



Présentation

[Consulter la page du master 2 sur le site de l'Université Paris-Saclay](#)

Programme

Semestre 3

Refresher Courses

- Introduction to Biology
- Introduction to Mathematics and Computer Science for Biology

Core Modules

	17.5 ECTS
- Genome Engineering	3.5 ECTS
- Metabolic Engineering	3.5 ECTS
- Biosafety and Ethical Questions on Synthetic Biology	2 ECTS
- Synthetic Biology Practical Course	5 ECTS
- Biological Parts and Devices	3.5 ECTS

Elective Modules

- Choix 1	12.5 ECTS
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1 option(s) au choix parmi 11

- Computational Inference and Modeling of Biological Networks	2.5 ECTS
- Design of Experiments and Machine Learning in Synthetic	2.5 ECTS
- Network Systems : Modeling and Analysis	2.5 ECTS
- Environmental Biotech and Upstream Processing	2.5 ECTS
- Statistical Analysis of Large Scale Gene Expression Data	2.5 ECTS
- Chips for Molecular Evolution	2.5 ECTS
- Nanobiology	2.5 ECTS
- Rational Protein Engineering	2.5 ECTS
- Computational Protein Design	2.5 ECTS
- Cell Factory Design	2.5 ECTS
- Industrial Biotech and Downstream	2.5 ECTS
- Choix 2	

1 option(s) au choix parmi 11

- Computational Inference and Modeling of Biological Networks	2.5 ECTS
- Design of Experiments and Machine Learning in Synthetic	2.5 ECTS
- Network Systems : Modeling and Analysis	2.5 ECTS
- Environmental Biotech and Upstream Processing	2.5 ECTS
- Statistical Analysis of Large Scale Gene Expression Data	2.5 ECTS
- Chips for Molecular Evolution	2.5 ECTS

- Nanobiology	2.5 ECTS
- Rational Protein Engineering	2.5 ECTS
- Computational Protein Design	2.5 ECTS
- Cell Factory Design	2.5 ECTS
- Industrial Biotech and Downstream	2.5 ECTS
- Choix 3	

1 option(s) au choix parmi 11

- Computational Inference and Modeling of Biological Networks	2.5 ECTS
- Design of Experiments and Machine Learning in Synthetic	2.5 ECTS
- Network Systems : Modeling and Analysis	2.5 ECTS
- Environmental Biotech and Upstream Processing	2.5 ECTS
- Statistical Analysis of Large Scale Gene Expression Data	2.5 ECTS
- Chips for Molecular Evolution	2.5 ECTS
- Nanobiology	2.5 ECTS
- Rational Protein Engineering	2.5 ECTS
- Computational Protein Design	2.5 ECTS
- Cell Factory Design	2.5 ECTS
- Industrial Biotech and Downstream	2.5 ECTS
- Choix 5	

1 option(s) au choix parmi 11

- Computational Inference and Modeling of Biological Networks	2.5 ECTS
- Design of Experiments and Machine Learning in Synthetic	2.5 ECTS
- Network Systems : Modeling and Analysis	2.5 ECTS
- Environmental Biotech and Upstream Processing	2.5 ECTS
- Statistical Analysis of Large Scale Gene Expression Data	2.5 ECTS
- Chips for Molecular Evolution	2.5 ECTS
- Nanobiology	2.5 ECTS
- Rational Protein Engineering	2.5 ECTS
- Computational Protein Design	2.5 ECTS
- Cell Factory Design	2.5 ECTS
- Industrial Biotech and Downstream	2.5 ECTS
- Choix 4	

1 option(s) au choix parmi 11

- Computational Inference and Modeling of Biological Networks	2.5 ECTS
- Design of Experiments and Machine Learning in Synthetic	2.5 ECTS
- Network Systems : Modeling and Analysis	2.5 ECTS
- Environmental Biotech and Upstream Processing	2.5 ECTS
- Statistical Analysis of Large Scale Gene Expression Data	2.5 ECTS
- Chips for Molecular Evolution	2.5 ECTS
- Nanobiology	2.5 ECTS
- Rational Protein Engineering	2.5 ECTS
- Computational Protein Design	2.5 ECTS
- Cell Factory Design	2.5 ECTS

Semestre 4

Research Internship

30 ECTS

- Research Internship

30 ECTS