

**Double bachelor programme Applied Mathematics and Technische Natuurkunde 24/25**

**B1 (cohort 2024/2025)**

| Course code                         | Name  | Coord. | Lang-<br>uage | EC          |
|-------------------------------------|---|--------|---------------|-------------|
| <b>Semester 1 (Sem 1)</b>           |   |        |               | <b>7,0</b>  |
| 202300095                           | <a href="#">Lab Course</a>                              | TN     | NL            | 4,0         |
| 202300096                           | <a href="#">Programming and Dataprocessing</a>          | TN     | NL            | 3,0         |
| <b>Quartile 01 (1A)</b>             |   |        |               | <b>17</b>   |
| 202200141                           | <a href="#">Linear Structures 1</a>                     | AM     | EN            | 5,0         |
| 202200143                           | <a href="#">Analysis 1</a>                              | AM     | EN            | 5,0         |
| 202100094                           | <a href="#">Dynamics and Relativity</a>                 | TN     | NL            | 4,5         |
| 202000675                           | <a href="#">Project Dynamics and Relativity</a>         | TN     | EN            | 2,5         |
| <b>Quartile 02 (1B)</b>             |   |        |               | <b>18</b>   |
| 202200236                           | <a href="#">Linear Structures 2</a>                     | AM     | EN            | 4,0         |
| 202200237                           | <a href="#">Analysis 2</a>                              | AM     | EN            | 6,0         |
| 202000677                           | <a href="#">Thermodynamics</a>                          | TN     | EN            | 4,0         |
| 202000680                           | <a href="#">Project Thermodynamics</a>                  | TN     | NL            | 4,0         |
| <b>Quartile 03 (2A)</b>             |   |        |               | <b>19</b>   |
| 202001344                           | <a href="#">Probability Theorie</a>                     | AM     | EN            | 5,0         |
| 202001343                           | <a href="#">Signals and Transforms</a>                  | AM     | EN            | 5,0         |
| 202300196                           | <a href="#">Modeling 2 + Project AP</a>                 | AM     | EN            | 5,0         |
| 202000683                           | <a href="#">Instrumentation</a>                         | TN     | NL            | 4,0         |
| <b>Quartile 04 (2B)</b>             |   |        |               | <b>19</b>   |
| 202200241                           | <a href="#">Numerical Mathematics</a>                   | AM     | EN            | 5,0         |
| 202200242                           | <a href="#">Differential Equations</a>                  | AM     | EN            | 5,0         |
| 202000687                           | <a href="#">Quantum Matter</a>                          | TN     | NL            | 5,0         |
| 202000688                           | <a href="#">Geometrical Optics</a>                      | TN     | NL            | 2,5         |
| 202200097                           | <a href="#">Project Engineering Systems<sup>1</sup></a> | TN     | NL            | 1,5         |
| <b>Total EC first academic year</b> |   |        |               | <b>80,0</b> |

<sup>1</sup> Part of 202000688 Engineering Systems TN Mod04

**B2 (cohort 2023/2024)**

| Course code                          | Name  | Coord. | Lang-<br>uage | EC          |
|--------------------------------------|---|--------|---------------|-------------|
| <b>Quartile 05 (1A)</b>              |   |        |               | <b>20,5</b> |
| 202300016                            | <a href="#">Mathematical Statistics 1</a>                   | AM     | EN            | 7,0         |
| 202300017                            | <a href="#">Analysis 3</a>                                  | AM     | EN            | 5,0         |
| 202400597                            | <a href="#">Models</a>                                      | TN     | EN            | 4,5         |
| 202000694                            | <a href="#">Classical Mechanics</a>                         | TN     | EN            | 4,0         |
| <b>Quartile 06 (1B)</b>              |   |        |               | <b>20,0</b> |
| 202200094                            | <a href="#">Quantum Mechanics 1</a>                         | TN     | EN            | 5,0         |
| 202001485                            | <a href="#">Optics Theory</a>                               | TN     | EN            | 4,5         |
| 202300063                            | <a href="#">Optics Practicals</a>                           | TN     | EN            | 2,5         |
| 202200095                            | <a href="#">Hilbertruimte</a>                               | TN     | EN            | 3,0         |
| 202300027                            | <a href="#">Linear Optimization</a>                         | AM     | EN            | 5,0         |
| <b>Quartile 07 (2A)</b>              |   |        |               | <b>19,5</b> |
| 202000701                            | <a href="#">Introduction Solid State Physics</a>            | TN     | NL            | 7,0         |
| 202001362                            | <a href="#">Algebra</a>                                     | AM     | EN            | 3,5         |
| 202000702                            | <a href="#">Statistical Physics</a>                         | TN     | NL            | 6,0         |
| 202300116                            | <a href="#">Introduction to Electrodynamics<sup>2</sup></a> | TN     | EN            | 3,0         |
| <b>Quartile 08 (2B)</b>              |   |        |               | <b>21,0</b> |
| 202300023                            | <a href="#">Fluid Physics Theory</a>                        | TN     | EN            | 4,5         |
| 202300024                            | <a href="#">Fluid Physics Practicals</a>                    | TN     | EN            | 2,5         |
| 202200336                            | <a href="#">Markov Chains</a>                               | AM     | EN            | 4,0         |
| 202000706                            | <a href="#">Electrodynamics</a>                             | TN     | EN            | 6,0         |
| 202200337                            | <a href="#">Stochastic Models</a>                           | AM     | EN            | 4,0         |
| <b>Total EC second academic year</b> |   |        |               | <b>81,0</b> |

<sup>2</sup> Part of 202000682 Electromagnetics TN Mod03

**B3 (cohort 2022/2023)**

| Course code                  | Name  | Coord. | Lang-<br>uage | EC          |
|------------------------------|---|--------|---------------|-------------|
|                              | <b>Quartile 09 (1A)</b>                           |        |               | <b>20</b>   |
|                              | Minor Quartile 09                                 |        |               | 15          |
| -                            | Free electives <sup>5</sup>                       |        |               | 5           |
|                              | <b>Quartile 10 (1B)</b>                           |        |               | <b>20</b>   |
| 202001485                    | Minor Quartile 10                                 | TN     | EN            | 15          |
| -                            | Free electives <sup>5</sup>                       |        |               | 5           |
|                              | <b>Quartile 11 (2A)</b>                           |        |               | <b>19,0</b> |
| 202300067                    | <a href="#">Preperation Bachelor's assignment</a> | TN     | NL            | 3,0         |
| 202300068                    | <a href="#">Statistics in Scientific Research</a> | TN     | NL            | 2,0         |
| 202400632                    | <a href="#">Introduction to PDE</a>               | AM     |               | 4,0         |
|                              | <b>Master oriëntation elective AM</b>             | AM     |               | <b>5,0</b>  |
|                              | <b>Electives AP</b>                               |        |               | <b>5,0</b>  |
|                              |   |        |               | 2,5/        |
| 202100223                    | <a href="#">Computational Physics</a>             | AP     | EN            | 5,0         |
|                              |   |        |               | 2,5/        |
| 202100225                    | <a href="#">Remote Control of Experiments</a>     | AP     | EN            | 5,0         |
| 202000710                    | <a href="#">Material Science</a>                  | TN     | EN            | 5,0         |
|                              |   |        |               | 3,0/        |
| 202100224                    | <a href="#">Machine Learning</a>                  | AP     | EN            | 5,0         |
| 202001413                    | <a href="#">Soft Matter Physics</a>               | AP     | EN            | 5,0         |
| 202000711                    | <a href="#">Technical Optics</a>                  | TN     | EN            | 5,0         |
|                              | <b>Quartile 12 (2B)</b>                           |        |               | <b>20,0</b> |
| 201500405                    | <a href="#">Complex Function Theory</a>           | AM     | EN            | 3,0         |
| 202400348                    | <a href="#">Reflection 3</a>                      | AM     | EN            | 2,0         |
| 202001433                    | <a href="#">Bachelor's Assignment AM-AP</a>       |        |               | 15,0        |
|                              | <i>General Aspects (50%)</i>                      |        |               | 7,5         |
|                              | <i>Scieintific Aspects (50%)</i>                  |        |               | 7,5         |
| Total EC third academic year |   |        |               | <b>79,0</b> |

<sup>5</sup> Elective courses at M-level. In case of doubt, consult the study advisor