



## Présentation

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

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## Programme

### Semestre 3

<b>Elective Modules</b>	12.5 ECTS
- Choix 4	
5 option(s) au choix parmi 11	
- Network Systems : Modeling and Analysis	2.5 ECTS
- Statistical Analysis of Large Scale Gene Expression Data	2.5 ECTS
- Cell Factory Design	2.5 ECTS
- Environmental Biotech and Upstream Processing	2.5 ECTS
- Computational Inference and Modeling of Biological Networks	2.5 ECTS
- Industrial Biotech and Downstream	2.5 ECTS
- Chips for Molecular Evolution	2.5 ECTS
- Computational Protein Design	2.5 ECTS
- Design of Experiments and Machine Learning in Synthetic	2.5 ECTS
- Nanobiology	2.5 ECTS
- Rational Protein Engineering	2.5 ECTS
- Choix 1	
5 option(s) au choix parmi 11	
- Network Systems : Modeling and Analysis	2.5 ECTS
- Statistical Analysis of Large Scale Gene Expression Data	2.5 ECTS
- Cell Factory Design	2.5 ECTS
- Environmental Biotech and Upstream Processing	2.5 ECTS
- Computational Inference and Modeling of Biological Networks	2.5 ECTS
- Industrial Biotech and Downstream	2.5 ECTS
- Chips for Molecular Evolution	2.5 ECTS
- Computational Protein Design	2.5 ECTS
- Design of Experiments and Machine Learning in Synthetic	2.5 ECTS
- Nanobiology	2.5 ECTS
- Rational Protein Engineering	2.5 ECTS
- Choix 3	
5 option(s) au choix parmi 11	
- Network Systems : Modeling and Analysis	2.5 ECTS

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

5 option(s) au choix parmi 11	
- Network Systems : Modeling and Analysis	2.5 ECTS
- Statistical Analysis of Large Scale Gene Expression Data	2.5 ECTS
- Cell Factory Design	2.5 ECTS
- Environmental Biotech and Upstream Processing	2.5 ECTS
- Computational Inference and Modeling of Biological Networks	2.5 ECTS
- Industrial Biotech and Downstream	2.5 ECTS
- Chips for Molecular Evolution	2.5 ECTS
- Computational Protein Design	2.5 ECTS
- Design of Experiments and Machine Learning in Synthetic	2.5 ECTS
- Nanobiology	2.5 ECTS
- Rational Protein Engineering	2.5 ECTS
- Choix 2	

5 option(s) au choix parmi 11	
- Network Systems : Modeling and Analysis	2.5 ECTS
- Statistical Analysis of Large Scale Gene Expression Data	2.5 ECTS
- Cell Factory Design	2.5 ECTS
- Environmental Biotech and Upstream Processing	2.5 ECTS
- Computational Inference and Modeling of Biological Networks	2.5 ECTS
- Industrial Biotech and Downstream	2.5 ECTS
- Chips for Molecular Evolution	2.5 ECTS
- Computational Protein Design	2.5 ECTS
- Design of Experiments and Machine Learning in Synthetic	2.5 ECTS
- Nanobiology	2.5 ECTS
- Rational Protein Engineering	2.5 ECTS

<b>Core Modules</b>	17.5 ECTS
- Metabolic Engineering	3.5 ECTS
- Biosafety.Sociological Questions on Synthetic Biology	2 ECTS
- Synthetic Biology Practical Course	5 ECTS
- Biological Parts and Devices	3.5 ECTS
- Genome Engineering	3.5 ECTS

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### Refresher Courses

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

## Semestre 4

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<b>Research Internship</b>	30 ECTS
- Research Internship	30 ECTS