



**UNIVERSITA' DEGLI STUDI DI MILANO**  
**PROGRAMME DESCRIPTION - ACADEMIC YEAR 2024/25**  
**BACHELOR**

**Production and protection of plants and green areas (Classe L-25)**  
**Enrolled from 2019/20 academic year**

### HEADING

<b>Degree classification - Denomination and code:</b>	L-25 Agriculture and Forestry
<b>Degree title:</b>	Dottore
<b>Length of course:</b>	3 years
<b>Total number of credits required to complete programme:</b>	180
<b>Years of course currently available:</b>	1st , 2nd , 3rd
<b>Access procedures:</b>	Open, subject to completion of self-assessment test prior to enrolment
<b>Course code:</b>	G27

### PERSONS/ROLES

#### Head of Study Programme

Prof. Fabio Quaglino

#### Tutors - Faculty

Tutor per i piani di studio:

lettera iniziale cognome studenti A-B-C: Prof.ssa Tambone Fulvia

lettera iniziale cognome studenti D-E-F: Prof. Saracchi Marco

lettera iniziale cognome studenti G-H-I-L: Prof. Spada Alberto

lettera iniziale cognome studenti M-N: Prof. Beghi Roberto

lettera iniziale cognome studenti O-P-Q: Prof.ssa Spinardi Anna

lettera iniziale cognome studenti R-S: Prof.ssa Fumagalli Natalia

lettera iniziale cognome studenti T-U-V-Z: Prof.ssa Lupi Daniela

#### Degree Course website

<https://ppsv.cdl.unimi.it/>

#### Course management for the Faculty of Agricultural and Food Sciences (Science and Technology area)

via Celoria 2 - Milano Città Studi Phone 0250316511 Orario di apertura al pubblico: lunedì dalle 10 alle 12 e dalle 14 alle 16

Contatto: <https://informastudenti.unimi.it/saw/ess?AUTH=SAML>

#### Degree programme head

Phone 0250316789 Email: [didattica.disaa@unimi.it](mailto:didattica.disaa@unimi.it)

#### Student registrar

via Celoria 18 - Milano Città Studi Phone 0250325032 <https://www.unimi.it/it/node/360> <https://www.unimi.it/it/node/359>

### CHARACTERISTICS OF DEGREE PROGRAMME

#### General and specific learning objectives

Graduates in Management of Cultivated Plants and Landscaping will acquire knowledge regarding: the agricultural environment, the herbaceous and tree cropping systems, shrub crops, their physiology and ecology, their productive and qualitative characteristics, their relationship with the climatic, pedological and biotic component, ordinary and innovative cultivation techniques. The agronomic tools necessary for the management of agricultural systems and green systems; - the biology of pathogens, such as fungi, bacteria, viruses, viroids, phytoplasmas, and animal parasites, such as insects, mites, nematodes, and rodents. The relationships that are established among them, with plants and organisms and microorganisms that share the same ecological niche, enhancing the interactions among pathogens, insects, and useful organisms, also for the purposes of biological defense, weeds, the principles of protection and the most effective and respectful means of human health and the environment.

#### Expected learning outcomes

1. Having acquired basic and professional skills of a biological, chemical, agronomic, engineering, technological, and economic nature, and having developed the skills of understanding agricultural systems and applying the knowledge acquired, they will be able to: operate professionally in all sectors of the agricultural sector, with particular reference to plant

production and conservation, the technical and economic management of companies, the management of green areas and the territory; management of the rural area and the environment; having acquired the ability to apply their knowledge and understanding skills through a professional approach to the world of work; communicate and manage technical and scientific information; working in a group, operating with well-defined levels of autonomy, communicating information, ideas, problems, and solutions to specialist and non-specialist interlocutors.

2. The graduate in Production and protection of plants and green systems will also have the necessary training bases for access to masters and master's degree courses in the relevant cultural area.

3. The course of study includes an internship to be carried out at a reality outside the Faculty or at a Faculty structure. The training activity is the topic of the final exam.

### **Professional profile and employment opportunities**

The professional profile of the graduate in Management of Cultivated Plants and Landscaping is a professional with a knowledge of plant organisms, with basic physiological, biochemical, genetic, agronomic knowledge of plants of food, non-food and ornamental interest. Graduate has skills related to cultivation systems, ranging from those relating to soil and climate in which they are inserted, to general and specific cultivation techniques of many crops, including ornamental ones, including aspects of their defense against biotic and abiotic adversities. He has managerial and territorial and environmental management skills and, in its conservation, and restoration through the management of the agro-ecosystem; of the conservation and transformation processes of non-food plant food products.

1. The employment opportunities of the graduate in Production and protection of plants and green systems are foreseen in the sectors of agricultural and livestock production, technical assistance, public and private administration, research and teaching. In fact, his skills include those of level 3 (ISTAT classification): technical professions that require operational knowledge and experience in the scientific field.

2. Their tasks are to apply existing and consolidated knowledge in the following sectors, following defined and predetermined protocols: agricultural, horticultural, and floriculture production companies, in the open field, in the nursery or greenhouse, in the implementation of the best itineraries technicians to optimize profitability, enhancing the environment and process sustainability; distribution, marketing and quality control companies for vegetable products; management and control of the manufacturing processes within the flower and nursery farms; of design, maintenance and management of green areas; companies and diagnostic and consultancy laboratories in the field of plant protection, foodstuffs and environments, respecting consumer health and environmental protection. company producing and selling technical, chemical and biological means for the sustainable protection of plants, foodstuffs and environments; public and public law bodies (Municipalities, Provinces, Regions, Reclamation Consortia etc.); freelance, independently or in collaboration with professional studies of Agronomists, Architects, Engineers, etc.

### **Initial knowledge required**

#### **Admission requirements**

Applicants to the degree programme must hold a secondary-school diploma, or other equivalent qualification, and a baseline of knowledge in scientific subjects (mathematics, chemistry, physics and biology).

#### **Admission assessment**

This is an open-admission degree programme. An additional 5 places for non-EU students residing abroad are available for enrolment in Year I.

Access to the programme is regulated by a compulsory test to ascertain that the candidate meets admission requirements, i.e. knowledge of key science subjects as provided by upper secondary school, and an understanding of elementary logic.

The test required for admission into the degree programme is TOLC-AV, an online test provided by the Consortium of Inter-University Integrated Access Systems (CISIA - <https://www.cisiaonline.it>).

For test topics and details, please review the page <https://www.cisiaonline.it/en/area-tematica-tolc-agraria-veterinaria/struttura-della-prova-e-syllabus/>

You may sit for the TOLC-AV test at the University of Milan or any other member university of CISIA.

The calendar with available venues and dates is posted to the page <https://tolc.cisiaonline.it/calendario.php?l=gb>.

Registration procedures and deadlines are set out in the call for applications posted to the page <https://ppsv.cdl.unimi.it/isciversi>

#### **Admission of transfer or graduate students**

Transfer students from a degree programme of the University of Milan, or another university, and graduate students will be waived from the test requirement only if admitted to years subsequent to Year I.

To this end, they will have to submit a specific request for prior assessment of their academic records using the online service as shown in the call for applications.

These candidates must provide a full transcript of records (listing exams, subject areas, credits, grades) and attach the course syllabi. For more details and dates, please refer to the call for applications.

#### **Additional learning requirements (OFA) and remedial activities**

Students who are admitted with a score lower than or equal to 4 in the Mathematics section of the TOLC-AV test will have

to fulfil additional learning requirements (OFA). Remedial activities will be organized for students with OFA (in the period October-December), both as online exercises on an e-learning platform and as discussion sessions with a tutor. After participating in remedial activities, new students will have to take a final assessment test. Mathematics OFA are prerequisites for all second- and third-year exams. For students who have not passed the OFA final test during the first year, passing the Mathematics exam is a prerequisite for all second- and third-year exams. Learn more at <https://ppsv.cdl.unimi.it/it/studiare/le-matricole>

### **Compulsory attendance**

Course attendance is strongly recommended.

### **Internship criteria**

We strongly recommend that students start their internship no later than the second semester of Year II, provided they have passed all first-year exams.

### **Degree programme final exams**

The programme culminates in the final exam, where students will be required to present and discuss a written paper on their internship. Thesis work must be in line with the number of credits (CFU) it awards, i.e. 6. You can find internship and thesis guidelines on the degree programme website: <https://ppsv.cdl.unimi.it/it/studiare/laurearsi>. The examining board will take into account the student's entire course of study and intellectual maturity. The final paper may be written in Italian or in English. The final exam will count towards the degree mark, which will be on a scale of 110.

### **Notes**

In order to obtain their degree, students must be proficient in English at a B1 level under the Common European Framework of Reference for Languages (CEFR). This proficiency level may be certified as follows:

- By submitting a language certificate attesting B1 or higher level in English and issued no more than three years before the date of submission. You will find the list of language certificates recognized by the University at: <https://www.unimi.it/en/node/39322>). The certificate must be uploaded during the enrolment procedure, or subsequently to the portal <http://studente.unimi.it/uploadCertificazioniLingue>;
- By taking a placement test offered by the University Language Centre (SLAM) between October and December of the first year. Students who fail the test will be required to take a SLAM course.

The placement test is mandatory for all those who do not hold a valid certificate attesting to B1 or higher level.

Those who have not taken the placement test by the end of December or fail the end-of-course exam six times must obtain the necessary certification privately before graduating.

## **EXPERIENCE OF STUDY ABROAD AS PART OF THE TRAINING PROGRAM**

The University of Milan supports international mobility by providing its students with the opportunity to spend study and internship periods abroad. It is a unique chance to enrich your educational path in a new exciting environment.

The agreements entered into by the University with over 300 universities from the 27 EU member countries under the European Erasmus+ programme allow regularly enrolled students to carry out part of their studies at one of the partner universities or to undertake internships at companies, training and research centres and other organizations. Similar international mobility opportunities are provided outside Europe, through agreements with a number of prestigious institutions.

### **Study and internships abroad**

The Course of study in Management of Cultivated Plants and Landscaping gives many opportunities for stages abroad mainly through the Erasmus+ programme. About 30 foreign Universities of the EU are involved in this students exchange. Globally every year about 5 students of this course of study make a stage in these universities. The areas of study which can be followed by the students abroad are almost all those included in this course of study. In general, students who make a stage abroad attend local courses or participate in research for the preparation of their thesis. The examination scores and the related UFC obtained in the partner universities are almost entirely acknowledged by our university for the curriculum studies. Other possibilities exist in terms of cultural exchange with non EU universities (in China, Japan, Latin America) not involved in the Erasmus programme.

### **How to participate in Erasmus mobility programs**

The students of the University of Milan can participate in mobility programmes, through a public selection procedure.

Ad hoc commissions will evaluate:

Academic career

the candidate's proposed study programme abroad

his/her foreign language proficiency

the reasons behind his/her application

Call for applications and informative meetings

The public selection for Erasmus+ mobility for study generally begins around February each year with the publication of a call for applications specifying destinations and requirements. Regarding the Erasmus+ Mobility for Traineeship, the University of Milan usually publishes two calls a year enabling students to choose a destination defined by an inter-institutional agreement or to find a traineeship position on their own.

The University organizes informative meetings to illustrate mobility opportunities and rules for participation.

#### Erasmus+ scholarship

The European Union grants the winners of the Erasmus+ programme selection a scholarship to contribute to their mobility costs, which may be supplemented by the University funding for disadvantaged students.

#### Language courses

Students who pass the selections for mobility programmes can benefit from intensive foreign language courses offered each year by the University Language Centre (SLAM).

<https://www.unimi.it/en/node/8/>

Learn more at <https://www.unimi.it/en/node/274/>

For assistance, please contact:

International Mobility Office

Via Santa Sofia 9 (second floor)

Tel. 02 503 13501-12589-13495-13502

Contacts: InformaStudenti; [mobility.out@unimi.it](mailto:mobility.out@unimi.it)

Student Desk booking through InformaStudenti

<b>1st COURSE YEAR Core/compulsory courses/activities common</b>		
<b>Learning activity</b>	<b>Ects</b>	<b>Sector</b>
Animal Biology	5	BIO/05
English assessment B1 (3 ECTS)	3	NN
Essentials of economics	6	AGR/01
General and inorganic chemistry	6	CHIM/03
General and systematic botany	10	(3) BIO/02, (7) BIO/01
Mathematics	6	MAT/02
Organic Chemistry	6	CHIM/06
Physics	6	FIS/07
Total compulsory credits		48
<b>2nd COURSE YEAR Core/compulsory courses/activities common</b>		
<b>Learning activity</b>	<b>Ects</b>	<b>Sector</b>
Agricultural microbiology	6	AGR/16
Computer technology and statistics knowledge	6	NN
Field crops	8	AGR/02
Fruit Tree Production	8	AGR/03
General agronomy	14	AGR/02
Plant genetics	8	AGR/07
Plant physiology and biochemistry	8	AGR/13
Soil chemistry	6	AGR/13
Stage	10	NN
Total compulsory credits		74
<b>3rd COURSE YEAR Core/compulsory courses/activities common</b>		
<b>Learning activity</b>	<b>Ects</b>	<b>Sector</b>
Agricultural Entomology	8	AGR/11
Agricultural machines and mechanization	6	AGR/09
Applied ecology of arthropods and fungi	6	(3) AGR/11, (3) AGR/12
Elements of hydraulics and irrigation	6	AGR/08
Plant Pathology	8	AGR/12
Total compulsory credits		34
<b>Further elective courses</b>		
<p>The academic plan includes 18 credits for elective activities. To this end, students can select courses organised for this and other degree programmes of this Faculty and the University in general, or opt for other educational activities that can be measured in credits. These can be seminars, conferences, refresher courses and other activities organised by this University or another entity, provided that they are congruent with the study programme. Normally, a maximum of 4 credits can be awarded for this kind of activities, which must be approved beforehand by the Academic Board. For information on how to obtain credits for such activities, students have to contact their tutor. Pursuant to article 5, paragraph 7, of Ministerial Decree 270/2004, students may be awarded up to 12 credits for professional knowledge and skills certified and/or acquired during post-secondary level training activities and approved by the Academic Board of the degree programme. See also the paragraph Structure of the course - Presentation of the study plan. For students pursuing a Bachelor's degree in Production and Protection of Plants and Green Areas, the Academic Board notably recommends the elective courses specified in the list and table below.</p>		

<b>“Protection of urban forestry and ornamental crops” bundle</b>		
- Ornamental arboriculture and urban forestry		
- Plant pathology applied to ornamental plants and turfgrass		
- Urban entomology and parasitology		
<b>“Design and management of green areas” bundle</b>		
- Survey, map drawing and materials for green areas		
- Ornamental arboriculture and urban forestry		
- Floriculture and turfgrasses		
<b>Moreover, a 10-credit laboratory (internship) is organised by professors in the frame of both bundles.</b>		
Beekeeping	4	AGR/11
Floriculture and Turfgrasses	6	AGR/04
History of Agriculture	4	AGR/01
Laboratory of diagnostics in plant pathology	6	AGR/12
Ornamental Arboriculture and Urban Forestry	6	AGR/03
Plant pathology applied to ornamental plants and turfgrass	6	AGR/12
Postharvest physiology and quality of horticultural commodities	6	AGR/03
Survey, map drawing and materials for green areas	6	AGR/10
Urban entomology and parasitology	6	AGR/11
Vegetables production	6	AGR/04
Viticulture	6	AGR/03
<b><i>End of course requirements</i></b>		
Final exam	6	NN
Total compulsory credits		6

## ***COURSE PROGRESSION REQUIREMENTS***

There are no prerequisites for registering for exams. However, we strongly recommend that you pass first-year exams before enrolling in Year II and sitting further exams. The internship can only be started after passing all the exams required in Year I.