



**UNIVERSITA' DEGLI STUDI DI MILANO**  
**PROGRAMME DESCRIPTION - ACADEMIC YEAR 2024/25**  
**BACHELOR**  
**Viticulture and Enology (Classe L-25)**  
**Enrolled from 2019/20 academic year**

### HEADING

<b>Degree classification - Denomination and code:</b>	L-25 Agriculture and forestry industry
<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>	Cap on student, student selection based on entrance test
<b>Course code:</b>	G25

### PERSONS/ROLES

#### Head of Study Programme

Prof. Antonio Giovanni Tirelli

#### Tutors - Faculty

Tutor per l'orientamento:

Prof. Ivo Ercole Rigamonti

Tutor per la mobilità internazionale e l'Erasmus:

Prof.ssa Daniela Fracassetti

Tutor per ammissioni lauree magistrali:

Prof. Piero Attilio Bianco

Prof. Osvaldo Failla

Prof.ssa Daniela Fracassetti

Prof. Domenico Pessina

Prof. Antonio Giovanni Tirelli

Prof.ssa Ileana Vigentini

Tutor per stage e tirocini:

Prof. Lucio Brancadoro

Prof. Osvaldo Failla

Prof. Roberto Carmine Foschino

Prof.ssa Daniela Fracassetti

Prof.ssa Monica Laureati

Prof. Antonio Giovanni Tirelli

Prof.ssa Ileana Vigentini

Tutor per i piani di studio:

lettera iniziale cognome studenti A-B: Prof.ssa Stefania Mazzini

lettera iniziale cognome studenti C-F: Prof. Ivo Ercole Rigamonti

lettera iniziale cognome studenti G-L: Prof.ssa Ileana Vigentini

lettera iniziale cognome studenti M-N: Prof. Domenico Pessina

lettera iniziale cognome studenti O-R: Prof. Stefano Corsi

lettera iniziale cognome studenti S-Z: Prof. Osvaldo Failla

#### Degree Course website

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

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

via Celoria 2 - Milano Città Studi Phone 0250316511-0250316512 Lunedì, mercoledì e venerdì dalle 10.30 alle 12.30; martedì e giovedì dalle 14 alle 16. <https://informastudenti.unimi.it/saw/ess?AUTH=SAML>

#### Degree programme head

## 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

The Degree course in Viticulture and Enology assures an interdisciplinary training on the biological and technological principles related to the cultivation of vines and the production of wine. The course provides professional competence to technicians devoted to work in the viticulture, enology and wineries management sectors. The curriculum is based on a solid scientific training (including the fundamentals of biological, chemical and physical sciences) and on specific courses, aimed at providing agro-technological and managerial skills. The courses program is aimed at deepening the scientific principles of the vine cultivation and wine production, on the basis of the biological, physical and chemical fundamentals necessary for their full understanding. With this in mind, a particular style of vine cultivation or winemaking, as well as a specific method of managing the vineyard and cellar are not emphasized. On the contrary, the achievement of a unifying methodological and scientific competence is strongly favoured, in order to acquire autonomous vision and vocation. Thanks to a complementary teaching offer, each student is however encouraged to deepen the preferable application aspect in viticulture and/or wine production and/or in the management of the vine-winery company.

### Expected learning outcomes

The skills acquired during the course must allow the graduate to work (also with coordination and management tasks):

- at the "vineyard" level: improvement of the cultivar choice, of the cultivation techniques, of the vine protection and the grape harvest;
- at the "cellar" level : technical management of the wine chain and qualitative problems in the production of wine and other alcoholic drinks, liqueurs and spirits;
- at the "laboratory" level : for the ampelographic and technological characterization of the grapes, for the selection of yeasts and for the chemical-physical and sensorial characterization of enological products;
- at the "company" level: in the economic management and the marketing sector.

Specialized skills in the use of the information technology media, statistical tools and fluent knowledge of a foreign language are essential requirements to complete the scientific training, together with teachings aimed at providing a cultural vision and an economic, historical and geographical framework of wine production and winemaking.

### Professional profile and employment opportunities

The winemaker is responsible for the management, administration and consultancy activities in vine companies for the grapes production and transformation, as well as the refinement, conservation, bottling and marketing of derived products. His/her activity also concerns the variety choice, the plant and the plant protection aspects of the vineyards. He/she can operate in managerial functions in organizations, associations and vine-wine consortia. He/she is qualified to carry out and certify microbiological, enochemical and sensorial analyzes on wines. He/she can collaborate in the design of vineyards and wineries, as well as in the choice of related technologies. Lastly, he/she is responsible for the distribution and marketing of grapevine products, including communication, marketing and image aspects. The aim of the course is to prepare technicians with specific skills in the viticulture and enology sector, qualified to the profession of winemaker in Italy and in Europe, in accordance with law no. 129 of 10th April 1991 and subsequent modifications. Further professional opportunities may concern the beverage industry (those fermented in particular), food distribution, as well as publishing sector and technical-scientific information on wine.

### Initial knowledge required

Admission requirements

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

Assessment of the personal qualification

Admission into this Bachelor's degree programme is capped in order to meet high-quality teaching standards relative to the available resources. There are 80 places available for enrolment in the first year, plus 5 places for non-EU students residing abroad and 4 places for Progetto Marco Polo students.

Access to the programme is regulated by a compulsory, selective test to ascertain that the candidate meets admission requirements, i.e. knowledge of key science subjects as provided by 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://viticolturaenologia.cdl.unimi.it/it/iscriversi>

Only students high enough in the merit ranking will be eligible for enrolment.

#### 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.

Students admitted to the first year will be required to take the test and register for the call.

#### 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://viticolturaenologia.cdl.unimi.it/it/studiare/le-matricole>

#### Compulsory attendance

Course attendance is strongly recommended.

#### Internship criteria

Students are required to complete a practical internship awarding 10 CFU, after earning at least 42 CFU for exams. The internship must be carried out during the harvest period at a winery starting from the end of the second-year courses. The practical internship will provide the student with professional experience in wine production. After completing the internship, the student will write a report that may be the subject of their degree paper.

#### Degree programme final exams

Upcoming graduates must pass a final exam, which consists in the presentation and discussion of a paper before a degree board. The final paper may concern either an experimental or a bibliographic activity, including the internship report.

To be admitted to the final exam, the student must have earned 177 CFU (i.e. 180 CFU minus the number of credits awarded by the final exam), including the credits required for the foreign Language and the exam of "Computer skills, statistics and data management in the winery". Regulations for the awarding of degree marks is posted on the page <https://viticolturaenologia.cdl.unimi.it/it/studiare/laurearsi>

#### 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 opportunity of studying in the framework of the Erasmus + Program, the rules for participation and the criteria for the

selection of students are indicated in a specific call for applications for the Food Science Area. Mobility is provided towards 30 partner universities widely distributed in Europe, selected on the base of their teaching affinity with the course of study (degree program) and notoriety in the specific area. The areas of study that can be developed abroad include physiology, genetics and viticulture techniques, chemistry and wine microbiology, wine-making technologies, sensory analysis and marketing of the wine commerce. The learning agreement is outlined in collaboration with the person in charge for the Erasmus of the degree program, as regards both the choice of courses and the organization of the internship at the partner university. Students must obtain the formal approval of the examinations that they intend to carry out at the host university from professors who hold equivalent or similar teachings at the University of Milan before completing the learning agreement. As regards experimental activities abroad, which can constitute part or the entire program of the internship, a letter of agreement from a professor of the partner university is required, along with the formal approval on the objectives, on the program and on the term of the internship by a professor of the degree program, who will also act as supervisor. At the end of the study period abroad, students must hand in the transcript of records released by the host university and they obtain, by the approbation of the Teaching Board, credits and votes recognition on the base of a default conversion scale. The degree course offers integrated study programmes that award joint/multiple degrees (<https://www.unimi.it/en/international/study-abroad/double-degree>).

### 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>
Agronomy	6	AGR/02
Elements of economics	6	AGR/01
English assessment B1 (3 ECTS)	3	ND
General and inorganic chemistry	6	CHIM/03
Mathematics	6	MAT/02
Organic chemistry	6	CHIM/06
Physics	6	FIS/07
Plant biology	8	(4) BIO/01, (4) BIO/03
Total compulsory credits		47
<b>2nd COURSE YEAR Core/compulsory courses/activities common</b>		
<b>Learning activity</b>	<b>Ects</b>	<b>Sector</b>
Agricultural chemistry	10	AGR/13
Biology and genetics of grapevines	8	AGR/03
Computer skills, statistics and data management in the winery	9	NA

Enochemical analysis	6	AGR/15
Enological and fermentations chemistry	6	CHIM/11
Enology 1	10	AGR/15
Microbiology	6	AGR/16
Stage	10	NA
Total compulsory credits		65
<b>3rd COURSE YEAR Core/compulsory courses/activities common</b>		
<b>Learning activity</b>	<b>Ects</b>	<b>Sector</b>
Enological microbiology	6	AGR/16
Enology 2	11	AGR/15
Management of vinicultural firm and marketing elements	8	AGR/01
Vineyard protection	11	(5) AGR/11, (6) AGR/12
Viticultural and enological engineering	11	AGR/09
Viticulture: cultivation techniques	6	AGR/03
Total compulsory credits		53
<b>Further elective courses</b>		
<p>The student must acquire 12 CFU by selecting any of the courses offered by the University of Milan, provided that they are coherent with their educational plan.</p> <p>The Didactic Board of Viticulture and Enology proposes, in the table below, some training activities.</p> <p>See also the paragraph Structure of the course - Presentation of the study plan.</p> <p>As part of the free-choice activities, the opportunity to carry out a second internship is offered, also possibly with an external company, in accordance with the University's procedures. In this case, the activities to be carried out during the internship will be under the direct responsibility of a university tutor and should not be considered a mere repetition of those carried out during the first one. The second internship will lead to the acquisition of 4 CFU.</p>		
Applied agrometeorology in a changing climate	4	AGR/03
Brewing and spirits technology	4	AGR/15
Cereals for malts and other semi-finished products preparation	4	AGR/15
Cultivation of plants for beer, liqueurs and spirits production	4	AGR/04
Sustainable management of fungal diseases of grapevine	4	AGR/12
Viticultural practices	4	AGR/16, AGR/09, AGR/11, AGR/15, AGR/12, AGR/03
<b>End of course requirements</b>		
Final exam	3	NA
Total compulsory credits		3

## COURSE PROGRESSION REQUIREMENTS

The course contains the following obligatory or advised prerequisites:

Learning activity	Prescribed foundation courses	O/S
Enochemical analysis	Organic chemistry	Core/compulsory
Viticulture: cultivation techniques	Agronomy	Core/compulsory
	Biology and genetics of grapevines	Core/compulsory
Enology 2	Enology 1	Core/compulsory
Enology 1	Enological and fermentations chemistry	Core/compulsory
	Physics	Core/compulsory
Agricultural chemistry	Organic chemistry	Core/compulsory
Enological and fermentations chemistry	Organic chemistry	Core/compulsory
Microbiology	Plant biology	Core/compulsory
Organic chemistry	General and inorganic chemistry	Core/compulsory
Enological microbiology	Microbiology	Core/compulsory
Biology and genetics of grapevines	Agricultural chemistry	Core/compulsory
	Plant biology	Core/compulsory