supply chain, in order to guarantee the safety, quality and wholesomeness of food. Preference is given to an interdisciplinary approach aimed at acquiring transversal knowledge that represents, for the graduate, the necessary tools to evaluate and solve complex problems in the food sector.

The training course includes specific in-depth studies concerning the chemical, physical, sensorial, technological and regulatory quality of foods of both plant and animal origin, as well as the acquisition of advanced knowledge in the biotechnological, analytical and economic fields. To complete this path, it is foreseen the acquisition of knowledge on specialized subjects, which the student chooses based on his / her own attitudes and interests.

# OCCUPATIONAL OPPORTUNITIES

The Master graduate will be able to perform, at a high level of qualification. management, planning activities, as well as solving complex problems of the food industry (production, processing and preservation of food products), in large-scale retail companies, in collective catering and in public and private institutions that carry out analysis, control, certification and training in the agri-food sector, as well as in the research field.





LANGUAGE Italian



STUDY LOCATION Leanaro (PD)

# ACCESS TO THE DEGREE PROGRAMME

According to the requirements specified in the "Call for admission"



**CLASS OF DEGREE** LM-70 Food science



School of Agricultural Sciences and Veterinary Medicine MASTER'S DEGREE PROGRAMME ANIMAL SCIENCE AND TECHNOLOGY

# **PRESENTATION**

The course, held in Italian, provides students with the advanced knowledge needed to carry out the design and coordination activities for the agro-zootechnical sector in an efficient manner. The programme is organised into three areas:

- a) efficiency of production processes and quality of animal products, which are developed through teaching activities dealing with the analysis of the evolution of the agri-food chains with regard to society needs, hygiene and health of animal products;
- b)protection of animal welfare, biodiversity, and the environment, which are developed through teaching activities dealing with the improvement of animal wellbeing in livestock farms and the development of sustainable livestock systems, the management of biodiversity and food safety, the improvement of feeding and agronomic strategies to reduce the environmental impact of livestock sector;
- c) economic, statistical and IT tools for livestock farms and the agricultural chain, which are provided through teaching activities dealing with the economic assessment of rural areas and livestock farms, the project of livestock facilities and systems for the management and valorisation of animal wastes, the statistical and IT tools applied to the agri-food chain, the strengthening of English language and the introduction to professional activity.

# **OCCUPATIONAL OPPORTUNITIES**

Graduates can be employed in companies involved in animal genetic selection and improvement of livestock species, acquisition and manufacturing of raw materials, production, transformation and marketing of animal products

They will be able to work with breeders organizations and associations, livestock chain industries, in business organizations, mass-market retailers and with public and private bodies that conduct planning, analysis, control and certification activities.

Graduates can also be employed in teaching of agronomy and livestock husbandry disciplines at the high school or exercise private activity as agronomist and zoonomist.





LANGUAGE Italian



STUDY LOCATION Legnaro (PD)

# **ACCESS TO THE DEGREE PROGRAMME**

According to the requirements specified in the "Call for admission"



CLASS OF DEGREE LM-86 Livestock management School of Agricultural Sciences and Veterinary Medicine

# MASTER'S DEGREE PROGRAMME

# LAND AND ENVIRONMENT **SCIENCE AND TECHNOLOGY**



#### **PRESENTATION**

The course, held in Italian, is inspired by the principles of ecological and environmental sustainability. It aimed at those who wish to acquire advanced knowledge on the complexity of natural systems and environmental processes, on methods and technologies for prevention, de-pollution and remediation, as well as for the protection of human beings and environment.

The student will be able to identify, evaluate and manage the interactions between the components of environmental systems and between the factors which determine environmental processes and issues, develop methods and techniques aimed at investigating the territory and analysing data, as well as dealing with safety, quality and health of the different sections of the anthropic environment.

# OCCUPATIONAL OPPORTUNITIES

Graduate students carry out planning, management, control, coordination and training activities regarding environmental issues of analysis, monitoring, conservation, valorization and restoration, with particular emphasis to the human impacts. The main objective of their professional activity concerns the sustainable management of environmental resources, by embracing and proposing innovations from different private and public sectors and practitioners, on subjects regarding alternative energy, use of water resources, biodiversity conservation, territorial analysis, programming of monitoring plans, valuation of environmental quality objectives, reporting statistics and documents, training of environmental practitioners.





LANGUAGE Italian



STUDY LOCATION Leanaro (PD)

# ACCESS TO THE DEGREE PROGRAMME

According to the requirements specified in the "Call for admission"



**CLASS OF DEGREE** LM-75 Environmental and land sciences

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School of Agricultural Sciences and Veterinary Medicine MASTER'S DEGREE PROGRAMME FORESTRY AND ENVIRONMENTAL SCIENCE

#### **PRESENTATION**

The course, held in Italian, provides the most advanced knowledge in those disciplines that analyse and understand the relationships between forest ecosystems and human activities. Through a specialized multidisciplinary education (biological, technical-engineering and economic), the student acquires full awareness of the complexity of natural, semi-natural and anthropic systems and the related problems that descend from the need to combine the management of resources and their protection, with a specific focus on forest and grassland ecosystems and water cycle, especially in mountain areas.

The Course is structured in five specializations: Wood science and technology (FL), Land protection (PT), Agroforestry systems (SAF), Biodiversity protection (TB); Urban and periurban green areas (VUP). The Course is aimed at providing technical and scientific skills necessary to achieve some of the Sustainable Development Goals of the United Nations 2030 Agenda.

#### **OCCUPATIONAL OPPORTUNITIES**

The graduate can carry out tasks of planning, management, control, coordination and training in public and private structures working on environmental planning and protection, sustainable management of natural and forest resources, protection of environment and nature, management of agroforestry systems, enhancement of wood, wood products and forest biomass also for energy use, analysis and evaluation of ecosystem services, restoration of ecosystem post-disturbance, management of urban green areas and landscapes.

The graduate may take the relevant State Exam of the Italian Council of Agronomists and Foresters (Albo dei dottori agronomi e dottori forestali) in Section A - Agronomists and Foresters.





LANGUAGE Italian



**STUDY LOCATION** Legnaro (PD)

# ACCESS TO THE DEGREE PROGRAMME

According to the requirements specified in the "Call for admission"



CLASS OF DEGREE LM-73 Environmental and forestry sciences

School of Agricultural Sciences and Veterinary Medicine MASTER'S DEGREE PROGRAMME SUSTAINABLE AGRICULTURE



#### **PRESENTATION**

With a global approach to issues related to sustainability and food safety, this course, held in English, aims to provide advanced knowledge in the field of agricultural systems and train professionals capable of developing and managing sustainable production systems. This path, which offers different possibilities of study abroad, is divided into two areas of study: the productive area, connected to agronomy and plant and animal production, and the technological area, management-oriented, dealing with the protection and enhancement of air, water, soil and the management of rural areas and production processes.

With the aim of strengthening this global approach to sustainability and food security, the degree program has been included in an internationalization project in collaboration with the University of Georgia, USA, which enables students to achieve a dual degree in 'Sustainable Agriculture' (Italy) and 'Crop and Soil Science' (USA) and partecipate at the Erasmus Mundus Joint Master Degrees for the double degree in Plant Health in Sustainable Cropping Systems, Erasmus+ Programme Key Action 1.

# OCCUPATIONAL OPPORTUNITIES

Graduates will be able to operate internationally by conducting activities of planning and management of agricultural production processes, to meet the needs of the international market.

Graduates will also be involved in research and experimentation in both the public or private sector, they interact with international bodies such as FAO, EU and World Bank, promote technology transfer (innovation brokers), manage international technical and commercial relations related to agricultural and processing products and related to agricultural mechanization.





**LANGUAGE** English



STUDY LOCATION Leanaro (PD)

#### ACCESS TO THE DEGREE PROGRAMME

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# FOR MORE INFORMATION

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# **School**

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# **Tutor**

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