

## Curriculum High-Tech Engineering 2019-2020

### First year (60 EC) \*

#### ME Obligatory core courses (11 EC)

Physics for Mechanical Engineers (4 EC)

Measurement Technology (3 EC)

Nonlinear Mechanics (4 EC)

#### ME Recommended courses ( $\geq 5$ EC obligatory)

Advanced Fluid Dynamics (5 EC)

Advanced Heat Transfer (3 EC)

Control System Design (3 EC)

Drive & Energy Systems (3EC)

Intelligent Vehicles (4 EC)

#### ME Recommended social courses (3-6 EC obligatory)

Philosophy of Engineering (3 EC)\*\*

#### ME-HTE Core courses I (3 EC)

Intro lab PME (2 EC)

Student colloquia and events PME (1 EC)

#### ME-HTE Core courses II (19-27 EC) choose 5 out of 7

Engineering Dynamics (4 EC)

Optics (4 EC)

Mechatronic System Design (4 EC)

Precision Mechanism Design (4 EC)

Fundamentals of Mechanical Analysis (4 EC)

Micro- & Nanosystems Design & Fabrication, including MEMS Lab (4 EC)

Engineering Optimization: Concept & Applications (3 EC)

#### ME-HTE Recommended electives per research focus (6-11 EC)

*Engineering Dynamics (ED)*

Nonlinear Dynamics (4 EC)

Experimental Dynamics (3 EC)

*Mechatronics System Design (MSD)*

Predictive Modelling (3 EC)

Compliant Mechanisms (4 EC)

*Opto-Mechatronics (OM)*

Opto-Mechatronics (4 EC)

Technical & Micro Optical Systems (4 EC)

*Micro Nano Engineering (MNE)*

Intro to Nanoscience and Technology (3 EC)

Manufacture for the micro- nano scale (3 EC)

*Engineering Mechanics (EM)*

Computational Methods (3 EC)

Stability of Thin-Walled Structures (4 EC)

Advanced Finite Elements (4 EC)

#### Other electives (5-13 EC)

### Second year (60 EC)

Internship/ First Project (15 EC)

Literature survey (10 EC)

Master thesis project (35 EC)

\*tentative, minor changes possible, \*\* or other, see ME Obligatory, [studiegids.tudelft.nl](http://studiegids.tudelft.nl)