

Master degree in biotechnologies

This master's degree focuses on experimental and technological aspects of biotechnologies as well as on regulation and registration applied to pharmaceutical industry. Its aim is to train scientific actors able to integrate themselves into biotechnology sectors and to make them evolve.

SYNTHETIC
BIOLOGY
SPECIALTY



BIOTECHNOLOGY AND
HIGH THROUGHPUT ANALYSIS
SPECIALTY

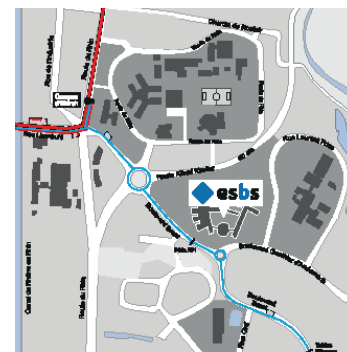


PHARMACEUTICAL
BIOTECHNOLOGY
SPECIALTY



The Ecole Supérieure de Biotechnologie de Strasbourg is a public Engineering school, part of University of Strasbourg. It welcomes French and foreign students (holders of at least 120 ECTS) for a 3-year training. This engineering 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 (Evolva, Roch, Merck Millipore, Sanofi, Transgène, Novartis, Lilly).



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Master degree in biotechnology



Synthetic Biology
Specialty

**Biotechnology and High
Throughput Analysis**
Specialty

Pharmaceutical Biotechnology
Specialty



SYNTHETIC BIOLOGY SPECIALTY

20 vacancies.
Cooperation agreements 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 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 and mathematic skills.

Job opportunities

- **Project Manager** in technologies / advanced engineering biology products (genome editing, biosensors, rapid promotion of DNA synthesis, chassis organism).
- **Consultant/contractor** in the field of biology engineering.
- **Product Manager**

Skills to be acquired

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

Courses organization

- Teachings are mainly in English
- Projects and practicals in Freiburg, Basel and Offenburg
- 6 months of mandatory internship / M2 available in apprenticeship



Costs

- **School fees** : 2019/2020 : Please contact the registrar's office
- **Other costs** : social security, insurances, sport, etc...

Applications

- **From March to Mai every year. Beginning of courses in September**
- **On line** : <https://ecandidat.unistra.fr>

Contact

- **Head of the specialty** : Coraline Rigouin ✉ rigouin@unistra.fr ☎ +33 (0)3 68 85 48 20



BIOTECHNOLOGY AND HIGH THROUGHPUT ANALYSIS SPECIALTY

20 vacancies
Cooperation agreements 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 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.

Job opportunities

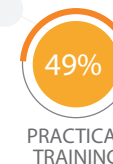
- **Executive** within a high-throughput experimentation platform.
- **Manager** of experimental planning and data analysis.
- **Project Manager** "Big Data".
- **Engineer** in omics/screening/biodata platform.
- **Consultant** in high-throughput strategies implementation.

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 in French and in English
- 6 months of mandatory internship / M2 available in apprenticeship



Costs

- **School fees** : 2019/2020 : Please contact the registrar's office
- **Other costs** : social security, insurances, sport, etc...

Applications

- **Starting in March**
- **On line** : <https://ecandidat.unistra.fr>

Contact

- **Head of the specialty** : Bruno Kieffer ✉ bruno.kieffer@unistra.fr ☎ +33 (0)3 88 65 32 00



PHARMACEUTICAL BIOTECHNOLOGY SPECIALTY

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 or information science.

Access and prerequisite

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

Job opportunities

- **Executive** in R&D in pharmaceutical and bio industries.
- **Manager** in regulatory affairs.
- **Quality Manager – Head pharmacist** (if double degree pharmacist-master)

Skills to be acquired

- Take into account specific constraints of pharmaceutical sector.
- Master techniques and tools of bio medicine design, development, production and analysis.
- Lead the registration and life cycle management of bio-medicines (as part of a double degree of pharmacist-master).
- Lead a quality assurance policy in compliance with regulations in the field of bio-medicines, bio-similars and diagnostic tools from biotechnologies.

Courses organization

- Teachings in French and in English
- 6 months of mandatory internship / M2 available in apprenticeship



Costs

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Applications

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- **On line** : <https://ecandidat.unistra.fr>

Contact

- **Head of the specialty** : Maria Zeniou ✉ zeniou@unistra.fr ☎ +33 (0)3 68 85 47 04