

## Curriculum Advanced Technology 2014/2015

### First year (B1) – cohort 2014

| Course code | Block | Module name               | Study load (EC) |
|-------------|-------|---------------------------|-----------------|
| 201300119   | B1.1A | Man & machine             | 15              |
| 201300147   | B1.1B | Thermodynamics            | 15              |
| 201300159   | B1.2A | Fundamentals of Materials | 15              |
| 201300160   | B1.2B | Dynamics                  | 15              |
| Total       |       |                           | 60              |

### Second year (B2) – cohort 2013

| Course code | Block | Module name                           | Study load (EC) |
|-------------|-------|---------------------------------------|-----------------|
| 201400157   | B2.1A | Signals, Modelling and Systems        | 15              |
| 201400158   | B2.1B | Materials Engineering                 | 15              |
| 201400159   | B2.2A | Fields and Waves                      | 15              |
| 201400160   | B2.2B | System Engineering & Entrepreneurship | 15              |
| Total       |       |                                       | 60              |

### Third year (B3) – cohorts 2012 and earlier

| Course code   | Module/course name     | SL (EC) | Block |
|---|------------------------|---------|-------|
| <b>Specialisation Programme (30 EC, depends on master of choice)*</b> |                        |         |       |
| Master admission modules (check master admission matrix)              |                        | 30,0    |       |
| <b>Electives (free choice 15 EC)*</b>                                 |                        |         |       |
| Elective subjects   |                        | 15,0    |       |
| <b>Final Assignment (15 EC)</b>                                       |                        |         |       |
| <i>Final Assignment (1 of 2 – 15 EC)</i>                              |                        |         |       |
| 193999010   | Bachelor Assignment AT | 15,0    | 2B    |
| 193999028   | Internship**           | 15,0    | 2B    |
| Total   |                        | 60,0    |       |

\* Depending on master choice and interest the student chooses the two 15 EC modules required for admission. 15 EC is free choice (either as a module or as separate courses, as long as these courses are still available).

\*\* The internship is an option for students that don't continue with a master program. It provides an opportunity to gain experience in an industry setting.

### Third year (B3) AT courses and Modules

| Course code                              | Course name | SL (EC) | Block |
|--|-------------|---------|-------|
| <b>Courses and Modules offered by AT</b> |             |         |       |
| <i>Science module</i>                    |             |         |       |
| 201200179                                | Science     | 15,0    | 1A    |

### Module coordinators

|           |  |
|-----------|--|
| 201300119 | Man & machine – Gijs Krijnen   |
| 201300147 | Thermodynamics – Marcel ter Brake                                    |
| 201300159 | Fundamentals of Materials – Gertjan Koster                           |
| 201300160 | Dynamics – Ruud van Damme  |
| 201400157 | Signals, Systems and Modelling – Herbert Wormeester/Jeroen Verschuur |
| 201400158 | Materials Engineering – Mark Huijben                                 |
| 201400159 | Fields and Waves – Michel de Jong                                    |
| 201400160 | System Engineering & Entrepreneurship – to be announced              |
| 201200179 | Science – Alexander Brinkman   |

**Second year (B2) discontinued courses**

These courses were taught last in the academic year 2013/2014. The last exams will be in 2014/2015.

| Course code | Course name                                     | Study load (EC) |
|-------------|---|-----------------|
| 193902010   | Engineering of Complex Systems I                | 5               |
| 193902030   | Engineering of Complex Systems II               | 5               |
| 193902410   | Mathematical Modeling                           | 5               |
| 193902320   | Modeling of Physical Systems                    | 5               |
| 193902210   | Project III – Lab on a Chip                     | 5               |
| 193902220   | Project IV – Startrix                           | 5               |
| 191560380   | Differential Equations                          | 5               |
| 194111700   | Long Term Development of Science and Technology | 5               |
| 191211730   | Electronic Basic Circuits and Functions         | 5               |
| 193902810   | Interfaces and Catalysis                        | 5               |
| 193902610   | Production Technology                           | 5               |
| 193902710   | Molecular and Cellular Biophysics               | 5               |
| 193902910   | Vibrations and Waves                            | 5               |
| 193902020   | Basic Chemistry                                 | 5               |

**Third year (B3) discontinued AT courses and modules**

These courses were taught last in either the academic year 2013/2014 or 2014/2015. The last exams will be in 2014/2015 or 2015/2016 respectively.

| Course code               | Course name   | SL (EC) | Block |
|---------------------------|---|---------|-------|
| <i>Engineering module</i> |   |         |       |
| 201200176                 | Systems and Control for Mechatronics **   | 5,0     | 1A    |
| 201200177                 | Manufacturing Systems and Technical Drawing *   | 5,0     | 1A    |
| 201300153                 | Manufacturing Systems **  | 3,0     | 1A+1B |
| 201300154                 | Technical Drawing **  | 2,0     | 1A    |
| 201200178                 | Introduction to the Finite Element Method for AT **   | 5,0     | 1A    |
|                           | * discontinued after 2012/2013; replaced by 201300153 + 201300154   |         |       |
|                           | ** discontinued after 2013/2014; last exam opportunities 2014/2015  |         |       |
| <i>Materials module</i>   |   |         |       |
| 201200179                 | Materials Science and Engineering<br>(Discontinued after 2013/2014; last exam opportunities 2014/2015)<br>(Contents moved to AT module 6 (B2.1B)) | 15,0    | 1B    |

Note: the transitional arrangements for the discontinued courses are under discussion.