

Polymers for advanced technologies 2nd year

Presentation



The course is devoted to functional polymers used in biomedical applications and fields linked to renewable energies, environment and sustainable development. This master program involves training in and through research in polymers and gives students possibility to work within a company through additional professional training.

Professionally speaking, the jobs available to students after the master programs lie in research and development laboratories of polymer producers (chemical industry) and in industries using polymers such as microelectronics, optoelectronics, fuel cells and batteries, biomedicine, cosmetics, energy storage and conversion and coatings.

The first year of the master in Chemistry leads to four master 2nd year's program : ChemTechCo, CLS, PTA and SOIPA. The different first semester courses offer a scientific knowledge in chemistry and its interfaces with life sciences and polymeric materials. During the course, the students will acquire the disciplinary skills vital for any type of chemist (in particular analytical methods, spectroscopy, experimental and bibliographic techniques, amongst others). By choosing the polymers courses, students inclined towards the functional polymers 2nd year program will also acquire knowledge in the synthesis of polymers with controlled architecture, and in the conformational and configurational analysis of polymers. These classes are supplemented by cross-disciplinary classes focused on languages and graduate employment and by a mandatory internship (from 2 to 5 months) which enables students to get to grips with working in a team, in an academic or industrial setting, in France or abroad.

This program's aims at giving students the necessary knowledge in polymer science, and at teaching them the novel methods of synthesis, design and characterization of polymer materials with specific properties.

Registration and scholarships

Access conditions

Second year master's degree : To be eligible to apply you should have completed, or be enrolled in a first year of a master program in Science and totalize 60 ECTS

Public continuing education : You are in charge of continuing education :

- if you resume your studies after 2 years of interruption of studies
- or if you followed training under the continuous training regime one of the previous 2 years
- or if you are an employee, job seeker, self-employed

If you do not have the diploma required to integrate the training, you can undertake a [validation of personal and professional achievements \(VAPP\)](#)

[skin.odf-uga:SKIN_ODF_CONTENT_PROGRAM_CANDIDATURE_LABEL](#)

Opening period : from 4th of march to 27th of march 2024 included with e-candidat

You want to apply and sign up for a course master ? Please be aware that the procedure differs depending on the diploma you want to take, the diploma you have already obtained and, for foreign students, your place of residence. Let us be your guide – simply follow this [link](#)

Expenses

UGA registration fees: 243€ + 100€ CVEC

Further studies

The proposed studies are of two types. Students who do not wish to do doctoral dissertations enter either directly into the labor market or follow a second master's degree in order to acquire transversal skills, often in a business school. Students from the training who wish to continue their studies with a thesis find thesis funding.

Practicals informations :

- > Component : UFR Chimie-Biologie
- > level : Bacalaureate +5
- > Duration : 1 year
- > Course type : Initial and Continuing Education
- > Location(s) : Grenoble - University campus

Contacts

Program director

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Administrative contact

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Program

Master 2nd year

Semester 9 P

UE Polymers for flexible electronics	6 ECTS
UE Biomaterials	6 ECTS
UE Nanostructured materials	3 ECTS
UE Degradation and sustainability	3 ECTS
UE Analysis, formulation and coatings	3 ECTS
UE Tools for investigating polymers	3 ECTS
UE Polymers for renewable energy sources	3 ECTS
UE Biobased polymers	3 ECTS

UE Outils de l'entreprise 3 ECTS

UE Outils pour l'ingénieur 3 ECTS

Semester 9 R

UE Polymers for flexible electronics 6 ECTS

UE Biomaterials 6 ECTS

UE Nanostructured materials 3 ECTS

UE Analysis, formulation and coatings 3 ECTS

UE Tools for investigating polymers 3 ECTS

UE Polymers for renewable energy sources 3 ECTS

UE Biobased polymers	3 ECTS
UE Bibliography	3 ECTS
1 option(s) to choose from 1	
UE Molecular modelling	3 ECTS
UE Green chemistry	3 ECTS
UE Degradation and sustainability	3 ECTS
1 option(s) to choose from 1	
UE Outils pour l'ingénieur	3 ECTS
UE Entrepreneurship and Sciences	3 ECTS

Semester 10 P

UE Internship	27 ECTS
1 option(s) to choose from 1	
UE Communication in scientific english (part II)	3 ECTS
UE ETC	3 ECTS

Semester 10 R

UE Internship	27 ECTS
1 option(s) to choose from 1	
UE Communication in scientific english (part II)	3 ECTS
UE ETC	3 ECTS
UE Internship 24 ects	24 ECTS
UE Ecole d'été - Graduate school EUR CBS	3 ECTS