Course structure

120 ECTS – 2 years

12 course units
120 ECTS – 2 years

Applied genomics for animal and crop improvement

Applied Bionformatics

Food Microbiology and Food Microbial Biotechnology

Molecular basis of disease, immunology, and transmissible diseases

Laboratory of advanced DNA, RNA, and protein analysis

Biotechnology for crop production

Epidemiology and risk analysis

Traceability tools for species authentication

Advanced technologies for the agrifood sector (nanotechnologies, proteomics, metabolomics)

Biotechnology for plant protection

Food toxicology and food regulation

Foreign language (English)

www.unipd.it

The **University of Padova,** founded in 1222, is one of Europe's oldest and most prestigious seats of learning; it is a multi-disciplinary university that aims to provide its students with both professional training and a solid cultural background.

The University of Padova ranked first among leading Italian universities for the quality of its research (2004-2010 Italian Research Assessment).

A qualification from the University of Padova is a symbol of having achieved an ambitious objective, one that is recognized and covered by both students and employers alike.

www.unipd.it/en/biotecnologie-alimentazione

Biotechnologiesforfoodscience.bca@unipd.it

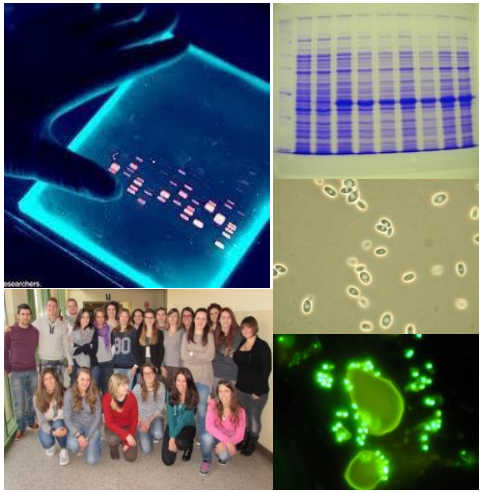
UNIVERSITÀ DEGLI STUDI DI PADOVA

SCHOOL OF AGRICULTURAL SCIENCES AND VETERINARY MEDICINE

Master Degree in

BIOTECHNOLOGIES FOR FOOD SCIENCE

Second Cycle Degree



Course description

In the 2016-2017 academic year, the University of Padova inaugurated a new curriculum of the Master Degree (Second Cycle Degree) entitled “Biotechnologies for Food Science " to be entirely taught in English.
The “Biotechnologies for Food Science " Master degree (MSc) is an interdisciplinary and research-oriented Master of Science programme focused on the application of advanced biotechnologies in food production and safety. It explores how to produce healthier and safer food following a cross-cutting, farm/field-to-fork approach. The course has a strong component on cutting-edge methods, such as genomics, bioinformatics, proteomics, metabolomics, nanotechnologies, all in the context of animal and crop production as well as food quality and safety. Theoretical lessons are mixed with practical training, offering hands-on experience in advanced DNA, RNA, and protein analysis together with substantial lab sessions in bioinformatics. Knowledge of disease mechanisms and pathogens is essential to understand how to protect crop and farm animals and how food might impact on human health. The course moves across animal infectious disease, immunology, microbiology, plant pests and pathogens to show how biotechnology might help preventing disease and improve food production. Consumers are increasingly worried about the presence of contaminants in food and on the real origin of what they eat; for these reasons, the programme includes a course in food toxicology and regulation, and one on traceability for food authentication.
Our programme is based in the Agripolis campus, where four departments of the School of Agriculture and Veterinary Medicine of the University of Padova are located; all of them contribute to the MSc course, offering the best opportunities for a rich, cross-disciplinary experience in a highly qualified scientific environment.
Opportunities for intensive tutoring and for master thesis-related stages of at least six months duration will be available with outstanding in this sector of the food industry or with other relevant national and international organizations in the private or public sphere.
This programme is open to Italian and foreign students both in the EU and abroad. Teaching will include lectures, laboratory and field activities, Opportunities for intensive tutoring and for master thesis-related stages of at least six months duration will be available with outstanding companies in this sector of the food industry or with other relevant organisations in the private or public sphere.

Professional opportunities

As advanced biotechnologies increasingly move from research to production, the job market demands professional profiles that have a strong technological background and, at the same time are able to move across a variety of other specialized disciplines, and interact with all the different actors in the agri-food sector.
The broad cross-disciplinary expertise offered by our MSc programme, will open job opportunities in private and public research centers, in public institutions dealing with animal health and food safety, in the private agro-food sector, at various levels from animal and crop production, food processing, to large food retail chains.

Access requirements

-three year university degree (BSc) or equivalent

- English knowledge: minimum B2 level (CEFR)

Specific curriculum requirements are detailed in the Admission Notice:

www.unipd.it/en/biotecnologie-alimentazione

Places available

There is no limited number for EU citizens and non-EU citizens resident in Italy, who meet the access requirements;
20 positions are reserved for non-European Union citizens resident abroad (1 Marco Polo student).

Information

Biotechnologiesforfoodscience.bca@unipd.it

Application deadline

See the Admission Notice at
www.unipd.it/en/biotecnologie-alimentazione