FACULTY OF CHEMISTRY
Undergraduate programmes

BSc in Chemistry

www.ehu.eus
Would you like to live an international experience during your university studies? If so, the University of the Basque Country is an excellent choice.

Our university is the Basque Country’s largest higher education institution. Structured in three campuses - covering the three Basque territories - our community of students, lecturers and researchers aggregates 60,000 fellows.

 Ranked among the top 500 world universities, the University of the Basque Country is a multilingual institution where Spanish, Basque and English are equally spoken. After exhaustive assessment of our activity, we were accredited Campus of International Excellence by the Spanish Ministry of Education. Boosted by this recognition, we aspire to even higher goals: becoming one of Europe’s best.

If you are interested in building on your academic and professional qualifications, the University of the Basque Country can offer you a positive learning environment, optimal technical and human resources and above all the prestige of a university committed to excellence and innovation in teaching. Come and basque yourself.
The University of the Basque Country is structured in 3 campuses: the Campus of Araba, the Campus of Biscay and that of Gipuzkoa.

**Campus de Gipuzkoa**
It is composed of 9 Faculties and Schools; while the vast majority is located in Donostia-San Sebastián, we also have an Engineering Section in Eibar (40 km South-East from San Sebastián).

**Capital of Gipuzkoa**
Donostia-San Sebastián

**Population**
186,126 inhabitants

[www.donostia.eus](http://www.donostia.eus)
INTRODUCTION TO THE FACULTY

The Faculty of Chemistry of the University of the Basque Country was founded in 1975 to serve as reference centre in training professionals and in research, particularly with regard to polymer-based materials. Currently located in the Campus of Gipuzkoa (Donostia-San Sebastián), its academic and research activity covers the traditional disciplines of chemistry and its applications (physical chemistry, analytical chemistry, organic chemistry, inorganic chemistry, biochemistry, chemical engineering, polymer chemistry, environmental sciences) as well as other related fields.

Apart from the BSc in Chemistry, at the Faculty we offer several master’s programmes and doctoral studies, all with the Quality certificate of the Ministry of Education, where you can conduct your doctoral thesis work in one of the many active research groups.

In the field of research, the Faculty of Chemistry is an important producer of scientific content, averaging over 200 scientific publications yearly, making it one of the R+D+i players in the Basque Country with the greatest international visibility.

INFRASTRUCTURES

- 10 lecture rooms and 9 seminar rooms equipped with computer, video projector, audio system and internet.
- 19 research laboratories and 26 teaching laboratories.
- Major research equipment and instrument technology: NMR, X-ray diffraction, electronic microscopy...
- 2 computer rooms: one for teaching with 22 terminals and another for free student use, with 19 terminals.
- Study room and conference hall.
- Cafeteria, dining room and one fully equipped sitting and dining hall with microwave.
- Lockers for personal effects.

CONTACT

Faculty of Chemistry
3, Manuel Lardizabal promenade, 20018 Donostia-San Sebastián

Phone no.: +34 943 01 81 71
E-mail: quimicas.internacional@ehu.eus

www.ehu.eus/kimika-zientziak
MULTILINGUALISM
All degree subjects are imparted in Spanish and Basque and are available to exchange students. In addition, four subjects are taught in English, and while the number is currently small, it is progressively increasing. Visiting students are also offered the possibility of conducting an experimental laboratory project from 18 up to 60 credits in our laboratories, supervised in English by the faculty. In addition to this English-language offer, another 18 subjects are taught at the Faculty as English-Friendly Courses, meaning that while the subjects are taught in Spanish, tutorials and examinations can be conducted in English.

In addition to this English-language offer at our faculty, exchange students may request any of the 14 subjects offered in English in the other faculties of the Gipuzkoa Campus (http://www.ehu.eus/en/web/nazioarteko-harremanak/en-courses-taught-in-english-french), or the 15 master-level subjects taught at these faculties in English (http://www.ehu.eus/documents/2099555/7347919/MASTER_2017_18.pdf).

MOBILITY PROGRAMMES
The Faculty of Chemistry participates in various mobility programmes (SICUE, Erasmus+, TASSEP (USA and Canada), Latin America and Other Countries). It is therefore open to students from all over the world. Although the number of foreign students in undergraduate courses is still small, this number increases in the case of master students and even more in doctoral students. In fact, students from over twenty different countries and every continent have passed through our faculty.

Moreover, since 2017/2018, the Faculty of Chemistry has a dual undergraduate+master’s degree in cooperation with the Université de Strasbourg / Ecole européenne de Chimie, Polymères et Matériaux.

BUDDY PROGRAMME
A student from the University (buddy) will help you to prepare your stay before your arrival and throughout your first few days in the Basque Country. Your buddy will resolve your doubts about the city, transport, the Faculty, the operation of university services ... He or she will be your guide, facilitating your adaptation and integration.

LANGUAGE COURSES
The Vice-Rectorate for Coordination and International Relations offers language courses for visiting students, both in Spanish and Basque languages. These courses are free of charge for exchange students and, depending on your language level, you will be assigned to the group that suits you best: beginner, intermediate or advanced. In addition to courses every semester (60 hours), there is also an intensive Spanish course in summer before the academic year starts (45 hours).
BSc in CHEMISTRY

Field of Knowledge: Science

Chemistry is possibly the science that has contributed the most to our social well-being and quality of life over the last few decades. It is in each and every one of the areas of our lives: environment, health, power, the food industry, pharmaceutics, new materials, etc. It could almost be said that everything around us is chemistry, starting from what we eat and drink, through what we wear, up to what cures us.

In the Bachelor’s Degree in Chemistry, you will not only study the composition, synthesis, properties, behaviour and reactivity of matter, but you will also experiment and analyse hands-on.

You will have an option to major in the following specialties or career paths: “Macromolecules” and “Chemistry and Life Sciences”.

If you possess a capacity for observation and analysis, are interested in experimentation and manual work, have knowledge of English and mathematics, physics and chemistry and, in addition, are enthusiastic about working individually as well as in groups, you will be certain to like the degree in Chemistry.

This degree will prepare you to...

• Understand theoretical and practical aspects of chemistry
• Manipulate chemical materials safely and assess the hazards involved in the use of chemical substances and laboratory procedures
• Analyse and interpret experimental results and scientific data for decision-making
• Plan, develop, manage and control chemical processes and projects
• Develop skills in initiating research and working in new environments

Graduate studies available at the centre:

Four Master’s degrees are currently imparted at the Faculty of Chemistry:

• University Master in Chemistry and Polymers
• University Master in Nano-science
• University Master in Synthetic and Industrial Chemistry
• University Master in Theoretical Chemistry and Computational Modelling
## CURRICULUM

### FIRST YEAR  60 credits of basic subjects

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
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<tr>
<td>• Física (anual)</td>
<td>• Física (anual)</td>
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<tr>
<td>• Geología</td>
<td>• Biología</td>
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<tr>
<td>• Matemáticas I</td>
<td>• Matemáticas II y Estadística</td>
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<tr>
<td>• Operaciones Básicas de Laboratorio</td>
<td>• Metodología Experimental en Química</td>
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<tr>
<td>• Química General I</td>
<td>• Química General II</td>
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### SECOND YEAR  60 credits of compulsory subjects

- Bioquímica
- Experimentación en Química Física OR *Experiments in Physical Chemistry*
- Experimentación en Química Inorgánica OR *Experiments in Inorganic Chemistry*
- Experimentación en Química Orgánica OR *Experiments in Organic Chemistry*
- *Química Analítica I*
- *Química Física I*
- Química Inorgánica I
- *Química Orgánica I*

### THIRD YEAR  60 credits (48 of which in compulsory subjects + 12 in elective subjects)

<table>
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<th>Fall Semester</th>
<th>Spring Semester</th>
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| • Experimentación en Química Analítica (anual) OR *Experiments in Analytical Chemistry* | **Electives**
| • *Química Analítica II (anual)* | • *Métodos matemáticos para la química*
| • Química Física II (anual) | • Comunicación en Euskera: Ciencia y Tecnología
| • *Química Inorgánica II (anual)* | **Electives**
| • *Química Orgánica II (anual)* | • Norma y Uso de la Lengua Vasca
| • Identificación Espectrofotométrica de Compuestos Orgánicos (anual) OR *Spectrophotometric Identification of Organic Compounds* | **Electives**

### FOURTH YEAR  60 credits (12 of which in compulsory subjects + 30 in elective subjects + 18 in Final Year Project)

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<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
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| • Proyectos en Química Industrial (anual) | **Electives**
| • Ciencia de los Materiales | • Química y Tecnología Ambiental (M2)
| **Electives** | • Síntesis Orgánica y Biomoléculas (M2)
| • Catálisis y Bioorganometálicos (M2) | • Materiales Macromoleculares II: procesado (M1)
| • Química Biológica Aplicada (anual) (M2) | • Procesos industriales de polimerización (M1)
| • *Resolución de Problemas Analíticos en Biociencias (anual) (M2)* | **FINAL YEAR PROJECT** (available in English)
| • *Caracterización Química y Física de Macromoléculas (M1)* | **Electives**
| • Materiales Macromoleculares I: Propiedades y Aplicaciones (M1) | • Macromoléculas (M1)
| • Química Macromolecular (M1) | **Electives**

### MAJOR FIELDS OF STUDY

- Macromoléculas (M1)
- Química y Biociencias (M2)

*English Friendly Courses (EFC) are those degree subjects which, while being taught in Spanish, offer the subject programme, along with tutoring, diverse tasks, examinations, etc., in English*