esbs École supérieure de **biotechnologie** de Strasbourg
Université de Strasbourg

Master degree in **biotechnologies**

This master's degree focuses on the experimental and technological aspects of biotechnologies, and prepares students to thrive in a professional field with strong growth both regionally and internationally.

The objective of the master's program is to train scientific professionals capable of integrating into biotechnology sectors and contributing to their evolution.

SYNTHETIC BIOTECHNOLOGY

BIOTECHNOLOGY AND HIGH THROUGHPUT ANALYSIS

BIOPHARMACEUTICALS: DESIGN & PRODUCTION

The Ecole Supérieure de Biotechnologie de Strasbourg is a public Engineering school, part of the University of Strasbourg. It welcomes French and foreign students (holders of at least 120 ECTS) for a 2-year training. This master program in biotechnology takes place in a multicultural and multilingual environment.

ESBS offers an exceptional environment for studies. Ideally located at the heart of the Upper Rhine Valley region, the school benefits from a scientific and multicultural environment in particular thanks to the presence of cutting - edge laboratories and industries.

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esbs École supérieure de **biotechnologie** de Strasbourg
Université de Strasbourg

Master degree in **biotechnologies**

Synthetic Biotechnology
Program

Biotechnology and High Throughput Analysis
Program

Biopharmaceuticals: Design and Production
Program

SYNTHETIC BIOTECHNOLOGY
PROGRAM

20 vacancies.
Cooperation agrements with the University of Basel (Switzerland) and with the University of Freiburg (Germany).
Possibility is given for a double diploma (under condition) with the Master Degree in Biotechnology of the University of Freiburg (Germany).

Access and prerequisite

- **Bachelor graduates** (or equivalent) in biology, cellular and molecular biology, biochemistry, biology and chemistry, biophysics-chemistry.
- **Prerequisite** : basic bioinformatic, mathematic, molecular & cellular biology skills as well as knowledge in microbiology.

Job opportunities

- **Project Manager** in technologies / advanced engineering biology products (genome editing, biosensors, rapid promotion of DNA synthesis, chassis organism).
- **Consultant/Entrepreneur** in bioengineering.
- **Product Manager**.
- **R&D Executive**.

Skills to be acquired

- Development of scientific and/or experimental project in synthetic biology.
- Master design and implementation of synthetic biology devices.
- Interaction in a multidisciplinary context: biology, informatics, physics, chemistry.

Courses organization

- Teachings are mainly in English.
- Projects and practicals in Freiburg and Basel.
- 6 months of mandatory internship.
- Apprenticeship from the 2nd year.

Costs

- **School fees**: Please contact the registrar's office for more information.
- **Other costs**: social security, insurances, sport, etc...

Applications

- **From March to May** every year - Beginning of courses in September.
- **Online**: monmaster.gouv.fr
- **Foreign students**: Études en France - https://pastel.diplomatie.gouv.fr/etudesenfrance

Contact

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BIOTECHNOLOGY AND HIGH THROUGHPUT ANALYSIS
PROGRAM

20 vacancies.
Cooperation agrements with the University of Basel (Switzerland) and with the University of Freiburg (Germany).
Possibility is given for a double diploma (under condition) with the Master Degree in Biotechnology of the University of Freiburg (Germany).

Access and prerequisite

- **Bachelor graduates** (or equivalent) in biology, cellular and molecular biology, biochemistry, biology and chemistry, biophysics-chemistry.
- **Prerequisite**: molecular biology, statistical bio, bioinformatics, biophysics and mathematics skills.

Job opportunities

- **Executive** within a high-troughput experiemntation platform
- **Manager** of exprimental planning and data analysis.
- **Project Manager** "Big Data".
- **Engineer** in omics/screening/biodata platform.
- **Consultant** in high-throughput strategies implementation.

Skills to be acquired

- Master techniques for high-throughput experimentation and for treatments adapted to wide data streams.
- Master data processing tools.
- Development of a project based on high-throughput experimentation.

Courses organization

- Teachings are mainly in English.
- 6 months of mandatory internship.
- Apprenticeship from the 2nd year.

Costs

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Applications

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BIOPHARMACEUTICALS: DESIGN AND PRODUCTION
PROGRAM

20 vacancies.
Partnership with the Faculty of Pharmacy of Strasbourg.
ESBS and the Faculty of Pharmacy are located on the southern campus of Strasbourg in an exceptional scientific environment in the field of life science, chemistry and information science.

Access and prerequisite

- **Bachelor graduates** (or equivalent) in biology, cellular and molecular biology, biochemistry, biology and chemistry, biophysics-chemistry.
- **Prerequisite**: basic chemistry & biochemistry skills, knowledge in cellular and molecular biology.

Job opportunities

- **Executive** in **R&D** in pharmaceutical and bioindustries.
- **Project Manager**.
- **Researcher** (after a PhD) in academic research or in bioindustries.
- **Bioproduction Engineer**.

Skills to be acquired

- Master the knowledge of biotechnologies and be able to apply a scientific approach.
- Master the experimental methods of biotechnologies and use them for innovation purposes.
- Be able to take account of the specific constraints of the pharmaceutical sector.
- Master the techniques and tools of design, development, production of biomedicines and of information processing & interpretation.
- Be able to adapt to the demands of professionals and society.

Courses organization

- Teachings in French and in English.
- 6 months of mandatory internship.
- Apprenticeship from the 2nd year.

Costs

- **School fees**: Please contact the registrar's office for more information.
- **Other costs**: social security, insurances, sport, etc...

Applications

- **From March to May** every year - Beginning of courses in September.
- **Online**: monmaster.gouv.fr
- **Foreign students**: Études en France - https://pastel.diplomatie.gouv.fr/etudesenfrance

Contact

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