Master in Chemistry

Master 2 Polymers for advanced technologies

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 2 programs: 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.

Objectives

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

Second year master's degree: to be eligible to apply you should have completed, or be enrolled in a first year of a Master programme in Science, and totalize 60 ETCS.

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).

Would you like to apply and register?
Be aware that the procedure differs depending on the diploma, the degree obtained, or the place of residence for foreign students.

Let yourself be guided by following this link:
http://www.univ-grenoble-alpes.fr/fr/grandes-missions/candidatures-et-inscriptions/

2 application campaigns are organized for the PTA Master 2

- Campaign 1 : Open campaign on e-candidate: From 01 to 19 April 2019 included
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.

Practical informations:

> School: UFR Chimie-Biologie
> Duration: 1 year
> Course type: Initial and Continuing Education
> Location(s): Grenoble - University campus
> Contacts:

Programme director
Rachel Auzely
Rachel.Auzely@cermav.cnrs.fr

Administrative contact
Chemistry-Biology Course Services
ufrchimiebiologie-formation@univ-grenoble-alpes.fr

Program

Master 2nd year

Semester 9

<table>
<thead>
<tr>
<th>UE</th>
<th>ECTS</th>
<th>Duration</th>
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<tbody>
<tr>
<td>UE Polymers for renewable energy sources and for flexible electronics</td>
<td>6</td>
<td>48h</td>
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<tr>
<td>UE Biomaterials and biobased polymers</td>
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<td>48h</td>
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<td>UE Nanostructured materials</td>
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<td>UE Degradation and sustainability</td>
<td>3</td>
<td>24h</td>
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<td>UE Analysis, formulation and coatings</td>
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<td>40h</td>
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<tr>
<td>UE Tools for investigating polymers</td>
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<td>34h</td>
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<td>40h</td>
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<tr>
<td>UE Tools for business</td>
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UE Internship 24 ECTS

UE Languages

Semester 10

UE Tools for engineers 3 ECTS 39h