

GRENOBLE INP Pagora UGA

Master's Degree, One Year Graduate Program Biorefinery and Bio-based Materials

Bio2

Are you interested in the fields of biomass valorisation, biorefinery processes and in the production of biofuels as a replacement for fossil-based products? Do you also have an interest in the environment and sustainable development?

Have you completed at least 4 years of science-based higher education (chemistry, materials science or chemical engineering) and are you keen to study in France? Apply for the Biorefinery and Bio-based Materials Master's degree!

The Biorefinery and Bio-based Materials Master's program aims to train professionals specializing in the field of **biomass valorisation**, with a particular focus on the development of processes allowing its **transformation into bio-based materials, chemical products or energy sources**.

This program will help you to develop specific skills in the fields of chemistry, **process engineering** and polymerisation, but also in the areas of **production costs, environmental factors and energy consumption**. International companies in the **textile, packaging, energy, food and pharmaceutical sectors** have a particular need for these skills today.

TOPICS COVERED

- BIOREFINERY (CHEMICAL COMPONENTS OF PLANTS, POLYMER CHEMISTRY)
- BIOREFINERY FOR ENERGY (BIOETHANOL AND BIOMETHANE PRODUCTION, DIESTER PRODUCTION)
- BIOREFINERY FOR BIOPRODUCTS
- BIO-BASED MATERIALS (BIOPOLYMERS, COMPOSITES, NEW BIO-BASED MATERIALS)
- SUSTAINABILITY ASSESSMENT (ENVIRONMENTAL FACTORS, ENERGY CONSUMPTION)

TRAINING PROVIDED IN ENGLISH

DURATION

1-year, from Sept. to August

LOCATION

Grenoble, France

6-MONTH INTERNSHIP IN A COMPANY OR LABORATORY

with a minimum monthly stipend of
€600 if it takes place in France

SCHOLARSHIPS AVAILABLE

TUITION FEES

€254/year EU citizens
€3 941/year non EU-nationals

PROGRAM DESCRIPTION

The Biorefinery and Bio-based Materials master's program leads to an official qualification.

SEMESTER 9

- UNIT 1 Biorefinery for chemicals
- UNIT 2 Biorefinery for energy
- UNIT 3 Bio-based materials
- UNIT 4 Biomass purification and analytical techniques
- UNIT 5 Technico-Economical Project

SEMESTER 10

FINAL-YEAR 6-MONTH INTERNSHIP IN A COMPANY OR IN A LABORATORY

With a strong network of industrial and research partners, Grenoble INP - Pagora will assist each student to find a final-year internship (grant of around €600/month if it takes place in France).



INTERNATIONAL DIMENSION

Courses taught in English,
Opportunity to enrol on a double degree programme in collaboration with the following universities: KTH (Sweden), UPC (Spain) and UQTR (Quebec, Canada).

STUDENTS TESTIMONIES

Andjela, from Serbia | 2023

” I found this course in the area of bio-based materials, which I'm really interested in. That is one reason. And the second reason was finding out how many partnerships the school has with companies that I would really like to do internships with or work for.

Bedan, from Democratic Republic of the Congo | 2023

” The Biorefinery and Bio-based Materials Master's program at Pagora is one of the programs I was looking for that I could not find in most of schools in Europe. I also really fell in love with the city.

IN COLLABORATION WITH



PREREQUISITES

At least 4 years of science-based higher education or 1 year of graduate studies in materials science, chemistry, biochemistry, chemical engineering or polymeric materials

English language skills: level B1 minimum, level B2 strongly recommended, European standards

APPLY ONLINE

DEADLINE FOR SUBMITTING
THE APPLICATION

pagora.grenoble-inp.fr/en/education/master



CONTACT

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