UNIVERSITA' DEGLI STUDI DI MILANO
PROGRAMME DESCRIPTION - ACADEMIC YEAR 2025/26
BACHELOR
CHEMISTRY (Classe L-27 R)
Enrolled in the academic year 2025-2026

HEADING

Degree classification - Denomination and code:	L-27 R
Degree title:	Dottore
Length of course:	3 years
Total number of credits required to complete programme:	180
Years of course currently available:	1st
Access procedures:	Open, subject to completion of self-assessment test prior to enrolment
Course code:	FAF

PERSONS/ROLES

Head of Study Programme

Luigi Falciola

Tutors - Faculty

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Emma Gallo (Tel. 0250314374; e-mail: emma.gallo@unimi.it)

Degree Course website

https://chimica.cdl.unimi.it

Department of Chemistry

Via Golgi, 19 - 20133 MILANO http://www.chimica.unimi.it

Department of chemistry teaching office

Via Golgi, 19 - 20133 MILANO Phone 02 50314419 Ricevimento in presenza dal lunedì al venerdì ore 10.00-12.00, in altri orari su appuntamento. Puoi chiederci le informazioni di cui hai bisogno scrivendo allo sportello online InformaStudenti: https://www.unimi.it/it/node/359/

Representative for SLD and disability

Mariangela Longhi Phone 0250314226 Email: mariangela.longhi@unimi.it

Student administration offices

Via Celoria, 18 - 20133 MILANO 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 first specific educational objective of the degree course in Chemistry is the training of a graduate who possesses the skills and knowledge suitable for carrying out professional activities in the field of chemical sciences, contributing to activities such as the application of chemical procedures and protocols, the development and characterization of new

products and materials, the testing of new technologies, the creation of products, chemical analyzes and quality controls that require mastery of chemical and instrumental techniques and the subsequent processing of reports relating to the results of the analyses, the 'execution, within a pre-established program, tests and laboratory trials for the development of new products. The training course allows you to learn the necessary experimental techniques for chemical synthesis, the determination of chemical and chemical-physical properties of matter, analysis methods and calculation tools. The graduate will be able to provide opinions on pure and applied chemistry and carry out any other activity defined by current legislation in relation to the profession of junior chemist.
Another specific objective of the degree course in Chemistry is to enable the student both to continue with higher studies and to immediately enter a professional activity. In this context, the course aims to provide students with adequate mastery of basic scientific methods and contents to facilitate an easy entry into the world of work, or to access a subsequent master's degree course.

In detail, the graduate of this course will possess:
- adequate knowledge of basic mathematical tools for applications in the chemical field; essential elements of differential and integral calculus; first notions for dealing with the study of differential equations;
- adequate knowledge of classical physics: mechanics, electromagnetism, optics and wave propagation;
- adequate IT knowledge preparatory to learning chemical disciplines, with particular attention to the understanding and processing of experimental data for a critical and informed use of scientific calculation software;
- a good knowledge of basic chemistry in the four main disciplinary areas (analytical chemistry, physical chemistry, inorganic chemistry and organic chemistry), both for the fundamental skills and for the more characterizing and applicative aspects;
- knowledge and skills of the scientific method, both from a theoretical and application point of view;
- a good knowledge of laboratory experimental methods;
- the ability to apply innovative methods and techniques and use complex equipment;
- adequate knowledge to address problems related to environmental sustainability and prevention and safety regulations in the workplace.

Graduates of the course will therefore be in possession of knowledge suitable for carrying out professional activities (including in the industrial sector), in research, control and analysis laboratories; in the sectors of synthesis and characterization of new materials, health, nutrition, environment and energy; in the conservation of cultural heritage, applying the disciplinary investigation methods acquired, with autonomy within the scope of defined procedures.

The graduate will be able to register (after passing the relevant state exam) in the Register of the National Order of Chemists and Physicists as a JUNIOR CHEMIST (section B - Chemistry), to carry out the activities recognized by current legislation.

In this degree course, the indications of the Italian Chemical Society on the basic disciplinary contents (Core Chemistry) for the Degree Courses activated in Class L-27 have been implemented in addition to the indications necessary for the 'Chemistry Eurobachelor' accreditation of the ECTN.

Eurobachelor®
The degree course in Chemistry at the University of Milan is among the first in Italy to have received - in December 2009 - the Eurobachelor Label. Eurobachelor accreditation is assigned by a special commission designated by the European Thematic Association (https://ectn.eu/), which brings together European universities and chemical companies. The Eurobachelor Label qualifies the qualification, provided by the three-year degree in Chemistry, as a degree recognized by other European university institutions and gives the right of automatic access to the Master's Degree courses of a chemical nature in Europe.

Expected learning outcomes

At the end of the degree course in Chemistry, thanks to lectures, laboratory teaching, an experimental internship in a research laboratory and interdisciplinary activities, students will have acquired *knowledge and understanding* of problems in the fields of scientific disciplines and in particular analytical chemistry, physical chemistry, inorganic chemistry, organic chemistry, demonstrating familiarity with the scientific approach and method for the solution of problems typical of the professions of research, development, production, quality control and regulatory activities.

They will also possess the *ability to apply knowledge and understanding* thanks to theoretical training combined with intense experimental activity in numerous educational laboratories, conducted at a single desk to strengthen their awareness of "know-how", or in groups to improve skills interaction with others, leadership and teamwork), training graduates capable of applying their interdisciplinary skills as well as advanced skills to professional problems directly and indirectly linked to the chemical sector, demonstrating the mastery and innovation necessary to solve problems complex and unpredictable in their own right specialized field of work or study.

As part of *independence of judgement*, students will be able to plan and conduct an experiment, planning the times and operating methods also on the basis of the equipment available; interpret the scientific data deriving from observation and measurements carried out in the laboratory using the acquired techniques; critically evaluate the data and detect any anomalies and inconsistencies in the results; evaluate and quantify the results and expose them by drafting specific scientific

reports.

As part of *communication skills*, graduates of the Chemistry degree course are able to interact with other people and conduct collaborative activities; communicate ideas, problems and solutions to specialist and unqualified interlocutors, both in Italian and in English; expose the data through reports and/or presentations also using cutting-edge multimedia systems; acquire, disseminate and disseminate scientific information through the use of databases and online databases.

Finally, the degree course in Chemistry is aimed at encouraging the development of the potential for autonomous reflection and independent study on the part of students and aims to encourage the development of further *learning skills*, as well as the acquisition of skills and competences. methodological and theoretical that allow their graduates to undertake the continuation of their studies within the framework of master's degrees.

Professional profile and employment opportunities

CHEMICAL

- function in a work context -
the Chemist possesses knowledge suitable for carrying out professional activities in the sectors of synthesis and characterization of new products and new materials, health, nutrition and cosmetics by applying the disciplinary investigation methods acquired. The Chemist designs and synthesizes new products. It can deal with quality control and environmental control, wastewater treatment and disposal processes. Knows the strategies and procedures for the synthesis, transformation and purification of chemical compounds, the techniques for chemical and physical analyses, the scientific method of investigation and data management.
Graduates in Chemistry can enroll in the Register of the Order of Doctors of Chemists and Physicists with the professional title of Junior Chemist after having passed the specific state exam for the qualification to practice the profession.

skills associated with the function
the Chemist must possess, in addition to an in-depth knowledge of chemical science and technology, also the rigor necessary to promptly apply the scientific method. This profession requires fundamental knowledge of the issues related to chemical synthesis and data interpretation, as well as safety regulations. Furthermore, he or she must possess considerable expertise in chemical analysis methods, have an aptitude for the use of current information technologies and know at least English.

employment opportunities
employment opportunities are in public and private research bodies, analysis, quality control and certification laboratories and industries and work environments that require basic knowledge in the chemical sectors. In the public sector, chemists can work in the technical and ecological offices of local authorities, in patent offices, in customs laboratories, with a healthcare role in the Public Health Laboratories and in the Prevention Laboratories of the ASL of some regions, in the analysis laboratories or in workplace accident prevention services. The freelance profession is generally carried out in analysis and quality control laboratories or as a consultant for design, plant management, authorization practices in the environmental field and risk analysis as well as with assignments in the courts. Furthermore, graduates in Chemistry can continue their studies in master's degree courses in the scientific field and in particular within the Chemistry degree classes: LM54 and LM71, but also in master's degree courses in similar classes.

GRADUATED CHEMICAL LABORATORY TECHNICIAN

- function in a work context -
the chemical laboratory technician is an operator capable of correctly carrying out the synthesis and analysis of samples of all types (water, air, earth, industrial waste, food products, cosmetics) in order to determine, through chemical and physical parameters, the presence of analytes and polluting and/or harmful substances. They can work in environmental control or chemical analysis laboratories, in analysis laboratories with control tasks in the chemical, commodity, biochemical, pharmaceutical, cosmetic, ecological sectors, or in chemical and biotechnological industries with management and control cooperation tasks.

skills associated with the function
the chemical laboratory technician requires not only knowledge of analytical and laboratory techniques but also precision and scientific rigor.

employment opportunities
employment opportunities are in public and private research bodies, analysis, quality control and certification laboratories and industries and work environments that require basic knowledge in the chemical sectors.

RESEARCHER IN CHEMICAL AND PHARMACEUTICAL SCIENCES

- function in a work context -
this graduate designs and develops new products, mainly in the pharmaceutical or other industrial sectors, and can also deal with quality control, certification and warehousing of these products.

skills associated with the function
the researcher in the chemical and pharmaceutical sciences is able to test new products and applications, carry out the synthesis of drugs, knows the techniques and laboratory instruments for chemical and physical production and analyses, the pharmacological and toxicological properties, the regulations in force on the subject. Furthermore, he or she must have skills in using IT tools and the ability to work in project teams (project management).

employment opportunities
employment opportunities are in public and private research bodies, in pharmaceutical, cosmetic, food or other industrial sector companies, in local health authorities or university research institutes.

SCIENTIFIC INFORMATION AND COMMUNICATION

- function in a work context -
this graduate increases scientific knowledge on the subject, uses and transfers this knowledge in industry, medicine, pharmacology and other production sectors. He makes industrial operators aware of the characteristics and properties of his company's products. The function of the scientific informant and communicator is to propose the adoption of specific products, develop scientific information activities at interested companies to ensure their correct use. The exercise of the profession of scientific drug informant is regulated by state laws.

skills associated with the function
the skills necessary for the scientific representative in carrying out his work consist not only of scientific knowledge, but also of commercial skills. In particular, he or she must have: good basic knowledge of chemistry, knowledge of pharmaceutical, cosmetic and food products and their correct use. Knowledge of technical English and IT, the ability to communicate and resourcefulness complete this professional profile.

employment opportunities
the scientific representative works for cosmetic, pharmaceutical, food, plastic, dye, detergent, glue or environmental companies, or in general for all companies in the chemical sector and/or for specialist magazines.

Initial knowledge required

To be admitted to the Bachelor’s degree programme in Chemistry, applicants must have a higher secondary school diploma or other foreign qualification and have been granted the appropriate initial training. The degree programme is open access.
Knowledge required for access is: basic knowledge of mathematics and science, ability to make simple logical inferences and text comprehension, The level of education is similar to that obtained in secondary school.

Methods of checking knowledge and personal preparation
The Chemistry degree programme is open-access.
Admission to the degree programme involves a compulsory, but not selective, test to be taken before enrolment, aimed at verifying the initial preparation of students in terms of minimum knowledge requirements of basic scientific disciplines. The non-selective access test involves taking the TOLC (On-line CISIA Test) which can be taken at the University of Milan or at any other university member of the CISIA (Consorzio Interuniversitario Sistemi Integrati per l'Accesso). Registration for the TOLC is directly on the CISIA website (www.cisiaonline.it). The TOLC valid for registration to the Bachelor’s degree in Chemistry is the TOLC-S, composed of the following sections: Basic mathematics (20 questions - 50 minutes), Reasoning and problems (10 questions - 20 minutes), Comprehension of the text (10 questions - 20 minutes), Basic science (10 questions of chemistry, physics and geology - 20 minutes), English (30 questions - 15 minutes). Each question has 5 possible answers, of which only one is correct.

Score: +1 for each correct answer, -0.25 for each wrong answer, 0 for each unanswered answer.
The result of the English section does not replace the assessment of the knowledge of the English language required by the degree programme for the acquisition of the relevant credits (see paragraph Language tests), but constitutes a self-assessment for the student. Further information on the structure and topics of the test can be found at the following link: https://www.cisiaonline.it/area-thematica-tolc-scienze/struttura-della-prova-e-syllabus/

Students who have passed the compulsory (but not selective) TOLC-S intend to use it to access the Bachelor’s degree in Chemistry of the University of Milan MUST register on the site of the CdS to proceed with registration within the deadlines indicated in the call.
For more details on the call, deadlines and admission/ registration procedures we recommend you to consult the page https://www.unimi.it/it/studiare/frequent-un-course-of-degree/enrol

Access by transfer or for students who have already graduated
Students already enrolled in a degree program at the University of Milan, another university, or those who have already graduated may be exempt from the admission test only if they meet the requirements for admission to years following the first in the edition of the degree program reserved for students enrolled up to the 2024-2025 academic year. Specifically, they must have at least 30 ECTS credits related to first-year courses, including at least 9 credits that can be validated for the

Institutions of Mathematics exam.
To this end, applicants must submit a specific request for a preliminary career evaluation by accessing the online service indicated in the admission call. Applicants must declare all exams taken, including their subject areas, credits, and grades, and attach the course syllabi. For further details on the procedure, please refer to the admission call.
The application will be reviewed by the Degree Program's Transfer Committee. If the applicant is not eligible for admission to years beyond the first, they will be required to take the initial knowledge assessment test.
Requests for evaluation, along with the syllabi of the completed exams, must be submitted strictly by the deadline published in the admission call, and the evaluation outcome will be communicated via email.
Students admitted to years following the first must complete enrollment within the deadlines and according to the procedures specified in the admission call.
Students admitted to the first year must take the initial knowledge assessment test and submit an admission application as indicated in the admission call.
Similarly, to expedite the administrative process, all requests for exam equivalency and/or recognition of prior academic careers must include the syllabi of the completed exams..

Additional training requirements (OFA) and OFA recovery procedures
Students who do not achieve a score of 10 or higher in the Basic Mathematics section of the TOLC-S will be assigned Additional Learning Obligations (OFA).
For students with OFA, support activities will be organized between October and December, followed by a recovery test (to be completed by January of the year following enrollment). This test is designed to demonstrate improved preparation.
If the student fails to provide such evidence, they will not be allowed to take any second-year exams until they pass the Mathematics Institutions exam.

Compulsory attendance
Attendance at laboratory activities is mandatory, in all other cases strongly recommended.

Internship criteria
Towards the end of the course of study, a compulsory training internship (9 credits) is expected to be carried out according to the methods indicated below. The internship activity is divided into:
- *Internal internship*: consisting of an activity in the chemical field carried out by the student at the Department of Chemistry of the University of Milan or the Departments connected to the Faculty of Science and Technology of the University of Milan under the guidance of a Supervisor, possibly assisted by a co-supervisor;

- *External internship*: consisting of an activity in the chemical field carried out by the student in the Departments linked to other Faculties of the University of Milan, or in public or private organizations or companies, under the guidance of a Manager (Company Tutor) and the supervision of an internal supervisor.

To start the internship the student must have obtained at least 128 credits.
The submission of the application for entry into the internship can take place up to the 1st day of each month for entry into the internship - unless approved by the Teaching Committee - to the 20th day of the same month, with the sole exception of the month of August .
The application for admission must be sent to the Teaching Office of the Department of Chemistry following the instructions and on the appropriate form available on the website https://chimica.cdl.unimi.it/it/studiare/stage-e-tirocini
In the case of external internships at organizations or companies, students must contact the Thesis and Internships Commission in good time (paola.fermo@unimi.it) to start the authorization procedure. In this regard, please consult the specific regulation, which can be found on the CdS website.
Students who are admitted to carry out the internship under the Erasmus project must submit an application before leaving for the destination university. In this case, the CFU requirement is waived as long as the students have achieved, upon return, 128 CFU through exams taken abroad. Otherwise, the internship will not be valid for the purposes of obtaining the qualification. For further information, you can contact the Internationalization and Erasmus Commission (emma.gallo@unimi.it).

The Supervisor is the guarantor towards the Teaching Committee of the activity assigned to the student during his internship and of its correct execution. All professors and researchers who carry out teaching activities of a chemical nature, belonging to the Teaching College or the Department of Chemistry or belonging to the Departments linked to the Faculty of Science and Technology, can be Speakers. The Rapporteur may be assisted by a Co-Supervisor. In addition to all the teachers included in the category of Official Speakers, the following can be Internship Co-Supervisors:
the official teachers of other universities and polytechnics, including foreign ones;
graduates declared experts in the subject;
employees of the University of Milan, classified as non-teaching staff with a level equal to or higher than D and declared experts in the subject;
the C.N.R. researchers who operate within the Department of Chemistry;
the experts designated by the structures hosting the external internships.
Special cases may be taken into consideration by the CD, if people of particular scientific-technical importance are involved. In this case, the Supervisor must briefly document in writing the specific expertise of the proposed Co-Supervisor on the topic of the thesis research.

In the case of an external internship, in addition to the internal supervisor, there is an external supervisor (company tutor) who is the educational-organizational manager of the internship activity and is identified by the company hosting the internship.
Any anomalous cases will be examined by the Thesis and Internship Commission, which will formulate its decisions and submit them for approval by the Teaching Committee.

Degree programme final exams

To obtain the degree the student must have acquired 180 credits. The final test consists in the discussion before a special Commission of a written report drawn up by the student independently, under the guidance of a supervisor, relating to the activity carried out in the training internship. This paper must describe the activity carried out by the student in research groups or companies during the internship, and must document the fundamental aspects of the activity carried out in relation to the current state of knowledge in the chemistry sector.
To be admitted to the final official proclamation, the student must have passed all the exams required by the study plan (including the test of knowledge of the English language) and have obtained approval of the internship, for a total of 177 ECTS.

SESSIONS FOR DEGREE EXAMS
July 2026
October 2026
December 2026
February 2027
April 2027

Notes

In order to obtain the degree, students are required to have at least a B1 level proficiency in English, according to the Common European Framework of Reference for Languages (CEFR). This level can be certified in the following ways:

- By submitting a language certification obtained no more than three years prior to the submission date, at B1 level or higher (for the list of language certifications recognized by the University, please refer to: https://www.unimi.it/en/study/language-proficiency/placement-tests-entry-tests-and-english-courses). The certification must be uploaded at the time of enrollment or later through the portal http://studente.unimi.it/uploadCertificazioniLingue.

- By taking the Placement Test, administered by the University Language Center - SLAM, exclusively during the first year, from October to December. If the test is not passed, students will be required to attend the courses provided by SLAM.

The Placement Test is mandatory for all students who do not hold a valid language certification. Those who do not take the Placement Test by December or fail the final course test within six attempts must obtain a certification independently before graduation.

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

As part of the study plan, students can participate in the Erasmus program projects activated for the Degree Course. In particular, within the Erasmus + programme, students can choose between 16 associated European universities. At these locations, students can obtain training credits by following courses and passing the relevant exams, or by carrying out part or all of the final internship. The acquisition of training credits is subject to approval by the Teaching Committee of a specific study plan (Learning Agreement) and the passing of exams at the foreign institution.
Interested students are asked to make an appointment in advance with the Tutor for international mobility and Erasmus (prof. Emma Gallo, Tel. 0250314374; e-mail: emma.gallo@unimi.it) for the preparation of the procedures. Students can also participate in numerous seminar meetings with foreign teachers.

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
Analytical Chemistry: Fundamentals and Electroanalysis/Analytical Chemistry Laboratory: Fundamentals and Electroanalysis		12	CHIM/01
Complements of Mathematics and Numerical Analysis		6	MAT/08
English assessment B1 (3 ECTS)		3	ND
General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory		12	CHIM/03
Mathematics		12	MAT/03
Organic Chemistry I		7	CHIM/06
Physics		9	FIS/02
	Total compulsory credits	61	

2nd COURSE YEAR (available as of academic year 2026/27) Core/compulsory courses/activities common

Learning activity		Ects	Sector
Analytical Chemistry wit lab: Spectroscopic and Chromatographic Techniques		12	CHIM/01
Inorganic Chemistry		8	CHIM/03
Organic Chemistry II		7	CHIM/06
Organic Chemistry Laboratory		10	CHIM/06
Physical Chemistry I/Physical Chemistry Laboratory I		12	CHIM/02
Physical Chemistry of Matter and Fundamentals of Spectroscopy		6	CHIM/02
	Total compulsory credits	55	

Elective courses

In the second year of the course, students must acquire 6 CFU by freely choosing among all the activities and courses activated by the University that are functional to the training path of the LT in Chemistry.
Students are advised to take the 6 ECTS courses specifically designed for the degree course (see table below).

3rd COURSE YEAR (available as of academic year 2027/28) Core/compulsory courses/activities common

Learning activity	Ects	Sector
Biological Chemistry	6	BIO/10
Chemistry of Coordination Compounds with Laboratory	10	CHIM/03

Experimental Methods for Structural and Thermal Analysis		6	CHIM/01
Organic Chemistry III		6	CHIM/06
Physical Chemistry II with Laboratory		6	CHIM/02
Physical Chemistry III		6	CHIM/02
	Total compulsory credits	40	

Elective courses			
In the second and third year of the course, students must acquire 12 CFU by freely choosing among all the activities and courses activated by the University that are functional to the training path of the LT in Chemistry. Students are advised to take advantage of this list of 6 ECTS courses designed specifically for the degree course.			
Analytical Chemistry for the Excellence of the Territory		6	CHIM/01
Chemistry of Heterocyclic Compounds		6	CHIM/06
Physical Chemistry of Materials		6	CHIM/02
Structural Chemistry		6	CHIM/03
Synthetic and biobased polymers		6	CHIM/04
End of course requirements			
Final exam		3	ND
Training		9	ND
	Total compulsory credits	12	

COURSE PROGRESSION REQUIREMENTS

- The exams indicated as the first course must be taken before the corresponding exams indicated as the second course, which in turn must be taken before the corresponding exams indicated as the third course.
- The "Mathematics Institutions" and "General and Inorganic Chemistry / General and Inorganic Chemistry Laboratory" exams must be taken before the 2nd year and 3rd year exams.
- The "General Physics" and "Complements of Mathematics and Numerical Calculus" exams must be taken before the 3rd year exams.
- The exam of "Analytical chemistry: fundamentals and electroanalysis with laboratory" must be taken before those of "Analytical chemistry: spectroscopic and chromatographic techniques with laboratory" which in turn must be taken before that of "Instrumental methods for the structural and thermal analysis".
- The "Organic Chemistry I" exam must be taken before the "Organic Chemistry Laboratory" and "Biological Chemistry" exams.

However, it is advisable to take the exams of each semester before taking those of the following semesters.

Learning activity	**Prescribed foundation courses**	**O/S**
Organic Chemistry Laboratory	General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory	Core/compulsory
	Mathematics	Core/compulsory
	Organic Chemistry I	Core/compulsory
Physical Chemistry I/Physical Chemistry Laboratory I	General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory	Core/compulsory
	Mathematics	Core/compulsory
Analytical Chemistry wit lab: Spectroscopic and Chromatographic Techniques	General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory	Core/compulsory
	Mathematics	Core/compulsory
	Analytical Chemistry: Fundamentals and Electroanalysis/Analytical Chemistry Laboratory: Fundamentals and Electroanalysis	Core/compulsory
Physical Chemistry of Matter and Fundamentals of Spectroscopy	General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory	Core/compulsory
	Mathematics	Core/compulsory
Biological Chemistry	General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory	Core/compulsory
	Mathematics	Core/compulsory
	Physics	Core/compulsory
	Organic Chemistry I	Core/compulsory
	Complements of Mathematics and Numerical Analysis	Core/compulsory
Chemistry of Coordination Compounds with Laboratory	General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory	Core/compulsory
	Mathematics	Core/compulsory
	Physics	Core/compulsory
	Complements of Mathematics and Numerical Analysis	Core/compulsory
Physical Chemistry II with Laboratory	Physical Chemistry I/Physical Chemistry Laboratory I	Core/compulsory
	General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory	Core/compulsory
	Mathematics	Core/compulsory
	Physics	Core/compulsory
	Complements of Mathematics and Numerical Analysis	Core/compulsory
Organic Chemistry III	General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory	Core/compulsory
	Mathematics	Core/compulsory
	Physics	Core/compulsory
	Complements of Mathematics and Numerical Analysis	Core/compulsory
	Organic Chemistry II	Core/compulsory

Experimental Methods for Structural and Thermal Analysis	Analytical Chemistry wit lab: Spectroscopic and Chromatographic Techniques	Core/compulsory
	General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory	Core/compulsory
	Mathematics	Core/compulsory
	Physics	Core/compulsory
	Analytical Chemistry: Fundamentals and Electroanalysis/Analytical Chemistry Laboratory: Fundamentals and Electroanalysis	Core/compulsory
	Complements of Mathematics and Numerical Analysis	Core/compulsory
Physical Chemistry III	Physical Chemistry I/Physical Chemistry Laboratory I	Core/compulsory
	Physical Chemistry II with Laboratory	Core/compulsory
	General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory	Core/compulsory
	Mathematics	Core/compulsory
	Physics	Core/compulsory
	Complements of Mathematics and Numerical Analysis	Core/compulsory
Inorganic Chemistry	General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory	Core/compulsory
	Mathematics	Core/compulsory
Organic Chemistry II	General and Inorganic Chemistry/General and Inorganic Chemistry Laboratory	Core/compulsory
	Mathematics	Core/compulsory
	Organic Chemistry I	Core/compulsory