

## Bachelor Applied Physics (TN) programme 2019/2020

Students of other programmes can participate in Applied Physics courses/module(part)s. The bachelor's programme Applied Physics is a Dutch-taught programme. However, some courses/module(part)s are taught in English and therefore non-Dutch students can participate in these parts. See also [Courses Applied Physics](#) and [Request participating courses TN](#).

([NL](#) | [EN](#))

### First year Bachelor TN

| Quarter   | Module Code      | Name Module                                       | Language | Weight | EC          |
|-----------|------------------|---------------------------------------------------|----------|--------|-------------|
| <b>1A</b> | <b>201800157</b> | <b>TN MOD01 Dynamics and Relativity</b>           |          |        | <b>15,0</b> |
|           |                  | Dynamics and Relativity (Snoeiijer)               | NL       | 35%    | (5,0)       |
|           |                  | Calculus 1 (Pehlivan)                             | EN       | 30%    | (4,0)       |
|           |                  | Laboratory Practice 1 (van Veldhoven)             | NL       | 10%    | (1,5)       |
|           |                  | Programming and Data Processing 1 (Kanger)        | NL       | 10%    | (2,0)       |
|           |                  | Project (Marin/Tel)                               | EN/NL    | 15%    | (2,5)       |
|           |                  | <b>Module Coordinator: Jacco Snoeiijer</b>        |          |        |             |
| <b>1B</b> | <b>201800158</b> | <b>TN MOD02 Thermodynamics</b>                    |          |        | <b>15,0</b> |
|           |                  | Thermodynamics (Vanapalli)                        | EN/NL    | 30%    | (4,0)       |
|           |                  | Calculus 2 (Polderman)                            | EN       | 25%    | (4,0)       |
|           |                  | Laboratory Practice 2 (van Veldhoven)             | NL       | 10%    | (2,0)       |
|           |                  | Programming and Data Processing 2 (Kanger)        | NL       | 10%    | (1,0)       |
|           |                  | Project (ter Brake/Tel)                           | EN/NL    | 25%    | (4,0)       |
|           |                  | <b>Module Coordinator: Marcel ter Brake</b>       |          |        |             |
| <b>2A</b> | <b>201700164</b> | <b>TN MOD03 Electromagnetism and Measurements</b> |          |        | <b>15,0</b> |
|           |                  | Electricity and Magnetism (Boller)                | EN       | 35%    | (5,0)       |
|           |                  | Vector Calculus (v.d. Vegt)                       | EN       | 15%    | (2,0)       |
|           |                  | Instrumentation (Vanapalli)                       | EN/NL    | 25%    | (4,0)       |
|           |                  | Analytical Programming (Verschuur)                | EN       | 10%    | (1,0)       |
|           |                  | Project (Dhalle/Tel)                              | EN       | 15%    | (3,0)       |
|           |                  | <b>Module Coordinator: Herman Offerhaus</b>       |          |        |             |
| <b>2B</b> | <b>201700165</b> | <b>TN MOD04 Quantum and Geometrical Optics</b>    |          |        | <b>15,0</b> |
|           |                  | Quantum Matter (Brinkman)                         | NL       | 35%    | (5,0)       |
|           |                  | Linear Algebra (Craig)                            | EN NL    | 20%    | (3,0)       |
|           |                  | Geometrical Optics (Kanger)                       | EN/NL    | 15%    | (2,5)       |
|           |                  | Engineering Systems (Lemay)                       |          | 30%    | (4,5)       |
|           |                  | <b>Module Coordinator: Alexander Brinkman</b>     |          |        |             |

## Bachelor Applied Physics (TN) programme 2019/2020

Students of other programmes can participate in Applied Physics courses/module(part)s. The bachelor's programme Applied Physics is a Dutch-taught programme. However, some courses/module(part)s are taught in English and therefore non-Dutch students can participate in these parts. See also [Courses Applied Physics](#) and [Request participating courses TN](#).

([NL](#) | [EN](#))

### Second year Bachelor TN

| Quarter   | Module Code      | Name Module                                         | Language | Weight | EC          |
|-----------|------------------|-----------------------------------------------------|----------|--------|-------------|
| <b>1A</b> | <b>201800159</b> | <b>TN MOD05 Signals, Models and Systems</b>         |          |        | <b>15,0</b> |
|           |                  | 1 out of 2:                                         |          | 27%    | (4,0)       |
|           |                  | Classical Mechanics (Filippi)                       | EN       |        |             |
|           |                  | Engineering Solid Mechanics (Schilder)              | EN       |        |             |
|           |                  | Signals (Lemay)                                     | EN       | 27%    | (4,0)       |
|           |                  | Models (Wormeester)                                 | EN       | 27%    | (4,0)       |
|           |                  | Project (Verschuur)                                 | EN       | 19%    | (3,0)       |
|           |                  | <b>Module Coordinator: Cornelse Vreman-de Olde</b>  |          |        |             |
| <b>1B</b> | <b>201500155</b> | <b>TN MOD06 Waves, Interference and Probability</b> |          |        | <b>15,0</b> |
|           |                  | Optics (Offerhaus)                                  | EN       | 47%    | (7,0)       |
|           |                  | Quantum Mechanics (Brinkman)                        | EN       | 40%    | (6,0)       |
|           |                  | Hilbert Space (v. Damme)                            | EN       | 13%    | (2,0)       |
|           |                  | <b>Module Coordinator: Hans Kanger</b>              |          |        |             |
| <b>2A</b> | <b>201600067</b> | <b>TN MOD07 Condensed Matter Physics</b>            |          |        | <b>15,0</b> |
|           |                  | Introduction to Solid State Physics (v. Houselt)    | NL       | 47%    | (7,0)       |
|           |                  | Statistical Physics (Mugele)                        | NL       | 40%    | (6,0)       |
|           |                  | Partial Differential Equations (Geurts)             | EN       | 13%    | (2,0)       |
|           |                  | <b>Module Coordinator: Stefan Kooij</b>             |          |        |             |
| <b>2B</b> | <b>201600068</b> | <b>TN MOD08 Continuum Dynamics</b>                  |          |        | <b>15,0</b> |
|           |                  | Fluid Physics (v.d. Meer)                           | EN       | 47%    | (7,0)       |
|           |                  | Electrodynamics (Brocks)                            | EN       | 40%    | (6,0)       |
|           |                  | Numerical Methods for PDE (Geurts)                  | EN       | 13%    | (2,0)       |
|           |                  | <b>Module Coordinator: Devaraj van der Meer</b>     |          |        |             |

## Bachelor Applied Physics (TN) programme 2019/2020

Students of other programmes can participate in Applied Physics courses/module(part)s. The bachelor's programme Applied Physics is a Dutch-taught programme. However, some courses/module(part)s are taught in English and therefore non-Dutch students can participate in these parts. See also [Courses Applied Physics](#) and [Request participating courses TN](#).

([NL](#) | [EN](#))

## Bachelor Applied Physics (TN) programme 2019/2020

Students of other programmes can participate in Applied Physics courses/module(part)s. The bachelor's programme Applied Physics is a Dutch-taught programme. However, some courses/module(part)s are taught in English and therefore non-Dutch students can participate in these parts. See also [Courses Applied Physics](#) and [Request participating courses TN](#).

([NL](#) | [EN](#))

### Third year Bachelor TN

| Quartile  | Module name                                                                                                                                                                                                        | Language | weight | EC          |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------|-------------|
| <b>1A</b> | <b>Minor</b>                                                                                                                                                                                                       |          |        | <b>15,0</b> |
|           | (In the first quartile the course <i>Voorbereiding Bacheloropdracht (5 EC)</i> of last year's module 11 (Orientation module) is taught for students who start their Bachelor's assignment in the second quartile.) |          |        |             |
| <b>1B</b> | <b>Minor</b>                                                                                                                                                                                                       |          |        | <b>15,0</b> |
| <b>2A</b> | <b>Orientation module</b>                                                                                                                                                                                          |          |        | <b>15,0</b> |
|           | 10 EC electives out of:                                                                                                                                                                                            |          |        | (10,0)      |
|           | - 191420131 Materials Science (Brinkman)                                                                                                                                                                           | EN       | -      | (5,0)       |
|           | - 191440201 Technical Optics (Boller)                                                                                                                                                                              | EN       | -      | (5,0)       |
|           | - 191407051 Intro. to Instrumentation Computers (Veugeliers)                                                                                                                                                       | EN       | -      | (2,5/5)     |
|           | - 201700176 Computational Physics 1 (Filippi)                                                                                                                                                                      | EN       | -      | (2,5)       |
|           | - 201700177 Computational Physics 2 (Filippi)                                                                                                                                                                      | EN       | -      | (2,5)       |
|           | - 201800482 Machine Learning (Van Damme)                                                                                                                                                                           | EN       | -      | (3,0/5,0)   |
|           | 201700178 Voorbereiding Bacheloropdracht (Kooij)                                                                                                                                                                   | NL       | -      | (5,0)       |
|           | <b>Module coordination: bachelor programme TN</b>                                                                                                                                                                  |          |        |             |
| <b>2B</b> | <b>201500316 TN MOD12 Bacheloropdracht<sup>2)</sup></b>                                                                                                                                                            |          |        | <b>15,0</b> |
|           | Algemene aspecten                                                                                                                                                                                                  | EN/NL    | 50%    | (7,5)       |
|           | Fysische aspecten                                                                                                                                                                                                  | EN/NL    | 50%    | (7,5)       |
|           | <b>Module Coordination: Bachelor programme TN</b>                                                                                                                                                                  |          |        |             |