



## Master of Science in Biology

### MICROBIOLOGY (MICROBIO)

**Academic contact:**

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| Code   | Course  | ECTS | Semesters<br>A/P/AN |
|--------|---|------|---------------------|
| 14B012 | Scientific Writing and Communication ( <b>mandatory</b> ) | 4    | A                   |
| 14B673 | Pré-stage equivalent to 320h (pre-internship)             | 16   | P                   |

#### Core courses (6-17 ECTS)

|  |   |   |          |
|--|---|---|----------|
| 14B672*                                      | Computer Skills for Biological Research | 4 | February |
| 14F001                                       | Elements of Bioinformatics              | 5 | A        |
| 14B063A*                                     | Microscopy and Imaging                  | 3 | A        |
| 14B057A (1)                                  | Statistics & Probability                | 3 | A        |
| 14B951* (1)                                  | Applied Statistics Practicum            | 2 | P        |
| (1) At least one of the 2 statistics courses |   |   |          |

#### MICROBIO Mandatory courses (16 ECTS)

|        |  |   |    |
|--------|--|---|----|
| 14B082 | Master course in Microbiology                | 8 | AN |
| 14B010 | Principles of Cellular and Molecular Biology | 8 | AN |

#### ELECTIVE COURSES (7-18 ECTS)

|          |   |   |    |
|----------|---|---|----|
| 14B026*  | Microbial ecology of alpine fresh water (practical training)  | 3 | P  |
| 14B041   | Microbial hydrobiology: Natural and built environment, ecological aspects and effects on climate change | 3 | P  |
| 14B641   | Microbial hydrobiology: Ecology of stratification (practical training)                                  | 4 | P  |
| 14B053   | Molecular microbiology of aquatic environments: Detection and typing of microorganisms                  | 3 | P  |
| 14B044*  | Electron Microscopy   | 4 | P  |
| 13B014*  | Microbiologie Générale II (Microbio Gén. I incompatible avec le planning)                               | 3 | P  |
| 13B013*  | Le système immunitaire  | 6 | AN |
| 223O508  | Les antibiotiques et la résistance bactérienne  | 3 | A  |
| 223O513* | Introduction à la recherche en virologie  | 3 | A  |
| 223O542* | Bactériophages et bactérie, une boîte à outils pour la biotechnologie et la médecine                    | 3 | P  |

**IMPORTANT: additional elective courses, not included in the list, can also be taken in agreement with the orientation coordinator.**

**60**

A = Autumn / P = Spring / AN = Annual

\* Lectures given in French

\* Pre-registration required with the courses instructor

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