

## MSc Life Science & Technology - TU Delft

### Master's Courses for Exchange Students

The course package proposals indicated here are composed taking into account the coherence of their contents. Overlap between lectures and exams of the courses within the same package is not likely, but may occur due to unforeseen circumstances leading to schedule modifications. The course package proposals are intended for MSc students and students in the process of finalizing their BSc programme.

Please read the courses' pre-requisites [here](#) in order to determine whether the courses you select are a good fit for your educational background. Please also note that the course offerings and time schedules may be subject to minor changes for the academic year 2024-2025.

### Academic Year 2024-2025

| Year 1 MSc Life Science & Technology          |   |          |        |   |   |   |
|---|---|----------|--------|---|---|---|
| Identifier                                    | Course name   | Credits  | Period |   |   |   |
|   |   |          | 1      | 2 | 3 | 4 |
| <b>General Mandatory Modules</b>              |   |          |        |   |   |   |
| <a href="#">LM3331</a>                        | Modelling and Computation for Life Science & Technology | 5 EC     |        |   |   |   |
| <a href="#">LM3341</a>                        | Microbial Omics   | 5 EC     |        |   |   |   |
| <a href="#">LM3451</a>                        | Bioprocess Integration                                  | 5 EC     |        |   |   |   |
| <a href="#">LM3561</a>                        | Ethical, Legal and Social Issues in Biotechnology       | 3 EC     |        |   |   |   |
| <a href="#">LM3822</a>                        | Design  | 12 EC    |        |   |   |   |
| <i>Specialization Cell Factory</i>            |   |          |        |   |   |   |
| <a href="#">LM3432</a>                        | Analysis of Metabolic Networks                          | 6 EC     |        |   |   |   |
| <a href="#">LM3442-A*</a>                     | Metabolic Reprogramming                                 | 3 EC     |        |   |   |   |
| <a href="#">LM3442-B**</a>                    | Metabolic Reprogramming                                 | 3 EC     |        |   |   |   |
| <a href="#">LM3601-A*</a>                     | Molecular Biotechnology & Genomics                      | 3 EC     |        |   |   |   |
| <a href="#">LM3601-B**</a>                    | Molecular Biotechnology & Genomics                      | 3 EC     |        |   |   |   |
| <i>Specialization Biocatalysis</i>            |   |          |        |   |   |   |
| <a href="#">LM3434</a>                        | Advanced Protein Chemistry and Analysis                 | 6 EC     |        |   |   |   |
| <a href="#">LM3701-A*</a>                     | Advanced Enzymology                                     | 3 EC     |        |   |   |   |
| <a href="#">LM3701-B**</a>                    | Advanced Enzymology                                     | 3 EC     |        |   |   |   |
| <a href="#">LM3731-A*</a>                     | Advanced Biocatalysis                                   | 3 EC     |        |   |   |   |
| <a href="#">LM3731-B**</a>                    | Advanced Biocatalysis                                   | 3 EC     |        |   |   |   |
| <i>Specialization Biochemical Engineering</i> |   |          |        |   |   |   |
| <i>Choice out of LM3432 or LM3611</i>         |   |          |        |   |   |   |
| <a href="#">LM3432</a>                        | Analysis of Metabolic Networks                          | 6 EC     |        |   |   |   |
| <a href="#">LM3611</a>                        | Microbial Community Engineering                         | 6 EC     |        |   |   |   |
| <a href="#">LM3741-A*</a>                     | Fermentation Technology & Environmental Biotechnology   | 3 EC     |        |   |   |   |
| <a href="#">LM3741-B**</a>                    | Fermentation Technology & Environmental Biotechnology   | 3 EC     |        |   |   |   |
| <a href="#">LM3751</a>                        | Transport & Separation                                  | 6 EC     |        |   |   |   |
| <b>Electives</b>                              |   |          |        |   |   |   |
| <a href="#">LM3311</a>                        | Green Chemistry & Sustainable Technology                | 3 EC     |        |   |   |   |
| <a href="#">LM3351</a>                        | Topics in Biotechnology - Theory                        | 3-5 EC   |        |   |   |   |
| <a href="#">LM3356</a>                        | Topics in Biotechnology - Practical                     | 10-12 EC |        |   |   |   |
| <a href="#">LM3581NB</a>                      | Metabolic Systems Biology                               | 3 EC     |        |   |   |   |
| <a href="#">LM3771</a>                        | Protein Engineering                                     | 3 EC     |        |   |   |   |

\*Part A of the specialisation courses is applicable for exchange students in the 1st semester, or for exchange students with an exchange duration of one year (they can continue with part B).

\*\*Part B of the specialisation courses can only be done after completion of part A.

NOTE: A list of preferred electives for each specialisation and the corresponding procedures for choosing electives are published on Brightspace, which is accessible with a TU Delft NetID or on demand through [info-1st@tudelft.nl](mailto:info-1st@tudelft.nl). Please also see the overview at the end of this document.

| Year 2 MSc Life Science & Technology |                                     |          |        |   |   |   |
|--------------------------------------|-------------------------------------|----------|--------|---|---|---|
| Identifier                           | Course name                         | Credits  | Period |   |   |   |
|                                      |                                     |          | 1      | 2 | 3 | 4 |
| LM3991                               | Research Project (BSc/MSc level)*** | 15-30 EC |        |   |   |   |

\*\*\*A (small) Research Project at one of our groups within the Faculty of Applied Sciences. It is possible to combine the Research Project with courses. The course code of the Research project is LM3991. A Research Project of 24 EC can be finalized before Christmas. Please do notice that an early termination of a TU Delft housing rental contract is not possible.

Please note that in case you intend to do the Design project: research work should preferably be scheduled in period 3; period 4 has a tight schedule and leaves room for research 1 day/week adjacent to the Design project.

The study guide of the MSc Life Science and Technology can be found [here](#). More information on the programme can be found on [this webpage](#).

Please note that the course offerings and time schedules may be subject to modifications.

We do not recommend to mix courses from various programmes and/or faculties since this will likely lead to scheduling conflicts and overlap. Such scheduling conflicts are the responsibility of the student.

Students who are planning to do a research project are strongly encouraged to take a proactive role in finding a supervisor and research project within the Biotechnology department. The first step is to find a scientific contact person within the Faculty of Applied Sciences (maybe someone you have already been in contact with, or are planning to collaborate with) and get direct approval from the professor of the group in which you wish to do your research. In most cases you will work under the supervision of a PhD student and their professor. Before applying to any of our two annual exchange periods, ideally you will already have arranged a project yourself or you are in the process of doing so. Please mention the actions you have taken in your application as well.

In special cases, we may assist you in finding a supervisor for the research project after the application deadline, but as mentioned earlier, we expect you to take the lead.

More information about the departments of the Faculty of Applied Sciences can be found on [this page](#).

When contacting our academic staff for the first time, we recommend you to include the following information in your e-mail:

- Why you have chosen for TU Delft and the respective department
- That you are an exchange student from a TUD partner university, registered through the International Office Applied Sciences.
- The research area/topic you are interested in and why
- A resume covering your experiences and personal details
- A transcript of records