



THE PROGRAMMES OF THE FACULTY OF

# AGRICULTURE, FOOD, AND ENVIRONMENTAL SCIENCES

















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## ABOUT US

UNIVERSITÀ CATTOLICA, ACCORDING TO THE SPIRIT OF ITS FOUNDERS,
HAS THE OBJECTIVE OF ENSURING THE PRESENCE IN THE UNIVERSITY
AND THE CULTURAL WORLD OF PEOPLE COMMITTED TO FACE
AND RESOLVE, IN THE LIGHT OF THE CHRISTIAN MESSAGE
AND MORAL PRINCIPLES, THE PROBLEMS OF SOCIETY AND CULTURE.

The Statute of Università Cattolica, Article 1

## EVERYTHING WE ARE IS IN OUR VALUES

We believe in the person. Because we educate women and men, before professionals, so that everyone can express their full potential.

We believe in the freedom of thought. So that the human and professional baggage that we give our students can always be an ally for them in their future.

We believe in society so that everything we give to each student becomes a resource for society, which we want to imbue with professionalism but above all with humanity and trust.

Above all, we believe in the future with sensible optimism, because building the future is a commitment, but what makes it possible is to build it together, cultivating everyone's inclinations.

#### WHY UNIVERSITÀ CATTOLICA?

**Because** here everyone can feel free to express their potential.

**Because** here each path is individual, as is the sensitivity of each one.

**Because** here everyone is put in the position to give their best.

**Because** here every person counts and is part of a community to be cultivated with care.

**Because** our history is made up of our past, but above all of today's commitment to planning an unprecedented tomorrow.





CAREER

## FACULTY OF AGRICULTURE, FOOD AND ENVIRONMENTAL SCIENCES

at Università Cattolica

#### **IDEAS, HISTORY, VALUES**

The Faculty of Agriculture, Food and Environmental Sciences has a long and prestigious tradition. Founded in 1953, it was the first Faculty of the Piacenza campus of Università Cattolica and is currently an absolute reference point, internationally recognised for its advances in the field of scientific research as well as for the quality and innovation of its teaching activities.

For students, it is an avant-garde, dynamic and open environment; most of the courses include practical laboratory experiences, such as the Sensory Lab or the wine cellar, experiences on the field, such as in the vineyard or in the experimental barn.

The topics addressed in the classroom are highly topical and cover all the dimensions and stages of the agri-food system, following the logic defined as 'from farm to fork' (from the field to the table).

We study the evolution of the most sophisticated agricultural production techniques, as well as those of the most modern industrial processing techniques: everything is inspired by the principles of sustainability and environmental responsibility.

Agriculture 4.0 in response to climate change, the sustainability of the agrifood chain, new healthy lifestyles, the combination of tradition and innovation, the potential of Italian food products in international markets: these are just some of the topics that will be discussed in depth by our lecturers.

I BELIEVE THAT CONTEMPORARY UNIVERSITY,

IF IT HAS THE DUTY TO OF COLLABORATE

For the progress of sciences and to

FOLLOW THE METHODOLOGY REQUIRED

By each of them, must never put

In the second place what requires

THE RECOGNITION OF ITS PRIMACY,

NAMELY HUMANS, THE HUMAN PERSON,

THE WORLD AND SPIRITUALITY

**Father Agostino Gemelli,** Founder of Università Cattolica



LOCATED IN THE CENTRE OF THE SO-CALLED FOOD VALLEY, OUR FACULTY CAN BOAST A DENSE

NETWORK OF VERY CLOSE AND COLLABORATIVE RELATIONSHIPS WITH THE MOST IMPORTANT COMPANIES

OPERATING IN THE AGRI-FOOD WORLDOPERATING IN THE AGRI-FOOD WORLD. ALSO THANKS TO THESE

VALUABLE SYNERGIES, STUDENTS HAVE ACCESS TO A WIDE VARIETY OF PROFESSIONS, SO MUCH SO THAT

FOR MANY OF THEM IT IS POSSIBLE TO DO AN INTERNSHIPEXPERIENCE DURING THEIR STUDIES

AND, ABOVE ALL, AT THE END OF THEIR STUDIES, 90% OF GRADUATES FIND A JOB THAT IS

CONSISTENT WITH THEIR SKILLS WITHIN SIX MONTHS OF GRADUATION.

Marco Trevisan,

Dean of the Faculty of Agriculture, Food and Environmental Sciences



#### THE ACADEMIC OFFER

The Faculty of Agriculture, Food and Environmental Sciences offers training courses that are constantly open to innovation and allows you to choose between three different courses of study for the development of in-depth and qualified skills. All courses have in common a fruitful and constant exchange with the business world as well as serious and passionate teaching that guarantees a high level of student satisfaction and involvement.

The undergraduate programmes offered by the Faculty are:

- Agricultural Science and Technology (degree class L-25) in Piacenza
- Food Science and Technology (degree class L-26) in Piacenza and Cremona
- Food Production Management (SAFE) (degree classes L25/L26) in Piacenza (course delivered entirely in English)

Depending on your inclinations, you can choose a particular profile within these programmes. In particular, within the first two degree programmes, it is possible to opt for a specialisation profile in Viticulture and Enology, which is an area of strong distinction for the Faculty in the national and international academic panorama.

After the undergraduate programme, it is possible to continue with a graduate programme. At the moment there are two graduate programmes in Sustainable and Precision Agriculture and Food Science and Technology at the Piacenza campus. In the former, there are three specialisation profiles: Sustainable Viticulture and Enology, Sustainable and Precision Agriculture and Sustainable and Precision Animal Husbandry. The first profile (the viticulture and enology profile) is characterised by a second year of teaching delivered almost entirely in English. At our campus in Cremona three graduate degree programmes entirely delivered in English are offered graduate programme delivered entirely in English:

Agricultural and Food Economics. In this field, it is possible to obtain a double degree: the Italian graduate degree and the Master in Management, Livestock and agro-green innovation, Food processing: innovation and tradition.

#### SPIN OFF

In recent years, the faculty of agriculture, food and environmental sciences has set up 4 spin-offs, i.e. companies ABLE TO PUT INTO PRACTICE AT BUSINESS AND PRODUCTION LEVEL THE IDEAS GENERATED BY UNIVERSITY TECHNOLOGICAL RESEARCH. aat, aeiforia, horta and vsafe, which provide, both nationally and internationally, highly qualified services In the field of plant production with the Aim of increasing the competitiveness of agricultural and agri-food enterprises . SPIN-OFFS ARE ALSO A CONCRETE DEMONSTRATION OF THE HIGH LEVEL OF PROFESSIONALISM ACQUIRED BY THE FACULTY GRADUATES, Who manage to become innovative entrepreneur.



#### LIVING THE UNIVERSITY

Daily life at the Faculty of Agriculture, Food and Environmental Sciences is a stimulating experience and full of opportunities, thanks to:

- the availability of modern and well-equipped laboratories, real 'gyms' of practical learning;
- the opportunity to carry out internships in companies during and after your studies, developing valuable experience in the world of work;
- a balanced numerical ratio between professors/lecturers and students, which encourages direct and constant interaction with professors and tutors (recent graduates or researchers); this makes it possible to overcome any learning difficulties and to maximise the skills acquired during the training course.

The Faculty, thanks also to the intense research activity carried out through its scientific institutes and specialised research centres, encourages the cultural and professional growth of its students and offers a diversified education in line with the needs expressed by the job market, not only at a national level. Cooperation agreements are in place with foreign universities for specific projects, European Union research projects involving or coordinated by the Faculty's institutes and research centres.



#### EDUCATION ATTENTIVE TO TRADITION AND OPEN TO INNOVATION



#### **ADMISSION CRITERIA**

Access to degree programmes is by simple chronological order, i.e. according to the order in which enrolments are received. The places available for each degree programme are regulated by the notice issued each year by the Faculty.





## **PIACENZA**

#### AGRICULTURAL SCIENCES AND TECHNOLOGIES

- Agricultural Science and Technology
- Viticulture and Enology

#### FOOD SCIENCE AND TECHNOLOGY

- Food Science and Technology
- Viticulture and Enology

#### FOOD PRODUCTION MANAGEMENT (SAFE)

## **CREMONA**

FOOD SCIENCE AND TECHNOLOGY

## AGRICULTURAL SCIENCE AND TECHNOLOGY

Studying **Agricultural Science and Technology** at the Piacenza Campus means becoming technicians capable of managing and solving problems related to the management of agricultural systems, based on sound basic knowledge and methods and adequate technical knowledge in the plant and animal production sectors. The progress of the sector requires the training of culturally and technically qualified personnel, capable of managing, through the use of the most modern technologies, an agriculture that produces safe food for the consumer, maintains the productivity of the soil and animals and the profitability of agricultural enterprises, while respecting the environment

#### THE STRUCTURE OF THE PROGRAMME

The programme includes common courses and courses aimed at deepening more specific topics, to which two different profiles are dedicated:

- Agricultural Science and Technology
- Viticulture and Enology

The course of study aims at training technicians capable of managing agriculture according to modern concepts of economic, environmental and social sustainability.

#### PROFESSIONAL OUTLETS

Graduates in Agricultural Science and Technology will be able to practise their profession as junior agronomists and enologists, both in traditional and in integrated and organic farming. They will also be qualified technicians for the management of:

- Agricultural and wine companies
- Livestock companies
- Agro-food industries
- Feed industry
- Seed industry
- Cooperatives
- Consortia
- Trade associations
- Agricultural credit institutions

The degree also allows the direct continuation of studies in graduate degree programmes and ensures various types of professionalism in the fields of plant and animal production, economic-management, viticulture and enology.

#### Degree coordinator

Prof. Francesco Masoero francesco.masoero@unicatt.it

NOTE THEOLOGY COURSES

The study plan provides for the attendance of Theology courses, in order to offer a motivated, reasoned and organic knowledge of the Catholic faith. The programme is delivered over the three years. Classes take place 3 hours per week for 12 weeks, and the course is divided into the following themes:

- I year: Fundamental issues: Christological faith and Holy Scripture;
- II year: Matters of theological anthropology and ecclesiology;
- III year: Theological questions of Christian ethics and morals.



### STUDY PLANS

The study plans indicated below and the credits assigned to each course offer a hint of the subjects that make up the degree programme. The tables are useful to understand which the reference disciplines are, but you need to know that they may be subject to change. Final study plans will be published in the specific Faculty guide and on the University website.

## AGRICULTURAL SCIENCE AND TECHNOLOGY Campus of Piacenza

#### **PROFILE**

#### AGRICULTURAL SCIENCE AND TECHNOLOGY

The Agricultural Science and Technology profile combines basic training and methodology in the discipline of agriculture with continually updated operational and laboratory skills, and enables adaptation to the various types of professionalism possible in agriculture, thanks to the study of specific subjects such as animal anatomy and morphophysiology, animal nutrition and feeding, zootechnics, herbaceous crops, tree crops, plant pathology and others of your choice.

FIRST YEAR	ETCS
General and Systematic Botany	11
General and Inorganic Chemistry	7
Organic Chemistry	7
Physics	6
Mathematics	6
Institutions of Political Economy and Statistics Political Economy Module (6 ECTS), Statistics Module (6 ECTS)	12
ICT and Information Society	3
English <sup>(*)</sup> (basic course B1) or English <sup>(*)</sup> (basic course B2)	2

<sup>&</sup>lt;sup>(\*)</sup> Inclusion in the basic B1 or B2 course is established through a SeLdA test at the beginning of the lessons

SECOND YEAR (not activated in the a.y. 2021-2022)	ETCS
Animal Anatomy and Morphophysiology	7
Biochemistry	8
Biology of Micro-organisms	8
Soil Chemistry	6
Agricultural Genetics	8
Morpho-physiology and Fundamentals of Genetics of Animal Metabolism	7
Agricultural Economics and Policy with Elements of Valuation Agricultural Economics and Policy (6 ECTS), Elements Module estimation (3 ECTS)	9
Animal Nutrition and Feeding	7
English Language (Scientific English)	2
Electives	0-6
THIRD YEAR (not activated in the a.y. 2021-2022)	ETCS
General Arboriculture	6
General Agronomy	8
General Agronomy Herbaceous Crops	8
0 .	
Herbaceous Crops	8
Herbaceous Crops Agricultural Entomology	8 7
Herbaceous Crops  Agricultural Entomology  Plant Pathology  Zootechnics:	8 7 8
Herbaceous Crops  Agricultural Entomology  Plant Pathology  Zootechnics: Ruminants Module (4 ECTS), Monogastrics Module (4 ECTS)	8 7 8

Without prejudice to the student's possibility of choosing any course offered by the University, the Faculty suggests completing the study plan by choosing from the following courses:

Agricultural Mechanisation (6 ECTS)

Biomass Use and Recycling (6 ECTS)

Plant Health in the Urban Environment (6 ECTS)

Biodiversity and Traceability of Agricultural Products (not delivered a.a. 2020/21) (6 ECTS)

- Animal Biodiversity Module (3 ECTS)
- Plant Biodiversity Module (3 ECTS)
- Viticulture II (Cultivation Techniques) (6 ECTS)

In addition, in the third year students will be able to choose as a suprenumerary course the course of Interacting in English (1 ECTS) worth 1 suprenumerary ECTS This supernumerary credit can be used in the graduate degree programme to cover the credits foreseen for other training activities.

Please note that to enroll in the graduate degree programmes LM70 it is necessary to insert in the electives a course in the scientific-disciplinary field AGR/15 of at least 6 ECTS.

#### **PROFILE VITICULTURE AND ENOLOGY**

The Viticulture and Enology profile is based on a training path that consolidates interdisciplinary agricultural skills with a specialisation in the field of viticulture and enology, qualifying for the profession of enologist in Italy and Europe, with scientific and technical skills capable of operating in the entire production chain of the wine sector.

FIRST YEAR	ETCS
General and Systematic Botany	11
General and Inorganic Chemistry	7
Organic chemistry	7
Physics	6
Mathematics	6
Institutions of Political Economy and Statistics Political Economy Module (6 ECTS), Statistics Module (6 ECTS)	12
ICT and Information Society	3
English $^{(*)}$ (basic course B1) $\mathit{or}\ \mathrm{English}^{(*)}$ (basic course B2)	2

 $<sup>^{(7)}</sup>$  Inclusion in the basic B1 or B2 course is determined by a SeLdA test at the start of lessons.

SECOND YEAR	ETCS
Biochemistry	8
Soil Chemistry	6
Enological Equipment and Technology	6
Agricultural Genetics	8
Agricultural Economics and Policy with Elements of Valuation Agricultural Economics and Policy (6 ECTS), Module Elements of Quantity Surveying (3 ECTS)	9
Biology of Micro-organisms	8
Enology I (Chemistry and microbiology)	6
English (Scientific English)	2
Electives	0-6

THIRD YEAR	ETCS
General Arboriculture	6
General Agronomy	8
Agricultural Entomology	7
Oenology II ( Processes)	6
Plant Pathology	8
Viticulture I Morphology and Physiology Module (8 ECTS), Module Ampelography and grape varieties (4 ECTS)	12
Internship	10
Electives	6-12
Final examination	4

Without prejudice to the student's possibility of choosing any course offered by the University, the Faculty suggests completing the study plan by choosing one of the following courses, also with a view to subsequently obtaining the title of Enologist: Quality control (6 ECTS)

Viticulture II (Cultivation Techniques) (6 ECTS)(\*\*)

In addition, in the third year students will be able to choose as a suprenumerary course the course of:

This supernumerary credit can be used in the graduate degree programme to cover the credits foreseen for other training activities.

(\*) This course is only available to students enrolled in the third year.

(\*\*) This supernumerary credit may be used in the graduate degree programme to cover credits for other training activities.

## FOOD SCIENCE AND TECHNOLOGY

Made in Italy food is a world-renowned excellence and a constant strength of the national production system. In this context, the preparation of professionals able to maintain the Italian food tradition is particularly important. Food is, indeed, the energy of planet Earth and it needs experts in food production, quality management and marketing.

#### THE STRUCTURE OF THE PROGRAMME

The Food Science and Technology programme is held in Piacenza and Cremona, and it is divided into two profiles:

- Food Science and Technology (in Piacenza and Cremona)
- Viticulture and Enology (in Piacenza)

#### PROFESSIONAL OUTLETS

The programme in Food Science and Technology trains a professional figure with adequate knowledge and skills to ensure a comprehensive view of food and drink production activities, from production to consumption, also addressing the training to enology and viticulture. Graduates will be food professionals, from food production to food quality control, with multiple operational functions in:

- food companies
- large retailers
- certification bodies
- analysis laboratories
- protection consortia

#### Programme coordinators

Prof. Daniele Rama (Piacenza Campus) daniele.rama@unicatt.it Prof. Roberta Dordoni (Cremona Campus) roberta.dordoni@unicatt.it

### PLEASE THEOLOGY COURSES

The study plan provides for the attendance of Theology courses, in order to offer a motivated, reasoned and organic knowledge of the Catholic faith. The programme takes place over the three years. Classes take place 3 hours per week for 12 weeks, and the course is divided into the following themes:

- I year: Fundamental issues: Christological faith and Holy Scripture
- II year: Matters of theological anthropology and ecclesiology
- III year: Theological questions of Christian ethics and morals.



## STUDY PLAN

The study plans indicated below and the credits assigned to each course offer a hint of the subjects that make up the degree programmes. The tables are useful to understand which the reference disciplines are, but you need to know that they may be subject to change. Final study plans will be published in the specific Faculty guide and on the University website.

#### FOOD SCIENCE AND TECHNOLOGY

Piacenza Campus - Cremona Campus

#### PROFILE FOOD SCIENCE AND TECHNOLOGY

The specific objective of the profile in Food Science and Technology, active in Piacenza and Cremona, is to prepare graduates with sound basic knowledge and operational skills that can be used, according to different professional profiles, within the food production chain.

FIRST YEAR	ETCS
Physics	6
Mathematics	6
Products of Plant Origin Arboreal Module (4 ECTS), Herbaceous Module (4 ECTS)	8
General Chemistry and Physical Chemistry General Chemistry Module (7 ECTS), Chemistry Module Physics (3 ECTS)	10
Organic Chemistry	7
ICT and Information Society	3
Institutions of Political Economy and Statistics Module Political Economy (6 ECTS), Module Statistics (6 ECTS)	12
English <sup>(*)</sup> (basic course B1) or English <sup>(*)</sup> (basic course B2)	2

 $<sup>^{(^{\</sup>prime})}$  Inclusion in the basic B1 or B2 course is established through a SeLdA test at the beginning of the lessons.

SECOND YEAR	ETCS
Biochemistry	8
Analytical Chemistry Module A (5 ECTS), Module B (4 ECTS)	9
Piacenza Campus Food Protection Animal Parasites Module (5 ECTS) Module Plant Pests (5 ECTS) Cremona Campus	10
Food Protection Animal Parasites Module (4 ECTS) Module Plant Pests (4 ECTS)	8
Products of Animal Origin	6
Biology of Micro-organisms	8
Agri-food Economics	6
Food Industry Installations (unit operations)	10
English (Scientific English)	2
Electives	0-6

THIRD YEAR	ETCS
Physical and Chemical Analysis of Food Products	8
Hygiene and HACCP	6
Food Microbiology	6
Human Nutrition	6
Food Technology Processes I	6
Piacenza Campus Food Technology Processes II	6
Cremona Campus Food Technology Processes II Animal Products Module (4 ECTS), Bakery Products Module (4 ECTS)	8
Internship	7
Electives	12-18
Final examination	4

Without prejudice to the student's possibility of choosing any course offered by the University, the Faculty suggests completing the study plan by choosing from the following courses.

In **Piacenza**: Chemistry and Technology of Animal Products - Meat Module (3 ECTS) - Dairy Module (3 ECTS), Marketing of Agricultural and Food Products (6 ECTS), Enology (6 ECTS), Food Law (6 ECTS).

In **Cremona**: Agri-food Marketing (6 ECTS) non available for the a.a. 2020/21, Logistics and Supply Chain management (5 ECTS), Management of Commercial Enterprises (6 ECTS), Confectionery Technology (6 ECTS).

In addition, in the third year students will be able to choose as a suprenumerary course the course of: Interacting in English (1 ECTS)(\*\*).

(\*\*) This supernumerary credit can be used in the graduate degree programme to cover the credits foreseen for other training activities.

#### Campus of Piacenza

#### PROFILE VITICULTURE AND ENOLOGY

The specific objective of the Viticulture and Oenology profile is to prepare graduates with specific skills in the field of viticulture and enology, qualifying them for the profession of enologist in Italy and Europe.

FIRST YEAR	CFU
General Chemistry and Physical Chemistry Physical Chemistry Module (3 ECTS) General Chemistry Module (7 ECTS)	10
Physics	6
Mathematics	6
Organic Chemistry	7
Institutions of Political Economy and Statistics Political Economy Module (6 Cfu) Statistics Module (6 Cfu)	12
ICT and Information Society	3
English <sup>(*)</sup> (basic course B1) <i>ore</i> English <sup>(*)</sup> (basic course B2)	2

<sup>(\*)</sup> Inclusion in the basic B1 or B2 course is established through a SeLdA test at the beginning of the lessons.

SECOND YEAR	CFU
Biochemistry	8
Analytical Chemistry Module A (5 Cfu) Module B (4 Cfu)	9
Food Protection Animal Parasites Module (5 Cfu) Module Plant Pests (5 Cfu)	10
Viticolture I Morphology and Physiology Module (8 Cfu) Ampelography and Grapevine Module (4 Cfu)	12
English II (Scientific English)	2
Biology of Micro-organisms	8
Agri-food Economics	6
$Enology\ I$ (Chemistry and microbiology)	6
Enological Equipment and Technology	6
Elective	0-6
THIRD YEAR	CFU
Physical and Chemical Analysis of Products Food Products	8
Hygiene and HACCP	6
Food Microbiology	6
Human Nutrition	6
Food Technology Processes I	6
Viticolture II (Cultivation techniques)	6
Internship	7

Without prejudice to the student's possibility of choosing any course offered by the University, the Faculty suggests completing the study plan by choosing one of the following courses, also with a view to subsequently obtaining the title of Enologist: Quality Control (Enology III) (6 ECTS)

Enology II (Processes) (6 ECTS)

Final examination

Electives

Marketing of agricultural and food products (6 ECTS)

In addition, in the third years students can choose the extracurricular course of Interacting in English (1 ECTS)(\*\*)

(\*\*) This supernumerary credit can be used in the graduate degree programme to cover the credits foreseen for the other training activities.



12-18

## FOOD PRODUCTION MANAGEMENT (SAFE)

As of September 2017, a new undergraduate degree programme entitled **Food Production Management (SAFE)** delivered entirely in English is offered. This new degree programme is aimed at students who want to learn innovative principles and techniques for producing high quality, healthy and sustainable food from the field to the table. In particular, case studies representing 'flagships' of 'Made in Italy' will be discussed.

The decision to use only English in the various teaching activities is aimed at foreign students interested in learning more about the "Italian model" of vertical coordination in the agri-food supply chain and at Italian students interested in giving their education a strong international characterisation, starting with their undergraduate degree.

#### THE STRUCTURE OF THE PROGRAMME

The Food Production Management degree programme aims to provide a general knowledge of sustainable food production and its many facets. In the first year, teaching will offer the basic statistical, physical, chemical, physiological and genetic concepts through lectures and exercises as teaching methods. In the second year, students will be introduced to applied studies in microbiology, agronomy, crop, livestock, defence and economics and transdisciplinary studies in food technology, traceability, food safety, sustainability and certification. In the third year, the focus will be on the study of some typical product chains: cereals, tomatoes, wine, cheese and sausages. The study programme will be complemented by an internship in a company and the preparation of a final paper that contribute to the ability to apply knowledge to concrete situations.

Students of the Food Production Management programme will be able to demonstrate basic and cutting-edge knowledge and understanding in their specific field of study; they will be able to apply their knowledge and understanding in a way that demonstrates a professional approach to their work and will possess adequate skills both to devise and support arguments and to solve problems in their field of study.

#### PROFESSIONAL OUTLETS

The programme in Food Production Management is an academic path on the agri-food chains of typical products with an agronomic, food, economic and environmental perspective. It provides knowledge about the development of the agri-food sector and its economic and environmental impact from different scientific perspectives. It is the first programme of its kind in Italy to focus on agri-food sustainability and its economic and environmental components.

Our SAFE programme aims at training a professional figure able to work at different levels within the main food supply chains (raw material suppliers, companies, processors, retailers and wholesalers, trade organisations) in order to maintain or improve the quality, sustainability and image of agricultural production companies.

#### Programme coordinator

Prof. Stefano Poni stefano.poni@unicatt.it

### NOTE THEOLOGY COURSES

The study plan provides for the attendance of Theology courses, in order to offer a motivated, reasoned and organic knowledge of the Catholic faith. The programme is delivered over the three years. Classes take place 3 hours per week for 12 weeks, and the course is divided into the following themes:

- I year: Fundamental issues: Christological faith and Holy Scripture;
- II year: Matters of theological anthropology and ecclesiology;
- III year: Theological questions of Christian ethics and morals.

### STUDY PLANS

The study plans indicated below and the credits assigned to each course offer a hint of the subjects that make up the degree programmes. The tables are useful to understand which the reference disciplines are, but you should be aware that they are subject to change. Final study plans will be published in the specific Faculty guide and on the University website.

## FOOD PRODUCTION MANAGEMENT (SAFE) Campus of Piacenza

The aim of the programme is to provide sound basic and methodical knowledge in order to ensure operational skills and easy adaptation to the various types of professionalism required in primary production and in production activities concerning the processing, storage, distribution and marketing of food. A knowledge of the supply chain will be ensured in order to understand the activities and problems from the production to the consumption of food and to intervene with suitable measures to guarantee the quality and healthiness of typical "made in Italy" food products. More specifically, the focus will be on the dairy, charcuterie, wine, cereal and horticultural sectors. In particular, the competences provided by the programme in Food Production Management will concern production, quality and health in the "made in Italy" vegetable and animal productions; processing and preservation techniques of vegetable and animal products; food safety and food legislation; effects on environmental sustainability; aspects related to the economic valorisation of agri-food products, with particular reference to those of the Italian tradition, and to the management of enterprises.

ECTS
9
10
10
9
8
8

SECOND YEAR	ECTS
Applied agri-food microbiology	6
Crop protection Entomology (3 Ects), Plant Pathology (6 Ects)	9
Sustainability and Food Law Food Law and Certification (5 Ects), Economic and Environmental Sustainability of Agriculture (5 Ects)	10
Food Technology Sensory Evaluation (4 Ects), Principles of Food Processing Technology (5 Ects)	9
Animal Science Animal Physiology (4 Ects), Applied Animal Science (5 Ects)	9
Applied Viticulture	6
Applied Enology	6
Integrated Vineyard Protection	6

THIRD YEAR	ECTS
Food safety Biological Safety (5 Ects), Chemical Safety (3 Ects)	8
Milk, Meat Production and Technology Milk and Meat Production (6 Ects), Technology of Animal Chain Products (6 Ects)	12
Microbiology of Dairy and Meat Food	6
Vegetable Production and Technology	6
Cereal Grains, Processing and Technology Cereal Grains (6 Ects), Grain Processing and Baking Technology (6 Ects)	12
Free courses(**)	12
Internship	6
Final exam	3

Without prejudice to the student's possibility of choosing any course offered by the University, the Faculty suggests completing the study plan by choosing from the following courses:

(\*\*) Among electives the following are available: Biomass Waste Management (not active in the a.y. 2020/21) (4 Ects)

Fruits and Nuts (4 Ects)
Food Marketing (4 Ects)
Soil Health and Biodiversity (4 Ects)





#### **REGISTRATION**

Registration is enrolment in the first year of university. With it you receive a registration number, which is required when registering for examinations and using the services of the university. The Italian term is *immatricolazione*, hence the term *matricola* to describe first-year students.

#### **DEGREE CLASSES**

Course classes, including degree classes (established by Article 4 of the Decree of the Ministry of Universities and Scientific and Technological Research of 3 November 1999, No. 509 and confirmed by Article 4 of Ministry of Education, University and Research Decree No. 270 of 22 October 2004), are groupings of university degree courses of the same level that share certain educational objectives and award degrees with identical legal value. To date, there are 49 degree classes,

97 master's degree classes and 8 single-cycle master's degree classes. With Ministerial Decree no. 446/2020, the Ministry of Universities and Research established three new professionally-oriented degree classes, which provide for the inclusion of at least 48 ECTS credits for workshop and internship activities, aimed at better placing graduates in the world of work. Individual universities may activate one or more degrees in each class, choose their names and decide on their curricula, subject to certain constraints.

All degrees that belong to a class have the same legal value; this is why public competition notices refer to classes and not to degrees.

## **UNIVERSITY TERMINOLOGY**

What does it mean...

#### **ATHENAEUM**

The term 'athenaeum' (*ateneo* in Italian) derives from the goddess Athena and therefore, by extension, the temple dedicated to her, where rhetoricians and poets recited their poems. Today it is synonymous with university.

#### THREE-YEAR DEGREE

The three-year degree, also known as a first-level degree, is obtained by acquiring 180 ECTS credits over three academic years. It provides the student with an adequate command of general scientific methods and content and guarantees the acquisition of specific professional knowledge. At the end of the course one obtains the title of dottore. A secondary school diploma is required for admission onto three-year degree courses.

#### **ECTS CREDITS**

ECTS credits are a method used in universities to measure the quantity of learning required of a student. Each university examination is associated with a certain number of ECTS credits, which are intended to reflect the amount of effort required; traditionally, 1 ECTS credits is equal to 25 hours of work (either personal study or attendance in workshops or lectures). Each course is assigned a certain number of credits, the same for all students, and a mark (out of 30) that varies according to the level of preparation. ECTS credits may be acquired not only by taking examinations, but also through extra-curricular activities recognised by the Faculty.

#### **FACULTY**

Università Cattolica is divided into Faculties, i.e. organisational structures that comprise one or more degree courses. They have the primary task of organising the academic activities provided for by law, the Statute and the regulations. They cooperate with the departments in organising the research doctorates.

#### SINGLE-CYCLE MASTER'S DEGREE

Certain types of degree last five or six years. Specifically, these are degrees in Architecture and Building

Engineering, Conservation and Restoration of Cultural Heritage, Pharmacy and Industrial Pharmacy, Law, Veterinary Medicine, Primary Education Sciences (5-year duration), Medicine and Surgery and Dentistry and Dental Prosthetics (6-year duration).

In order to be eligible for the single-cycle master's degree, students require a secondary school diploma.

#### DEGREE PROGRAMME

The degree programme is the set of courses, broken down for each year of the course, which the student must attend, taking the relevant examinations, in order to obtain the degree.

#### ACADEMIC YEAR/A.Y.

The academic year begins with the start of classes (end of September-beginning of October) and ends in September of the following year.

#### **LECTURES**

Lectures run from September/October to May/June for YEAR-LONG courses. Courses whose number of hours and duration are equivalent to half of an annual course, are called SEMESTER-LONG courses. The two semesters begin in September/October and/ or February and examinations are held at the end of each semester. SEMESTRALISED courses are courses whose teaching hours are equivalent to an annual course but concentrated in the time frame of a semester course. It still counts as an annual course.

#### EXAM DATE AND EXAM SESSION

An exam date is the date on which an examination can be taken. Each faculty decides independently, in accordance with the University's Academic Regulations, how many exam dates to schedule during the year and in which months. The period during which lectures are suspended and examinations can be taken is called a 'session'. Each academic year has three or four examination sessions (depending on the faculty).

#### **INTERNSHIP**

Internships are educational activities that bring students into contact with the world of work. Some degree courses include a compulsory internship or work experienceperiod within organisations or companies that have an agreement with the university, to be carried out preferably during the final year. Students may also participate in internships and work experience outside the curricular course, both in Italy and abroad.

## DISSERTATION OR FINAL EXAMINATION

This is a written assignment in which the student develops a personal project or research project, usually on a topic related to a subject included in his/her degree programme. It is carried out under the guidance of a lecturer. The overall assessment, which also takes into account the results of individual examinations, is given as a mark out of 110.

#### MASTER'S DEGREE

Master's degrees, also called second-level degrees, last two years (120 ECTS credits) and require students to already have a degree. It provides advanced theoretical and methodological training for performing highly specialist activities in specific fields. At the end of the course, graduates are awarded the title of dottore magistrale.

## FIRST AND SECOND-LEVEL UNIVERSITY MASTER'S DEGREES





## NURTURE YOUR TALENTS

## STUDYING AND LIVING THE UNIVERSITY

Entering the University means facing a world of courses and exams to choose, of professors/lecturers and colleagues to meet and know, of times to learn how to manage. Taking this path means starting to build one's future, following one's passions and interests, in a period of life full of dreams, projects, energy. Università Cattolica is the fertile ground where everyone can cultivate their talents. To this end, we provide tools and services to face with awareness and serenity all the challenges and create opportunities to get to know each other, to deepen knowledge, to grow from a human and cultural point of view.

#### STUDY SUPPORT SERVICES

#### Online services, books, tools and spaces

#### iCatt

The portal that allows you to manage your university career and to have access to all personalised information on services, courses and teaching. For smartphones and tablets there is the iCatt Mobile app, which can be downloaded free of charge from both the Apple Store and Google Play.

Info: icatt.unicatt.it

#### Mailbox @icatt.it

Registered students have at their disposal an institutional mailbox where they will receive notices and secretarial communications, information on services and extracurricular opportunities offered by the University.

Info: www.unicatt.it/cloudmail-icatt

#### Blackboard

It is the online platform for interaction and collaboration between students and professors/lecturers, on which tools and aids are available for learning and for a more in-depth study of individual course programmes.

Info: ilab.unicatt.it/blackboard

#### Books

But not only paper. The Library System provides e-books, e-journal and online databases on all disciplines and can also be consulted from home. It is possible to discover this great scientific and educational heritage by consulting the online catalogue **sbda.unicatt.it**. Through the personal Mylibrary page, it is possible to consult, book and check, from a computer, tablet or smartphone, the books of one of the best Italian university libraries, with a heritage of over two million volumes that cover the history of writing, from Sumerian tables to digital resources. The books used in the courses can be purchased at the "Vita e Pensiero" bookshop, as well as at EDUCatt, which sells, at reduced prices, the texts prepared by professors/lecturers for their courses and

also runs a service of lending and selling used books in collaboration with the University library.

The "Digital HUB" service, which opens up a wide range of possibilities for students on multimedia content, e-books used in courses, mp3 music files and online newspapers, is also active and available online.

nfo: sbda.unicatt.it; vitaepensiero.it; libri.educatt.online

#### Our Campuses

In **Piacenza**, alongside the buildings for teaching and research, with classrooms and laboratories, there are conference centres, colleges and catering services, libraries, study rooms, multimedia rooms and a well-equipped multi-sports centre.

Cremona is the location of important research and higher education centres, where teaching spaces are integrated with laboratories and research facilities.

#### Tutoring

The group tutor facilitates the integration of first-year students into the university world by supporting them in solving administrative problems, organizing their study plan, planning examination sessions, and developing an effective study method.

Each student can contact and meet individually with his or her tutor and participate in the various initiatives organized to address issues and problems of general interest.

Info: www.unicatt.it/tutorato-pc

#### **EDUCATT**

EDUCatt, the Right to Study Foundation of Università Cattolica, is the Foundation that supports the University in the management of certain services that are fundamental to improving the student's quality of life. These include, in particular, aid for economic needs (scholarships and other facilities), listening and information, but also catering, housing solutions, health care, sports and travel. *Info: educatt.it* 

#### KNOW THE WORLD

#### The study of foreign languages and experiences abroad

#### SeLdA

The university's language service promotes foreign language learning for all students, enabling them to acquire or test the language skills required for their training. Active on all campuses, it organises curricular courses and language enhancement activities, enabling students to continue the process of studying languages independently. Through an agreement with the British Council, SeLdA organises IELTS Academic exam sessions for students of Università Cattolica.

Info: selda.unicatt.it/piacenza

#### Ucsc international

It offers a wide range of programmes to study or work abroad: from studying in prestigious international universities to the possibility of doing research experiences in other countries for your dissertation; from intensive language courses in the best European and non-European campuses to internships and work experience in the world, with the possibility of obtaining contributions and competing for scholarships.

Info: ucscinternational.unicatt.it

#### TEST YOURSELF

#### Work: opportunities and advice and guidance

#### • Internship and placement

The Internship and Placement Service organises classroom meetings with companies, provides consultancy for the compilation of the curriculum vitae, offers simulations of selection tests, organises recruiting days, makes internships and work experience proposals available online on a dedicated portal. These opportunities, both in Italy and abroad, are open to for students and recent graduates.

Info: sep.unicatt.it

#### Work at the university

During the course of study, it is possible to work at the university, to start a paid experience by collaborating with the various structures of the University (libraries, secretariats, offices) for a time equal to 200 hours per year. The call to participate in the selection is published between October and November. In addition, there is the possibility to apply for a fixed-term job (Student Workproject), tailored to students, in a way that does not compromise the time to devote to studying and attending courses

Info: www.unicatt.it/200ore; www.educatt.it/SWE

#### **OFF-SITE?**

#### Live your campus

#### • Colleges on Campus

A modern and dynamic reality on the model of Anglo-Saxon university campuses. Not only a residence in an optimal position to attend lessons: indeed, living on the College is an educational experience that, through the meeting with students from various faculties, fully integrates students into the university community and offers an educational proposal that integrates the academic programme, as in the case of English, German and Chinese language courses.

Info: collegiunicattolica.it

#### • College Announcement of Selection

To gain access to Colleges on Campus and residences in the city, every year from May to September and in various locations, the College camp competition is held: it tests students through a written exam and an interview. For the students wishing to get a place, during the days of the competition, they have the unique opportunity to get to know the places and services connected to the university and to test themselves in a new experience, which could be the beginning of a rich and stimulating path of study and life.

Info: collegiunicattolica.it

#### • Residences in the city

The facilities, located throughout the territory and well connected to the campuses, offer accommodation to make the most of the university period. In some cases, supplementary activities for multi-disciplinary training are also promoted.

Info: educatt.it/collegi

#### Accommodation on demand

It is the housing proposal that integrates the reality of the Colleges and Residences, with two different solutions: accommodation in guest quarters (Guesthouses) and Camplusoffer. Two ways of conceiving residency to meet the demands of an increasingly varied audience, in independent rooms equipped with every comfort.

Info: www.educatt.it/AoD

#### • Housing Network

In addition to traditional housing solutions EDUCatt is committed to finding alternative channels to make it easier for Università Cattolica students to find accommodation.

Housing Networkoffers user-friendly solutions through partnership with digital platforms.

Info: www.educatt.it\HousingNetwork

#### RESPECT YOURSELF

#### **Nutrition and health**

#### • Catering and canteens

The menus are calibrated to the average needs of students, with particular attention to the quality and origin of the raw materials. There are also many conventions stipulated by Università Cattolica with refreshment points within the city.

Info: ristorazione.educatt.online

#### · Health care and psychological counselling

EDUCatt offers students at Università Cattolica a health care service with general practitioners and specialists. The Psychological Counselling service is also active: it gives students the opportunity to discuss with a professional the personal, relational and study difficulties they encounter during their university experience.

Info: educatt.it/centrosanitario

#### VALUE YOUR FREE TIME

#### News, information, culture, music and sport

Nobel Prize winners, representatives of Italian and foreign institutions, leading figures in economics, politics and the world culture: witnesses from whom lessons in science and life can be learned with profit.

University is much more than specialist preparation.

Info: cattolicanews.it

#### Cultural activities

Thanks to fruitful collaborations with various cultural institutions, it is possible to take advantage of benefits for theatre performances, guided tours to the most important exhibitions and concerts. It is also possible to take part in debates and meetings with representatives of the cultural and sports world.

Info: piacenza.unicatt.it

#### Sport

The Piacenza campus has a multi-sports centre of 8,000 square metres. Students participate in football, volleyball, basketball, etc. tournaments. Thanks to the collaboration with the CSI (Italian Sports Centre) it is possible to take part into a range of indoor and outdoor activities for all needs.

Info: www.educatt.it/sport

#### Conventions

Students at Università Cattolica of Piacenza-Cremona can also find discounts on commercial purchases or on the use of sports or cultural services in a special list of agreements.

Info: piacenza.unicatt.it/opportunita-convenzioni-attive

## SERVICES FOR THE INTEGRATION OF STUDENTS WITH DISABILITIES AND SPECIFIC LEARNING DISORDERS

In compliance with the provisions of Law no. 17 of 28 January 1999, which stipulates "individualised treatment for passing university examinations after agreement with the professor/lecturer of the subject [...] the use of specific suitable technical means and the possibility of carrying out equivalent tests on the proposal of the specialised tutoring service' and to the Law of 8 October 2010 no. 170 for which 'students with Specific Learning Disorders are guaranteed, during their education and training at school and university, adequate forms of verification and assessment, also with regard to State examinations and university entrance examinations as well as university examinations', Università Cattolica del Sacro Cuore has established the Services for the integration of students with disabilities and with Specific Learning Disorders which, through the technical-administrative and teaching support of specialised pedagogical staff, aim to accompany students in the university experience by supporting them from the early stages of orientation to graduation and the first steps into the world of work.

Info: studenticattolica.unicatt.it/home-services-and-campus-life#section-disability-and-dsa

#### SPIRITUAL SUPPORT

The Pastoral Centre is a welcoming reference point for those who are looking for a moment of listening or open confrontation on their personal growth, for those who want to help their neighbour with activities of volunteering or for those who want to widen their theological knowledge. It promotes numerous cultural activities related to music, theatre, the relationship between art and spirituality and actively collaborates with the various Catholic student associations.

Info: centropastorale.unicatt.it

#### STAY CONNECTED

#### **News and Social network**

Being informed and updated on the life of Università Cattolica is easy: the channels <code>Facebook</code> (facebook.com/unicatt), <code>Instagram</code> (instagram.com/unicatt), <code>LinkedIn</code> (www.linkedin.com/school/universita-cattolica-del-sa-cro-cuore), the videos and live broadcasts on <code>Youtube</code> (youtube.com/younicatt) tell all the news and initiatives of the University. The world of Cattolica's five campuses is also described in an online magazine, <code>Cattolicanews</code>, with a weekly newsletter and related social media <code>Facebook</code>, <code>Instagram</code>, <code>Twitter</code> pages: real virtual pages for in-depth analysis and information. The media centre "Secondo Tempo", a content-factory within the University that produces, collects and publishes podcasts, videos, articles and web reports, helps to enrich the website and the world of news. <code>Finally</code>, <code>YouCatt</code>, the webtv of the Brescia campus, which was created in collaboration with the degree programme in <code>Science</code> and and <code>Technologies</code> of the Arts and Performing Arts - Stars.

Info: secondotempo.cattolicanews.it; cattolicanews.it

## HOW MUCH DOES IT COST TO STUDY AT UNIVERSITÀ CATTOLICA

The tuition fee is determined on the basis of family income. Every year, approximately 3,000 students, based on merit and financial conditions, are exempt from paying university fees, while 4,000 gain access to additional financial benefits. Students with a certified disability equal to or greater than 66% and students with a recognised disability pursuant to art. 3, subsection 1 or subsection 2 of Law no. 104 of 5 February 1992 are entitled to total exemption from enrolment fees and university contributions, paying €100 upon registration in the first year and then upon enrolment onto each subsequent academic year. In order to obtain the exemption, the aforementioned students must present original, valid documentation to the Services for the Integration of Students with Disabilities and SLD of the relevant campus. There are also concessionary rates for off-site students resident in the colleges of the Università Cattolica.

#### SCHOLARSHIPS AND FINANCIAL AID

#### • Economic benefits

Scholarships, reimbursement of tuition fees, monetary aids, admission and re-admission to university colleges at reduced rates, access to the catering service at lower prices These are the formulas proposed to reduce the costs of study according to income and merit requirements. The online platform MyEDUCatt is a direct thread that allows you to submit your application and check the processing status of the file at any time.

Info: educatt.it/agevolazioni

#### Other benefits

The benefits are available to students committed to study and work, students enrolled and belonging to the same household at the same time, students with a certified disability or in whose household there are family members with CERTIFIED disability. In addition, special benefits are provided for those who, although already in the minimum income bracket, are in particularly difficult and serious economic conditions and are unable to obtain the scholarship. There are also various competitions organised by private bodies, foundations, associations or organisations. The list is updated and available online. *Info: agevolazioni.unicatt.it* 

#### SCHOLARSHIPS FOR DESERVING STUDENTS

Promoted by Università Cattolica and the Giuseppe Toniolo Institute, with the collaboration of the EDUCatt Foundation, establish every year 100 Scholarships + 100 Study Awards for merit only. These scholarships and study awards are intended for all students and future students of Università Cattolica, divided into the following categories: 60 START scholarships: a competition open to high-school diploma holders or students about to finish high school who intend to enrol in Università Cattolica 40 RUN scholarships: competition reserved for students about to graduate or graduate students who intend to enrol at Università Cattolica 100 SMART Awards: Awarding to students enrolled in the years following the first at Università Cattolica.



## ADVICE AND GUIDANCE AT UNIVERSITÀ CATTOLICA

Throughout the year, Università Cattolica offers numerous opportunities - both virtual and in-person - for support on your orientation journey and help you think clearly about your choice of future university studies.

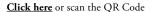
Take part in **appointments dedicated to presenting the University's courses and services**, during which lecturers go into detail about the structure and content of the courses on the degree programmes, while students are on hand to tell you about their experiences.

You can discover the university environment at first hand by taking part in **psycho-aptitude orientation** with group workshops, **faculty discovery workshops** and real **university lectures**.

During the summer period, Università Cattolica offers **technical support for enrolment** through a dedicated information desk, as well as **meetings** on the options available, **workshops**, **seminars** and **info sessions** with testimonials from professionals and young graduates.

#### **UNICATT "ORIENTAKIT"**

We have created a page where you can find all the useful information material for your orientation: visit the Orientakir!





#### **KEEP IN TOUCH**

Subscribe to our newsletter: you will be kept up-to-date on important initiatives, appointments and deadlines.

Click here or scan the QR Code



#### **ORIENTATION INTERVIEWS**

For an individual advice and guidance interview in which you can learn more about degree courses, enrolment procedures and the services offered to students, we invite you to make an appointment - in person or virtually - with the staff of the Advice and Guidance Office at each campus.

#### Book your orientation interview

Click here or scan the QR Code

Milan - Largo A. Gemelli, 1

Brescia - Via Trieste, 17 and Via della Garzetta, 48

Piacenza - Via Emilia Parmense, 84

**Cremona** - Via Bissolati, 74 **Rome** - Largo F. Vito, 1

For further information:

**800** 954 459 if you are an Italian student +39 02 7234 7234 if calling from abroad Monday to Friday from 8 a.m. to 7 p.m, Saturdays from 9 a.m. to 1 p.m.

#### WEB & SOCIAL MEDIA

Visit us at www.unicatt.it and follow the official Cattolica social media profiles.















## YOUR

## TOMORROW

STARTS HERE



#### Piacenza

Via Emilia Parmense, 84

#### Cremona

Via Bissolati, 74

www.unicatt.it/scienze-agrarie