

- ▶ formation initiale
- ▶ formation continue



Présentation

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

Programme

Semestre 3

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|---------------------------------------------------------------|-----------|
| Elective Modules | 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 |

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| - 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 | |

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| 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 | |

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| 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 |

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| Core Modules | 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 |

Refresher Courses

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

Semestre 4

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|----------------------------|---------|
| Research Internship | 30 ECTS |
| - Research Internship | 30 ECTS |