UNIVERSITA' DEGLI STUDI DI MILANO
PROGRAMME DESCRIPTION - ACADEMIC YEAR 2025/26
MASTER DEGREE
PLANT SCIENCE (Classe LM-6 R)
Enrolled in the academic year 2025/2026

HEADING

Degree classification - Denomination and code:	LM-6 R
Degree title:	Dottore Magistrale
Length of course:	2 years
Credits required for admission:	180
Total number of credits required to complete programme:	120
Years of course currently available:	1st
Access procedures:	Cap on student, student selection based on entrance test
Course code:	FBJ

PERSONS/ROLES

Head of Study Programme

Prof.ssa Isabella Dalle Donne

Degree Course Coordinator

Prof. Luca E. A. Gianfranceschi

Tutors - Faculty

Academic guidance: Prof. Luca Gianfranceschi
Erasmus and international mobility: Prof. Veronica Gregis
Study plan: Prof. Luca Gianfranceschi
Internships: Prof. Camilla Betti
Seminars, laboratories and other activities: Prof. Alex Costa
Master thesis: Prof. Camilla Betti
University and programme transfer tutor: Prof. Luca Gianfranceschi
Master's degree admission: Prof. Alex Costa
Credit recognition: Prof. Luca Gianfranceschi

Degree Course website

https://plantscience.cdl.unimi.it/en

Academic Services Office

via Celoria, 26, 20133 Milan – ground floor, C Building https://informastudenti.unimi.it/

Boards

Academic Board for Study Programmes in the Biology Sector: Head of Study Programme prof. Isabella Dalle Donne University of Milan – University Grenoble-Alpes Joint Board of Studies (JBS): prof. Luca Gianfranceschi (UNIMI), Prof. Camilla Betti (UNIMI), Stefania Scuderi (UNIMI), prof. Christel Carles (UGA), prof. Gabrielle Tichtinsky (UGA), Philippe Moreira (UGA)

International Students Office - Welcome Desk

via S. Sofia, 9/1, Milan https://www.unimi.it/en/international/coming-abroad/international-students-office-welcome-desk

Matriculation and enrollment

https://www.unimi.it/en/node/91/

Plant Science master degree email

Email: plant.science@unimi.it

Representative for disability services and specific learning disabilities (appointed by the Academic Board):

Prof. Diletta Dolfini Email: diletta.dolfini@unimi.it

Student administrative office

via Celoria, 18, 20133 Milan Phone 0250325032 https://www.unimi.it/en/node/360 https://www.unimi.it/en/node/359

CHARACTERISTICS OF DEGREE PROGRAMME

General and specific learning objectives

The Plant Science Master's degree aims at training professionals with a solid and integrated cultural background in basic biology, appropriate for applications in different areas of biology, focusing mainly on plant science. The students will acquire a high level of scientific preparation and in-depth knowledge and skills, taking into consideration molecular and cellular aspects, without neglecting applicative goals such as plant breeding and the protection and preservation of natural plant species. Students will acquire high-level skills, which will enable them to use the latest technologies to study complex plant biological systems. Thus, the objective of the course is to provide in-depth knowledge of specific plant biological mechanisms with special emphasis on morpho-anatomical developmental processes and how these are affected by their interaction with the environment. Among the specific objectives, the knowledge required to design and develop strategies to ensure continuous production of plant species deputed for consumption, even in the context of climate change, will be acquired to meet consumer and market needs. Students will also be trained on current regulations and processes for patent formulation and technology transfer. The Master programme encourages students to work both independently and in teams, thereby fostering the development of the skills needed to operate effectively in different working contexts. Other objectives are promoting the understanding of environmental policies and encouraging practices that increase environmental protection and preservation. To achieve these objectives, lectures and laboratory activities are planned to give solid theoretical and practical foundations, and, thus, provide multidisciplinary skills in the most innovative experimental techniques. A distinctive feature of the course is, in fact, the opportunity for students to undertake internships at the two university campuses, or at other universities and facilities with which the university has agreements, including both public and private institutions. This has also the aim of facilitating the students' transitions into the labour market and to enable them to establish professional networks. The course has a strong international dimension, promoting foreign language learning and internationalization, thus expanding graduates' job opportunities beyond national borders. Upon completion of the programme, graduates will possess the necessary skills to engage in professional and managerial activities with knowledge of the existing regulations. They will be able to communicate their knowledge and results in the scientific field effectively through lectures and seminars.

Expected learning outcomes

The expected learning outcomes, expressed according to the Dublin descriptors are:

Knowledge and understanding. Plant Science Master's degree aims to train highly qualified experts in biology, in general, and more specifically in plant science, who will be able to face the new challenges imposed by the bioeconomy. To this aim, the Master's programme provides a solid theoretical foundation in basic biological disciplines and a comprehensive knowledge in specific areas of plant molecular and cellular biology: physiology, plant development, biochemistry, genetics, and bioinformatics. Moreover, the student will have a multidisciplinary knowledge of the most relevant and innovative methodologies and techniques required for data acquisition and analysis.

Applying knowledge and understanding. Students will acquire skills that will enable them to apply the latest technologies to the study of plant biological systems. We expect students to develop competences that allow them to anticipate the use and application of plants in various fields, ranging from the production of metabolites of nutraceutical/pharmaceutical interest, to the creation of new plant varieties that meet consumer and market needs. They will be able to carry out analysis and characterization of complex biological systems by applying innovative procedures and using state-of-art instruments. They will be able to interpret data obtained from laboratory observations and measurements.
Students will have the opportunity to learn about the rules and procedures for patenting and technology transfer. One of the strengths of the Master's programme are the laboratory training activities aimed at providing a solid practical foundation, which is highly appreciated when applying for qualified job positions.

Decision-making.
The Masters graduate will be able to:
- Critically use the main scientific tools in the field of plant biology (from functional genomics to developmental biology, physiology, botany and ecology of plant systems)
- Design and organise laboratory activities
- Design and validate experimental protocols
- Critically analyse and solve scientific problems in plant biology
- Organise their work autonomously
- Make independent judgements on scientific and ethical issues
- Interpret scientific sources, data and literature

Autonomy of judgement will be acquired by the student through:
- Lectures which include the latest scientific findings and the reading and discussion of scientific articles
- Attendance at seminars or lectures given by experts in specific fields
- Oral presentations by students using multimedia programmes on topics indicated by the lecturer
- Preparation and presentation of papers at the end of work placements
- Presentation and defence of the final paper at the end of the placement before a committee of lecturers

Communication skills.
The Masters graduate will be able to:
- Communicate their knowledge using specialised vocabulary, both in writing and orally, and through multimedia presentations, using English or another EU language
- Converse with experts in specific fields of application
- Illustrate experimental data and write technical-scientific reports
- Develop and present research projects.

Learning skills
The graduate will acquire the ability to develop and continuously deepen skills related to: consulting specialised databases, learning innovative technologies, acquiring advanced cognitive tools for the continuous updating of knowledge.

The attainment of the expected results will be achieved and verified through the planned examinations on the taught subjects, as well as the scientific reports required for the discussion of the experimental data obtained during the internships. These reports include a written document, an oral presentation and a discussion of the work carried out in front of a committee of lecturers and/or researchers. The final examination is the final stage of the verification process. It assesses the full acquisition of expositive and communicative skills, as well as adequate scientific language proficiency.

Professional profile and employment opportunities

Biologist.
The decision to offer a Master's degree entirely in English and the close collaboration with UGA, where students are required to take part of the courses, broadens the graduate's job prospects, enabling them to enter the labour markets at national and international level.
The Master's course in Plant Science provides in-depth, state-of-the-art knowledge on the molecular and cellular aspects of plants, whether they are model organisms or species of agricultural interest, and their interactions with the environment.
The skills acquired in this degree course will equip the graduate with the ability to undertake roles of significant responsibility in professional areas such as:
- Basic and applied research activities in university laboratories, in other public or private research organisations, and in industry, with particular regard to plant organisms
- Developing and promoting scientific methodologies for the study of biological and, more specifically, plant-related questions
- Acquisition of the skills required for the performance of functions of responsibility in public or private bodies in charge of environmental protection and management, in biological research laboratories, in biotechnological and food industries, and in all professional fields in which a multidisciplinary approach to plant biology problems is required
- Publishing and science dissemination activities
- Teaching-related activities

Graduates will be eligible to take the state exam to obtain the qualification to practise as a biologist, and consequently registration in the National Order of Biologists (section A). To achieve greater levels of responsibility, further knowledge must be acquired through PhDs, Schools of Specialisation and Level II Masters.
Skills associated with the role
The holder of the Master's Degree in Plant Science has a specific and up-to-date cultural background in the field of plant biology, with skills ranging from molecular biology to ecology and genetic improvement of cultivated species. In particular, they acquire the following skills:
- The understanding of plant biological phenomena and the dissemination and transfer of this knowledge
- Ecosystem analysis, environmental impact assessment and biomonitoring
- Applied plant biology
Employment opportunities
- Universities and public and private research institutes
- Public and private laboratories for biological, microbiological, genetic analysis, quality control
- Biotechnology, pharmaceutical and chemical industries, biorefineries
- Scientific communication, dissemination and information, scientific publishing
- Agri-food companies operating in the field of plant breeding and seed production
- Companies involved in production of molecules of food, industrial and pharmaceutical interest in plant systems
- NGOs active in the field of cooperation with developing countries and within international organisations

Biotechnologist
Plant Science prepares graduates for positions of high responsibility in all professional fields in which research knowledge of plant biology is deepened, with particular reference to the use of plant biological systems and genetic engineering techniques for applications in various production sectors. Graduates will be able to take the State Examination for the Qualification of Biologist and thus be registered in the National Order of Biologists (Section A). In order to reach higher levels of responsibility, it is necessary to acquire further qualifications through PhDs, Schools of Specialisation and Level II Masters, after passing the relevant competitive examinations.
Skills associated with the role
Plant Science graduates have a solid cultural background in plant biotechnology, ranging from molecular biology to genetic

improvement of crop species using the latest technologies. They have specific expertise in:
- Plant and agricultural industrial biotechnology
- Phenotyping and large-scale data analysis
- Biomolecular analyses

Job opportunities
- Universities and public or private research institutions
- Biotechnological, pharmaceutical, chemical industries and bio-refineries
- Communication, dissemination and scientific information, scientific publishing
- Plant genetic improvement and seed production
- Agri-food sector;
- Production of molecules of food, industrial and pharmaceutical interest in plant systems
- NGOs active in the field of cooperation with developing countries and within international organisations

Botanist

The Master of Plant Science has a thorough knowledge of plants in their integrity, complexity and evolutionary context. The solid cultural background and in-depth knowledge of plant anatomy and morphology, plant responses to the environment and the latest techniques in microscopic image acquisition will prepare you specifically for professional and project-related activities in botanical fields, but also for positions of responsibility in pharmaceutical botany and scientific research, both in industry and in public bodies or institutes. Graduates will be able to take the national examination to obtain the qualification to practice as a biologist and consequently register in the Italian National Order of Biologists (Ordine Nazionale dei Biologi, section A). They will be able to access PhD positions, specialization schools and other Master's courses.

Skills associated with the role

The holder of a Master's degree in Plant Science has specific skills in
- Identification and classification of plant species
- Use of microscopy techniques to analyse species
- Use of bioinformatics tools applied to the study of environmental biodiversity

Employment opportunities
- Universities and public and private research institutes
- Biotechnology, pharmaceutical, chemical and biorefinery industries
- In the field of communication, dissemination and scientific information, scientific publishing
- Agri-food industries involved in plant breeding and seed production
- Industries involved in the production of molecules of food, industrial and pharmaceutical interest in plant systems

Researchers and technicians with a degree in life sciences

Plant Science graduates perform highly responsible functions in all professional fields requiring the development of research concepts and theories related to plant biology:
- Plans and carries out theoretical and experimental research aimed at extending and innovating the scientific knowledge of plants or their application in production
- Ensures the operation of laboratories and scientific equipment
- Defines and applies scientific protocols in laboratory experiments and in both basic and applied plant research activities
- Coordinates research groups in the industrial and public sectors

Graduates can take the State Examination for the qualification of Biologist and, thus, be registered in the National Order of Biologists (Section A). To reach higher levels of responsibility, it is necessary to acquire further knowledge through PhDs, Specialisation Schools and Level II Masters, after passing the relevant competitive examinations.

Competences associated with the role

The Master's Degree holder in Plant Science has a solid technical-scientific background in applied research methods in plant biology. In particular, he/she has competences in:
- Molecular biology, biochemistry, physiology and ecology of plants.
-The use of sophisticated equipment for the study of plants

Job opportunities
- Universities and research institutions;
- Public and private research laboratories.

Initial knowledge required

It is a fundamental prerequisite for admission to the Master of Science degree in Plant Science to have an adequate and sound knowledge of the basics of biological disciplines. The Master's programme in Plant Science has a scheduled access policy in accordance with Law 264/1999. The reasons for this are inherent in the structure of the course itself. The number of eligible students is determined year by year by the competent academic bodies, after assessing the structural, instrumental and human resources available for the running of the course. Graduates of the L-13 Biological Sciences class who are recognised as fully meeting the curricular requirements, provided that they have completed an educational pathway congruent with the indications of the National College-CBUI and have been duly certified, may be admitted to the Master's Degree in Plant Science. These requirements include:
- 66 ECTS (European Credit Transfer and Accumulation System) in the following Biology Scientific-Disciplinary Sector (SDSs) BIOS-01/A - General Botany, BIOS-01/B Systematic Botany, BIOS-01/C - Environmental and Applied Botany, BIOS-02/A - Plant Physiology, BIOS-03/A- Zoology, BIOS-04/A - Comparative Anatomy and Cytology, BIOS-05/A -

Ecology, BIOS-06/A - Physiology, BIOS-07/A - Biochemistry, BIOS-08/A - Molecular Biology, BIOS-014/A - Genetics, BIOS-015/A - General Microbiology.
- At least 6 ECTS of these 66 ECTS must be acquired in SDS BIOS-01/(A-B,-C), BIOS-02/A and at least 12 ECTS in SDS BIOS-04/A, BIOS-05/A, BIOS-06/A, BIOS-07/A, BIOS-08/A, BIOS-014/A, BIOS-015/A.
- 12 ECTS in SDS PHYS-01/A through PHYS-06/B, INFO-01/A - Computer Science, IINF-05/A - Information Processing Systems, MATH-01/A through MATH-06/A.
- 12 ECTS in SDS CHEM-01/A - Analytical Chemistry, CHEM-02/A - Physical Chemistry, CHEM-03/A - General and Inorganic Chemistry and CHEM-06/A - Organic Chemistry.

Graduates of the L-13 Biological Sciences class who have not followed an educational pathway in accordance with the CBUI indications, or those of class L-12 Biological Sciences according to Ministerial Decree 509/99, or of other classes, may also be admitted provided that they have an adequate number of credits, not less than 90 ECTS, in the above-mentioned groups of scientific disciplines; for graduates of class L-25 Agricultural and Forestry Science and Technology, the ECTS in the SDSs may also be assessed in order to meet the minimum requirements: AGRI-02/A - Agronomy and Herbaceous Crops, AGRI-03/A - General Arboriculture and Tree Nursery, AGRI-06/A - Agricultural Genetics, AGRI-05/B - Plant Pathology, AGRI-06/B - Agricultural Chemistry, AGRI-08/A - Agricultural Microbiology, AGRI-09/A - General Animal Husbandry and Genetic Improvement, MVET-01/A - Anatomy of Domestic Animals, MVET-01/B- Veterinary Physiology.

English language proficiency at level B2 or above of the Common European Framework of Reference for Languages is required for admission. The B2 level requirement will be assessed as follows:
- Language certificate at or above B2, obtained no more than three years earlier. For the list of language certificates recognized by the University of Milan review: https://www.unimi.it/en/study/language-proficiency/placement-tests-andenglish-courses/accepted-language-certificates). The certificate must be uploaded when submitting the online application
- English level achieved during a Bachelor's degree programme through the University of Milan Language Centre (SLAM) courses and tests. The test must have been passed within the last four years.
All those who fail to submit a valid certificate will be allowed to take the admission interview but will only be admitted to the MSc Plant Science if their level of English proficiency is unequivocally good.
The adequate personal preparation of the candidates and their ability to communicate in English are decisive elements for the admission and will be verified during the admission interview.

Admission procedure
The knowledge of the fundamentals of biological disciplines will be evaluated through the assessment of the Bachelor's degree programme and the direct assessment of the candidate's scientific knowledge. The candidate's knowledge in Biology will be evaluated through an interview with the Admission Committee, consisting of teaching members appointed by the University of Milan Biology Teaching Board. The interview will be conducted in English and will assess the candidate's competence on topics related to Biology and Plant Science. Additionally, it will ascertain the candidate's knowledge of English, in case a valid certificate is not submitted by the candidate.
Failure to pass the personal preparation tests during the admission interview will result in the candidate being barred from admission to the Master's degree course for the current year.
The committee evaluates the candidate on a 100-point scale:
- Up to 25 points will be given for the graduation grade; for undergraduates the average grade of the sustained teaching activities will be evaluated
- Up to 10 points for the curriculum (type of degree, extra-curriculum free courses, Erasmus experience, etc.)
- Up to 65 points for the interview
A minimum total score of 60 out of 100 points is required for admission.
For EU citizens and EU residents who do not require a Visa the admission interview will take place on 18 June 2025, 2:00 pm (CEST) at the Department of Biosciences, Via G. Celoria 26, Milan. Check the website for more information regarding the room. Applicants not residing in Italy can ask to have an online interview by sending a
request to the following email address plant.science@unimi.it.
Non-European applicants who do not reside in an EU member state (Visa applicants) will be evaluated based on their curricula and, provided all CV requirements are met, invited to an online interview that will take place on 7 May 2025. Details will be supplied to the admitted candidates in the invitation email.
The call for applications for the academic year 2025-2026 will be published in March 2025 and will contain detailed instructions (https://www.unimi.it/en/education/plant-science). To be admitted to the interview, candidates must present a valid identity document. Foreign candidates who are not resident in Italy and who have obtained their bachelor's degree abroad will be assessed based on their curriculum vitae and educational background and may be admitted to an online interview if they meet the requirements.
It is advisable to check for any updates regarding exam dates and times on the website https://plantscience.cdl.unimi.it/en or by writing to the Master's programme e-mail plant.science@unimi.it.
After admission, enrolment at both universities (UNIMI and UGA) is required, but tuition fees are due only at the University of Milan. Specific campus fees for the programme running may be asked at UGA.

Compulsory attendance

Attendance is compulsory for all internships. Attendance is compulsory for courses held at the UGA. For courses held at UNIMI, attendance is not compulsory but highly recommended.

Internship criteria

Three internships are included in the teaching programme (Laboratory stage – 6 ECTS, Internship 1 - 12 ECTS and Thesis internship - 24 ECTS). All internships are compulsory and required for graduation. Each internship will be evaluated and credited with ECTS. Voluntary internship (not credited with ECTS) may also be included if related to the study project or professional project.

The location where the internship is carried out and topic must be agreed upon by both Universities via the JBS. The JBS shall name at least one academic supervisor for each internship.

According to Italian and French national rules, all students must establish specific internship agreements with at least one of the two universities and the host institution or host company, even if the internship takes place in a third Country. The agreement must precisely indicate the period of internship and the supervising PI.

The internship for the Master's thesis follows the general rules (above) for internship, with the following additions: - The Master's thesis must be carried out under the supervision of two supervisors, one named by the home institution (relatore) and the other by the host institution (correlatore) and both approved by the JBS. The final master thesis will be a report written in English.

Degree programme final exams

The final examination includes a period (24 ECTS) of research activity on topics related to the Master's course, to be carried out at UNIMI or UGA. Alternatively, it can be carried out in an external public or private institution with an agreement with one of the two universities, under the supervision of a teacher at the home University. Through this activity, the student acquires knowledge of experimental methodology, analytical tools, data analysis and processing techniques and prepares a thesis of an experimental nature that makes an original contribution to scientific knowledge in the field. The thesis, written in English, must in all cases be an original piece of work of biological interest, aimed at solving a scientific problem and documenting the ability to correctly apply the experimental method. It is not permitted to submit a thesis that is merely a compilation of existing work (compilation thesis).

Once the student has obtained the required 96 ECTS in accordance with the current resolutions, he/she will be admitted to the final examination, which consists in the presentation and public discussion of the thesis in English. This examination is held at the home university, the university of first enrolment. At UNIMI, the Master's degree in Plant Science is obtained by passing a final assessment by a thesis's committee that includes at least one UGA representative who can be connected remotely, if necessary. The final grade will be on a 110-point scale. Such grade will be used by the partner university for the award of the corresponding title and the conversion of the degree grade, according to the conversion table reported in Annex 3 to the Joint International Degree Cooperation Agreement. More details can be found on the web page: https://plantscience.cdl.unimi.it/en/study/graduating. The degree issued by the Committee is "Laurea Magistrale" (Master's degree) in Biology, in relationship to the Master's course in Plant Science.

The JBS will take care to communicate the results – including the evaluation of the thesis - to the partner University for the awarding of the UGA Master's Degree. The conversion of diploma grade into the French grading system is part of the agreement between the two Universities and is available at https://plantscience.cdl.unimi.it/en

Campus

At UNIMI, classrooms are located in the University buildings, via Celoria, 26 (Edifici Biologici); via Celoria, 20 (Settore Didattico); via Golgi, 19 (Edificio Golgi), via Colombo 62 (Settore Didattico via Colombo), via Celoria 2 (Department of Agricultural and Environmental Sciences); most laboratories are located in the Department of Biosciences, via G.Celoria 26, Milan and in the Department of Agricultural and Environmental Sciences - Production, Landscape, Agroenergy, via G. Celoria 2, Milan.

At UGA, information is available at the following website: https://master-biologie.univ-grenoble-alpes.fr/majors/plantainternational-plant-int-/planta-international-plant-int--298457.kjsp

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 organisations.

Similar international mobility opportunities are provided outside Europe, through agreements with a number of prestigious institutions.

The University of Milan is a member of the 4EU+ European University Alliance that brings together eight public multidisciplinary universities: University of Milan, Charles University of Prague, Heidelberg University, Paris-Panthéon-Assas University, Sorbonne University of Paris, University of Copenhagen, University of Geneva, and University of Warsaw. The 4EU+ Alliance offers integrated educational pathways and programmes to promote the international mobility of students (physical, blended and virtual).

Study and internships abroad

The Master’s degree in Plant Science is the result of an agreement between UNIMI and UGA, France, establishing a joint Master’s degree at the two Universities (https://www.unimi.it/en/international/study-abroad/double-degree).
All Plant Science students whose home University is UNIMI will receive a contribution to support higher costs arising from their stay at UGA, during the first semester. The level of each contribution will relate to the ISEE declared by the relevant student.

Students interested in conducting internships abroad can also take advantage of the Erasmus+ mobility for Traineeship program and the "Thesis Abroad" call (https://www.unimi.it/en/international/study-abroad). The international mobility advisor for biological area is prof. M. Cristina Bonza (cristina.bonza@unimi.it).

For further assistance, you can also contact the:
International Mobility Office
via Santa Sofia 9 (second floor)
Tel. 02 503 13501-12589-13495-13502
Contacts: InformaStudenti; mobility.out@unimi.it
Student Desk booking through InformaStudenti
https://www.unimi.it/en/study/student-services/welcome-desk-informastudenti

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 organises 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;
Student Desk booking through InformaStudenti

1st COURSE YEAR Core/compulsory courses/activities common

Learning activity	Ects	Sector
Evolutionary Biology of Plants (UGA)	6	BIO/02
Introduction to Plant development and Signal transduction (UGA)	6	BIO/01
Plant development	6	BIO/01
Plant Signal Transduction	6	BIO/04
Strategies in Experimental Biology (UGA)	12	(3) BIO/11, (3) BIO/10, (3) BIO/18, (3) BIO/04
Total compulsory credits	36	

Further elective courses		
The student must choose one of the following courses:		
EvoDevo in the green lineage (UGA)	6	BIO/02
Plant ecology	6	BIO/02
Plant-Environment Interactions	6	BIO/01
The student must choose one of the following courses:		
Advanced Plant Cell Biotechnology	6	(3) BIO/18, (3) BIO/04
Chemistry and Cellular Biochemistry (UGA)	6	BIO/10
Epigenetics and cell differentiation (UGA)	6	BIO/18
Functional Genomics	6	BIO/18
Molecular genetics and epigenetics of the cell (UGA)	6	BIO/18
Molecular Plant Breeding and Genetics	6	BIO/18
Photobiology and Bioenergy	6	(3) BIO/18, (3) BIO/04
The student must choose one of the following courses:		
Biostatistic, Bioinformatics and Modeling (UGA)	6	BIO/13
High-throughput Biology (UGA)	6	BIO/13
Molecular bioinformatics	6	INF/01
Patenting and technology transfer	6	(3) IUS/14, (3) IUS/10
Basic Statistics and Experimental design	6	(4) SECS-S/02, (2) AGR/02
Development of Crop Idiotypes	6	AGR/07
Environmental Plant Biochemistry and Physiology	6	AGR/13
Molecular and Cellular Imaging	6	(3) FIS/07, (3) FIS/03
The student must choose one of the following courses:		
Communication tools and Scientific English (UGA)	6	(3) L-LIN/12, (3) SPS/08
Entrepreneurship and Science and Scientific English (UGA)	6	(1) SECS-P/09, (2) SECS-P/07, (3) L-LIN/12
Open choice courses: the student must acquire 12 ECTS		
The 3 ECTS corresponding to Additional Language Skills correspond to the optional achievement of the basic level of Italian for foreign students (at least A2). For the foreign students who decide to acquire the additional language skills of the Italian language must necessarily choose the shorter laboratory stage (3 ECTS), while in all other cases it is mandatory to choose the laboratory stage (6 ECTS).		
Additional Language Skills: Italian (3 ECTS)	3	ND
Laboratory stage (3 ECTS)	3	NA
Laboratory stage (6E CTS)	6	NA
End of course requirements		
Final dissertation	24	NA
Total compulsory credits	24	

COURSE PROGRESSION REQUIREMENTS

There are no propaedeutic courses in Plant Science that can limit progression from the first to the second year. First- year students must acquire 60 ECTS within September 30th in order to be admitted to the second year.