

# Parcours Polymers for advanced technologies 2e année

Master Chimie



Niveau d'étude  
visé  
Bac +5



ECTS  
60 crédits



Durée  
1 an



Composante  
UFR Chimie-  
Biologie



Langue(s)  
d'enseignement  
Anglais

## Présentation



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 1st year's master in Chemistry leads to four master 2nd year 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's 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.

**Formation internationale** : Formation tournée vers l'international

## Dimension internationale

Internationally oriented courses : Students can follow the master with course entirely taught in English, in 1st and in 2nd year's master.


## Admission

## Conditions d'admission

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 ETCS.

Continuous education : Students fall under the continuous education scheme if they :


- go back to studies after an interruption of two years or more
- did follow a continuous education program during one of the two previous years
- are employees, independent entrepreneurs or registered as job seekers

In case you do not have the required diploma, you might initiate the accreditation of  personal and professional experience (VAPP).

## Candidature

**Recruitment campaign** : on e-candidate from

- **2th of march to 27th of march 2026**
- **30th of march to 17th of april 2026**
- **20th of april to 15th of may 2026**

You want to apply ? 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

## Droits de scolarité

UGA registration fees 2025 / 2026 : 254 € + 105 € CVEC

## Et après

## Poursuite d'études

Les poursuites d'études envisagées sont de deux types. Les étudiants qui ne souhaitent pas faire de thèse de doctorat entrent soit directement sur le marché du travail, soit suivent un deuxième master pour acquérir des compétences transverses, souvent dans une école de commerce. Les étudiants issus de la formation qui souhaitent poursuivre leurs études par une thèse trouvent un financement de thèse.

## Secteur(s) d'activité(s)

Le diplômé peut prétendre à des emplois de cadre technique ou cadre de recherche et développement dans le domaine public (laboratoires de recherches) ou privé (entreprises productrices ou utilisatrices de polymères) :

- Fabrication et production
- Recherche fondamentale ou appliquée, expérimentation en laboratoire ou sur le terrain
- Mise au point de techniques, installation, maintenance et vente d'appareillages
- Suivi et contrôle qualité
- Analyses
- Transmission du savoir, diffusion des connaissances, communication et animation scientifiques, enseignement

## Infos pratiques

### Contacts

Responsable pédagogique

Anna Dr Szarpak

✉ Anna.Szarpak@univ-grenoble-alpes.fr

Contact administratif


✉ ufrchimiebiologie-master-chimie@univ-grenoble-alpes.fr

### Lieu(x) ville

📍 Grenoble

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## Campus

 Grenoble - Domaine universitaire

# Programme

## Master 2e année

### Semestre 9 P

	Nature	CM	TD	TP	Crédits
UE Polymers for flexible electronics	UE	15h	9h		3 crédits
UE Nanostructured materials	UE	15h	9h		3 crédits
UE Degradation and sustainability	UE	15h	9h		3 crédits
UE Analysis, formulation and coatings	UE	15h	9h	16h	3 crédits
UE Tools for investigating polymers	UE	20h	14h		3 crédits
UE Polymers for renewable energy sources	UE	15h	9h		3 crédits
UE Biomaterials	UE	15h	9h		3 crédits
UE Biobased polymers	UE	15h	9h		3 crédits
UE Outils de l'entreprise	UE	36h			3 crédits
UE Outils et méthodes pour l'ingénieur	UE	19h	21h		3 crédits

### Semestre 9 R

	Nature	CM	TD	TP	Crédits
UE Polymers for flexible electronics	UE	15h	9h		3 crédits
UE Nanostructured materials	UE	15h	9h		3 crédits
UE Analysis, formulation and coatings	UE	15h	9h	16h	3 crédits
UE Tools for investigating polymers	UE	20h	14h		3 crédits
UE Polymers for renewable energy sources	UE	15h	9h		3 crédits
UE Biobased polymers	UE	15h	9h		3 crédits
UE Bibliography project	UE	15h			3 crédits
UE Biomaterials	UE	15h	9h		3 crédits
UE Outils et méthodes pour l'ingénieur	UE	19h	21h		3 crédits
UE Green chemistry	UE	36h			3 crédits
UE Molecular modelling	UE	12h	9h		3 crédits
UE Degradation and sustainability	UE	15h	9h		3 crédits

UE Entrepreneurship and Sciences

UE 14h 10h 3 crédits

## Semestre 10 P

	Nature	CM	TD	TP	Crédits
UE Stage	UE				24 crédits
UE Anglais	UE		24h		3 crédits
UE ETC	UE				3 crédits

## Semestre 10 R

	Nature	CM	TD	TP	Crédits
UE Stage	UE				24 crédits
UE Stage	UE				24 crédits
UE Ecole d'été - graduate school	EC				3 crédits
UE Anglais	UE		24h		3 crédits
UE ETC	UE				3 crédits