Applied Physics and Electrical Engineering - International, M Sc in Engineering

300 credits
Civilingenjör i teknisk fysik och elektroteknik - internationell
6CYYI
Valid from: 2015 Spring semester

Determined by
Board of Studies for Electrical Engineering, Physics and Mathematics

Date determined
Degree in Swedish

Civilingenjör 300 hp och Teknologie master 120 hp
## Curriculum

### Semester 4 (Spring 2017)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAOP07</td>
<td>Introduction to Optimization</td>
<td>6</td>
<td>G1X</td>
<td>3</td>
<td>M</td>
</tr>
<tr>
<td>TMME32</td>
<td>Mechanics, second course</td>
<td>4</td>
<td>G1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TSEA28</td>
<td>Computer Hardware and Architecture Y</td>
<td>6*</td>
<td>G1X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>TGTU63</td>
<td>Visits to Industry</td>
<td>1*</td>
<td>G1X</td>
<td>-</td>
<td>V</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TATA57</td>
<td>Transform Theory</td>
<td>4</td>
<td>G1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>TFYA13</td>
<td>Electromagnetic Field Theory</td>
<td>8</td>
<td>G2X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>THTY42</td>
<td>German for Engineers II, part 2</td>
<td>2</td>
<td>G1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TPTE06</td>
<td>Industrial Placement</td>
<td>6</td>
<td>G1X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>TSEA28</td>
<td>Computer Hardware and Architecture Y</td>
<td>6*</td>
<td>G1X</td>
<td>3</td>
<td>M</td>
</tr>
<tr>
<td>TGTU63</td>
<td>Visits to Industry</td>
<td>1*</td>
<td>G1X</td>
<td>-</td>
<td>V</td>
</tr>
</tbody>
</table>

### Semester 5 (Autumn 2017)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAMS24</td>
<td>Statistics, First Course</td>
<td>4</td>
<td>G2X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TDDC76</td>
<td>Programming and Data Structures</td>
<td>8*</td>
<td>G2X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>TFYA43</td>
<td>Nanotechnology</td>
<td>6</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDDC76</td>
<td>Programming and Data Structures</td>
<td>8*</td>
<td>G2X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>TFYA12</td>
<td>Thermodynamics and Statistical</td>
<td>6</td>
<td>G2X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>Mechanics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSDT18</td>
<td>Signals and Systems</td>
<td>6</td>
<td>G2X</td>
<td>3</td>
<td>M</td>
</tr>
</tbody>
</table>
## Semester 6 (Spring 2018)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFYA73</td>
<td>Modern Physics I</td>
<td>4</td>
<td>G2X</td>
<td>3</td>
<td>M</td>
</tr>
<tr>
<td>TFYA75</td>
<td>Applied Physics - Bachelor Project</td>
<td>16*</td>
<td>G2X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>TSEA56</td>
<td>Electronics Engineering - Bachelor Project</td>
<td>16*</td>
<td>G2X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSRT12</td>
<td>Automatic Control</td>
<td>6</td>
<td>G2X</td>
<td>1</td>
<td>M</td>
</tr>
</tbody>
</table>

**Period 2**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAMS14</td>
<td>Probability, first course</td>
<td>4</td>
<td>G1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TSEA01</td>
<td>Industrial Economics, Basic Course</td>
<td>6</td>
<td>G1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA74</td>
<td>Modern Physics II</td>
<td>4</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFYA75</td>
<td>Applied Physics - Bachelor Project</td>
<td>16*</td>
<td>G2X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>TSEA56</td>
<td>Electronics Engineering - Bachelor Project</td>
<td>16*</td>
<td>G2X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>TSKS10</td>
<td>Signals, Information and Communication</td>
<td>4</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
</tbody>
</table>

## Semester 7 (Autumn 2018)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAMS32</td>
<td>Stochastic Processes</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TAMS46</td>
<td>Probability Theory, Second Course</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TAOP34</td>
<td>Large Scale Optimization</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TATA34</td>
<td>Real Analysis, Honours Course</td>
<td>6*</td>
<td>G2X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TATA55</td>
<td>Abstract Algebra</td>
<td>6*</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TATM85</td>
<td>Functional Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TBME04</td>
<td>Anatomy and Physiology</td>
<td>6</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TBM19</td>
<td>Medical Information Systems</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TDDC17</td>
<td>Artificial Intelligence</td>
<td>6</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TDDD38</td>
<td>Advanced Programming in C++</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TDTS06</td>
<td>Computer Networks</td>
<td>6</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TDTS08</td>
<td>Advanced Computer Architecture</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFFM08</td>
<td>Experimental Physics</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFFY54</td>
<td>Quantum Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFEK59</td>
<td>Fundamentals of Chemistry</td>
<td>6</td>
<td>G1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>Course code</td>
<td>Course name</td>
<td>Credits</td>
<td>Level</td>
<td>Timetable module</td>
<td>EMV</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>------------------</td>
<td>-----</td>
</tr>
<tr>
<td>TFYA18</td>
<td>Mathematical Methods of Physics</td>
<td>6</td>
<td>A1X</td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>TFYA43</td>
<td>Nanotechnology</td>
<td>6</td>
<td>G2X</td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>TFYA77</td>
<td>Fundamentals in Materials Science</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA88</td>
<td>Additive Manufacturing: Tools, Materials and Methods</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>THTY18</td>
<td>German for Engineers III</td>
<td>6*</td>
<td>G2X</td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>TPPE17</td>
<td>Corporate Finance</td>
<td>6</td>
<td>G2X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSBB06</td>
<td>Multidimensional Signal Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSBB08</td>
<td>Digital Image Processing</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSDT14</td>
<td>Signal Theory</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSFS09</td>
<td>Modelling and Control of Engines and Drivelines</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSKS01</td>
<td>Digital Communication</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSKS15</td>
<td>Detection and Estimation of Signals</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSRT62</td>
<td>Modelling and Simulation</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSTE12</td>
<td>Design of Digital Systems</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSTE86</td>
<td>Digital Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TMS17</td>
<td>Statistical Theory, advanced course</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TMS22</td>
<td>Probability Theory and Bayesian Networks</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TMS38</td>
<td>Experimental Design and Biostatistics</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TAOP04</td>
<td>Mathematical Optimization</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TATA34</td>
<td>Real Analysis, Honours Course</td>
<td>6*</td>
<td>G2X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TATA55</td>
<td>Abstract Algebra</td>
<td>6*</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TATA71</td>
<td>Ordinary Differential Equations and Dynamical Systems</td>
<td>6</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TATM85</td>
<td>Functional Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TBME03</td>
<td>Biochemistry and Cell Biology</td>
<td>6</td>
<td>G2X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TBM119</td>
<td>Medical Information Systems</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TBM010</td>
<td>Biomedical Signal Processing</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TDDD38</td>
<td>Advanced Programming in C++</td>
<td>6*</td>
<td>A1X</td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>TEE05</td>
<td>Resource Theory</td>
<td>6</td>
<td>G1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFFM08</td>
<td>Experimental Physics</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFY70</td>
<td>Physics of Condensed Matter part I</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>Course code</td>
<td>Course name</td>
<td>Credits</td>
<td>Level</td>
<td>Timetable module</td>
<td>EMV</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>------------------</td>
<td>-----</td>
</tr>
<tr>
<td>TFYA20</td>
<td>Surface Physics</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TFYA39</td>
<td>Semiconductor Technology</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TFYA60</td>
<td>Astronomy and Geophysics</td>
<td>6</td>
<td>G1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TFYA90</td>
<td>Computational Physics</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TGTU04</td>
<td>Leadership</td>
<td>6</td>
<td>G2X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TGTU49</td>
<td>History of Technology</td>
<td>6</td>
<td>G1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>THTY18</td>
<td>German for Engineers III</td>
<td>6*</td>
<td>G2X</td>
<td>-</td>
<td>M</td>
</tr>
<tr>
<td>TKMJ24</td>
<td>Environmental Engineering</td>
<td>6</td>
<td>G1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TMHL03</td>
<td>Mechanics of Light Structures</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TMKM90</td>
<td>Engineering Materials - Deformation and Fracture</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TMMS07</td>
<td>Biomechanics</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TMMV18</td>
<td>Fluid Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TMMV54</td>
<td>Computational Heat Transfer</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TPPE29</td>
<td>Financial Markets and Instruments</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSBB06</td>
<td>Multidimensional Signal Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSBB09</td>
<td>Image Sensors</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSEA81</td>
<td>Computer Engineering and Real-time Systems</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSEK02</td>
<td>Radio Electronics</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSEK37</td>
<td>Analog CMOS Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSFS02</td>
<td>Vehicle Dynamics and Control</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSFS09</td>
<td>Modelling and Control of Engines and Drivelines</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSI02</td>
<td>Internetworking</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSIT02</td>
<td>Computer Security</td>
<td>6</td>
<td>G2X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSKS01</td>
<td>Digital Communication</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSKS11</td>
<td>Networks: Models, Algorithms and Applications</td>
<td>6</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSRT78</td>
<td>Digital Signal Processing</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>
### Specialisation: Applied Mathematics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAMS32</td>
<td>Stochastic Processes</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>TAMS46</td>
<td>Probability Theory, Second Course</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TAOP34</td>
<td>Large Scale Optimization</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TATA55</td>
<td>Abstract Algebra</td>
<td>6*</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TATM85</td>
<td>Functional Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>TFFY18</td>
<td>Mathematical Methods of Physics</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSKS15</td>
<td>Detection and Estimation of Signals</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>

#### Period 2

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAOP04</td>
<td>Mathematical Optimization</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TATA55</td>
<td>Abstract Algebra</td>
<td>6*</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TATA71</td>
<td>Ordinary Differential Equations and Dynamical Systems</td>
<td>6</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TATM85</td>
<td>Functional Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
</tbody>
</table>

### Specialisation: Applied Physics - Materials and Nano Physics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFFM08</td>
<td>Experimental Physics</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>TFFY54</td>
<td>Quantum Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>TFYA43</td>
<td>Nanotechnology</td>
<td>6</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
</tbody>
</table>

#### Period 2

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFFM08</td>
<td>Experimental Physics</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>TFFY70</td>
<td>Physics of Condensed Matter part I</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>TFYA20</td>
<td>Surface Physics</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TFYA39</td>
<td>Semiconductor Technology</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
</tbody>
</table>
**Specialisation: Applied physics - Theory, Modelling and Computation**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TATA75</td>
<td>Theory of Relativity</td>
<td>6*</td>
<td>A1X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>TFFY54</td>
<td>Quantum Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>TFWY18</td>
<td>Mathematical Methods of Physics</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>M</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TATA75</td>
<td>Theory of Relativity</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TFFY70</td>
<td>Physics of Condensed Matter part I</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA90</td>
<td>Computational Physics</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
</tbody>
</table>

**Specialisation: Biomedical Engineering**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBME04</td>
<td>Anatomy and Physiology</td>
<td>6</td>
<td>G2X</td>
<td>3</td>
<td>M</td>
</tr>
<tr>
<td>TBMI19</td>
<td>Medical Information Systems</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSDT14</td>
<td>Signal Theory</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBME03</td>
<td>Biochemistry and Cell Biology</td>
<td>6</td>
<td>G2X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TBMI19</td>
<td>Medical Information Systems</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TBMT01</td>
<td>Biomedical Signal Processing</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
</tbody>
</table>
## Specialisation: Communication

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDT506</td>
<td>Computer Networks</td>
<td>6</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TS014</td>
<td>Signal Theory</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>TSK501</td>
<td>Digital Communication</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TSK515</td>
<td>Detection and Estimation of Signals</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSE02</td>
<td>Radio Electronics</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TS016</td>
<td>Internetworking</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSK501</td>
<td>Digital Communication</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TSK511</td>
<td>Networks: Models, Algorithms and Applications</td>
<td>6</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSRT78</td>
<td>Digital Signal Processing</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>

## Specialisation: Control and Information Systems

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS014</td>
<td>Signal Theory</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TS016</td>
<td>Modelling and Control of Engines and Drivelines</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSK515</td>
<td>Detection and Estimation of Signals</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSRT62</td>
<td>Modelling and Simulation</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>M</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSE081</td>
<td>Computer Engineering and Real-time Systems</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>TS02</td>
<td>Vehicle Dynamics and Control</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSRT78</td>
<td>Digital Signal Processing</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
</tbody>
</table>
## Specialisation: Electronics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSKS01</td>
<td>Digital Communication</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TSTE12</td>
<td>Design of Digital Systems</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSTE86</td>
<td>Digital Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
</tbody>
</table>

### Period 2

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSEK02</td>
<td>Radio Electronics</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSEK37</td>
<td>Analog CMOS Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>TSKS01</td>
<td>Digital Communication</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
</tbody>
</table>

## Specialisation: Financial Mathematics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAMS32</td>
<td>Stochastic Processes</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>TAMS46</td>
<td>Probability Theory, Second Course</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TATM85</td>
<td>Functional Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TPPE17</td>
<td>Corporate Finance</td>
<td>6</td>
<td>G2X</td>
<td>4</td>
<td>M</td>
</tr>
</tbody>
</table>

### Period 2

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAOP04</td>
<td>Mathematical Optimization</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TATM85</td>
<td>Functional Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TPPE29</td>
<td>Financial Markets and Instruments</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>
### Specialisation: Mechatronics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Period 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMMV11</td>
<td>Fluid Mechanics and Heat Transfer</td>
<td>6</td>
<td>G2X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSFS09</td>
<td>Modelling and Control of Engines and Drivelines</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSRT62</td>
<td>Modelling and Simulation</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td><strong>Period 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSEA81</td>
<td>Computer Engineering and Real-time Systems</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TSFS02</td>
<td>Vehicle Dynamics and Control</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSFS09</td>
<td>Modelling and Control of Engines and Drivelines</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSRT78</td>
<td>Digital Signal Processing</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>

### Specialisation: Signal and Image Processing

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Period 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSBB06</td>
<td>Multidimensional Signal Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>TSBB08</td>
<td>Digital Image Processing</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TSDT14</td>
<td>Signal Theory</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td><strong>Period 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSBB06</td>
<td>Multidimensional Signal Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>M</td>
</tr>
<tr>
<td>TSBB09</td>
<td>Image Sensors</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TSRT78</td>
<td>Digital Signal Processing</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
</tbody>
</table>
### Specialisation: System-on-Chip

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Period 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDTS06</td>
<td>Computer Networks</td>
<td>6</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSKS01</td>
<td>Digital Communication</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSTE12</td>
<td>Design of Digital Systems</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>M</td>
</tr>
<tr>
<td>TSTE86</td>
<td>Digital Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td><strong>Period 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSEA81</td>
<td>Computer Engineering and Real-time Systems</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSEK37</td>
<td>Analog CMOS Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSKS01</td>
<td>Digital Communication</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
</tbody>
</table>

### Semester 8 (Spring 2019)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Period 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TANA15</td>
<td>Numerical Linear Algebra</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TATA27</td>
<td>Partial Differential Equations</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TATA53</td>
<td>Linear Algebra, Honours Course</td>
<td>6*</td>
<td>G2X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>TATA54</td>
<td>Number Theory</td>
<td>6*</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TATA66</td>
<td>Fourier and Wavelet Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TATA78</td>
<td>Complex Analysis, second course</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TBMI01</td>
<td>Medical Decision Support</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TBMI03</td>
<td>Medical Information Models and Ontologies</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TBMI26</td>
<td>Neural Networks and Learning Systems</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TBMT02</td>
<td>Medical Imaging</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TBMT09</td>
<td>Physiological Pressures and Flows</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TDDD76</td>
<td>Software Engineering Project</td>
<td>8*</td>
<td>G2X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TDDE09</td>
<td>Natural Language Processing</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TDT507</td>
<td>System Design and Methodology</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TEAE04</td>
<td>Industrial Economics and Organisation</td>
<td>6</td>
<td>G1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TEIO94</td>
<td>Entrepreneurship and Idea Development</td>
<td>6*</td>
<td>G2X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>Course code</td>
<td>Course name</td>
<td>Credits</td>
<td>Level</td>
<td>Timetable module</td>
<td>EMV</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>------------------</td>
<td>-----</td>
</tr>
<tr>
<td>TFFM40</td>
<td>Analytical Methods in Materials Science</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFYA04</td>
<td>Materials Optics</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TFYA21</td>
<td>Physical Metallurgy</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TFYA25</td>
<td>Physics of Condensed Matter part II</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA36</td>
<td>Chaos and Non-Linear Phenomena</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFYA71</td>
<td>Cosmology</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFYA85</td>
<td>Alternative Energy Sources and their Applications</td>
<td>6</td>
<td>G2X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TGTU01</td>
<td>Technology and Ethics</td>
<td>6</td>
<td>G1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TGTU91</td>
<td>Oral and Written Communication</td>
<td>6</td>
<td>G1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TKMJ10</td>
<td>Industrial Ecology</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TKMJ15</td>
<td>Environmental Management Strategies</td>
<td>6</td>
<td>G1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TMMS30</td>
<td>Multi Body Dynamics and Robotics</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TNM048</td>
<td>Information Visualisation</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TPPE32</td>
<td>Financial Risk Management</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSBB15</td>
<td>Computer Vision</td>
<td>12*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSBB15</td>
<td>Computer Vision</td>
<td>12*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSBK07</td>
<td>Computer Graphics</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSBK08</td>
<td>Data Compression</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSEK06</td>
<td>VLSI Design</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSEK38</td>
<td>Radio Frequency Transceiver Design</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSFS04</td>
<td>Electrical Drives</td>
<td>6</td>
<td>G2X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSKS13</td>
<td>Wireless Communications</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSRT07</td>
<td>Industrial Control Systems</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSTE08</td>
<td>Analog and Discrete-Time Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSTE14</td>
<td>Analog Filters</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSTE93</td>
<td>Analog Circuits</td>
<td>6*</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
</tbody>
</table>

**Period 2**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANA31</td>
<td>Computational Methods for Ordinary and Partial</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td></td>
<td>Differential Equations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAOP24</td>
<td>Optimization, Advanced Course</td>
<td>6</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TAOP87</td>
<td>Applied Optimization Project Course</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TATA27</td>
<td>Partial Differential Equations</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TATA53</td>
<td>Linear Algebra, Honours Course</td>
<td>6*</td>
<td>G2X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>Course code</td>
<td>Course name</td>
<td>Credits</td>
<td>Level</td>
<td>Timetable module</td>
<td>EMV</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>------------------</td>
<td>-----</td>
</tr>
<tr>
<td>TATA54</td>
<td>Number Theory</td>
<td>6*</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TATA66</td>
<td>Fourier and Wavelet Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TATA78</td>
<td>Complex Analysis, second course</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TBME08</td>
<td>Biomedical Modeling and Simulation</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TBMT26</td>
<td>Technology in Intensive Care and Surgery</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TDDC78</td>
<td>Programming of Parallel Computers - Methods and Tools</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TDDD12</td>
<td>Database Technology</td>
<td>6</td>
<td>G2X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TDDD76</td>
<td>Software Engineering Project</td>
<td>8*</td>
<td>G2X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TEAE13</td>
<td>Civil and Commercial Law</td>
<td>6</td>
<td>G1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TEIE44</td>
<td>Intellectual Property Rights</td>
<td>4</td>
<td>G1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TEIO94</td>
<td>Entrepreneurship and Idea Development</td>
<td>6*</td>
<td>G2X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TFMM40</td>
<td>Analytical Methods in Materials Science</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFMT19</td>
<td>Chemical Sensor Systems</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TFYA19</td>
<td>Quantum Computers</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TFYA36</td>
<td>Chaos and Non-Linear Phenomena</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA38</td>
<td>Optoelectronics</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TFYA41</td>
<td>Thin Film Physics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA71</td>
<td>Cosmology</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TGTU83</td>
<td>Philosophy of Science</td>
<td>6</td>
<td>G1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TKMJ29</td>
<td>Resource Efficient Products</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TNMD079</td>
<td>Modelling and Animation</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TPPE33</td>
<td>Portfolio Management</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSBB15</td>
<td>Computer Vision</td>
<td>12*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSBB15</td>
<td>Computer Vision</td>
<td>12*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSBK02</td>
<td>Image and Audio Coding</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSBK07</td>
<td>Computer Graphics</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSEK06</td>
<td>VLSI Design</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSEK12</td>
<td>Test of Analog/Mixed Signal Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSFS03</td>
<td>Vehicle Propulsion Systems</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSFS06</td>
<td>Diagnosis and Supervision</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSFS11</td>
<td>Electrical and Energy Technology</td>
<td>6</td>
<td>G2X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSKS14</td>
<td>Multiple Antenna Communications</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>Course code</td>
<td>Course name</td>
<td>Credits</td>
<td>Level</td>
<td>Timetable module</td>
<td>EMV</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>------------------</td>
<td>-----</td>
</tr>
<tr>
<td>TSKS16</td>
<td>Signal Processing for Communications</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSRT14</td>
<td>Sensor Fusion</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSTE06</td>
<td>Digital Filters</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSTE87</td>
<td>Application-Specific Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSTE93</td>
<td>Analog Circuits</td>
<td>6*</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
</tbody>
</table>

**Specialisation: Applied Mathematics**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANA15</td>
<td>Numerical Linear Algebra</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>TATA27</td>
<td>Partial Differential Equations</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TATA66</td>
<td>Fourier and Wavelet Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TAOP24</td>
<td>Optimization, Advanced Course</td>
<td>6</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TATA27</td>
<td>Partial Differential Equations</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TATA66</td>
<td>Fourier and Wavelet Analysis</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA19</td>
<td>Quantum Computers</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
</tbody>
</table>

**Specialisation: Applied Physics - Materials and Nano Physics**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFFM40</td>
<td>Analytical Methods in Materials Science</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>TFYA04</td>
<td>Materials Optics</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TFYA21</td>
<td>Physical Metallurgy</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TFYA25</td>
<td>Physics of Condensed Matter part II</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFFM40</td>
<td>Analytical Methods in Materials Science</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>TFMT19</td>
<td>Chemical Sensor Systems</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TFYA38</td>
<td>Optoelectronics</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TFYA41</td>
<td>Thin Film Physics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>
### Specialisation: Applied physics - Theory, Modelling and Computation

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TATA27</td>
<td>Partial Differential Equations</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TBM126</td>
<td>Neural Networks and Learning Systems</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA21</td>
<td>Physical Metallurgy</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TFYA25</td>
<td>Physics of Condensed Matter part II</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA36</td>
<td>Chaos and Non-Linear Phenomena</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFYA71</td>
<td>Cosmology</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSBK07</td>
<td>Computer Graphics</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TATA27</td>
<td>Partial Differential Equations</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TFYA19</td>
<td>Quantum Computers</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TFYA36</td>
<td>Chaos and Non-Linear Phenomena</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA71</td>
<td>Cosmology</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSBK07</td>
<td>Computer Graphics</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
</tbody>
</table>

### Specialisation: Biomedical Engineering

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBMI01</td>
<td>Medical Decision Support</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TBMI03</td>
<td>Medical Information Models and Ontologies</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TBMI26</td>
<td>Neural Networks and Learning Systems</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TBMT02</td>
<td>Medical Imaging</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>M</td>
</tr>
<tr>
<td>TBMT09</td>
<td>Physiological Pressures and Flows</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBME08</td>
<td>Biomedical Modeling and Simulation</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TBMT26</td>
<td>Technology in Intensive Care and Surgery</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
</tbody>
</table>
### Specialisation: Communication

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSBK08</td>
<td>Data Compression</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSEK38</td>
<td>Radio Frequency Transceiver Design</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSKS13</td>
<td>Wireless Communications</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TFYA19</td>
<td>Quantum Computers</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSBK02</td>
<td>Image and Audio Coding</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSKS14</td>
<td>Multiple Antenna Communications</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSKS16</td>
<td>Signal Processing for Communications</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
</tbody>
</table>

### Specialisation: Control and Information Systems

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSRT07</td>
<td>Industrial Control Systems</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDDC78</td>
<td>Programming of Parallel Computers - Methods and Tools</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TDDD12</td>
<td>Database Technology</td>
<td>6</td>
<td>G2X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>TSFS06</td>
<td>Diagnosis and Supervision</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSRT14</td>
<td>Sensor Fusion</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>
### Specialisation: Electronics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSEK06</td>
<td>VLSI Design</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>TSEK38</td>
<td>Radio Frequency Transceiver Design</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSTE08</td>
<td>Analog and Discrete-Time Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>M</td>
</tr>
<tr>
<td>TSTE14</td>
<td>Analog Filters</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSTE93</td>
<td>Analog Circuits</td>
<td>6*</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSEK06</td>
<td>VLSI Design</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>TSEK12</td>
<td>Test of Analog/Mixed Signal Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSKS16</td>
<td>Signal Processing for Communications</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSTE06</td>
<td>Digital Filters</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSTE87</td>
<td>Application-Specific Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>TSTE93</td>
<td>Analog Circuits</td>
<td>6*</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
</tbody>
</table>

### Specialisation: Financial Mathematics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAMS29</td>
<td>Stochastic Processes Applied to Financial Models</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>M</td>
</tr>
<tr>
<td>TANA15</td>
<td>Numerical Linear Algebra</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>TPPE32</td>
<td>Financial Risk Management</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAOP24</td>
<td>Optimization, Advanced Course</td>
<td>6</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TPPE33</td>
<td>Portfolio Management</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>
### Specialisation: Mechatronics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMMS30</td>
<td>Multi Body Dynamics and Robotics</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSFS04</td>
<td>Electrical Drives</td>
<td>6</td>
<td>G2X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSRT07</td>
<td>Industrial Control Systems</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>

**Period 2**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSFS03</td>
<td>Vehicle Propulsion Systems</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSFS06</td>
<td>Diagnosis and Supervision</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSRT14</td>
<td>Sensor Fusion</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>

### Specialisation: Signal and Image Processing

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBMI26</td>
<td>Neural Networks and Learning Systems</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TBMT02</td>
<td>Medical Imaging</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TDDE09</td>
<td>Natural Language Processing</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TNMO48</td>
<td>Information Visualisation</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSBB15</td>
<td>Computer Vision</td>
<td>12*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSBB15</td>
<td>Computer Vision</td>
<td>12*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSBK07</td>
<td>Computer Graphics</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSBK08</td>
<td>Data Compression</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>

**Period 2**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSBB15</td>
<td>Computer Vision</td>
<td>12*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSBB15</td>
<td>Computer Vision</td>
<td>12*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSBK02</td>
<td>Image and Audio Coding</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSBK07</td>
<td>Computer Graphics</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSRT14</td>
<td>Sensor Fusion</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>
### Specialisation: System-on-Chip

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Period 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDT507</td>
<td>System Design and Methodology</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>TSBK07</td>
<td>Computer Graphics</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSEK06</td>
<td>VLSI Design</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>TSTE08</td>
<td>Analog and Discrete-Time Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td><strong>Period 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEIE44</td>
<td>Intellectual Property Rights</td>
<td>4</td>
<td>G1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSBK07</td>
<td>Computer Graphics</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSEK06</td>
<td>VLSI Design</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>TSKS16</td>
<td>Signal Processing for Communications</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSTE06</td>
<td>Digital Filters</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSTE87</td>
<td>Application-Specific Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>

### Semester 9 (Autumn 2019)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Period 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAMS39</td>
<td>Multivariate Statistical Methods</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TATA32</td>
<td>Discrete Mathematics</td>
<td>8*</td>
<td>G1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TATA62</td>
<td>Project - Applied Mathematics</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TATA75</td>
<td>Theory of Relativity</td>
<td>6*</td>
<td>A1X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>TBMT14</td>
<td>Biomedical Engineering - Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TBMT36</td>
<td>Biomedical Optics</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TDDC88</td>
<td>Software Engineering</td>
<td>12*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFKE59</td>
<td>Fundamentals of Chemistry</td>
<td>6</td>
<td>G1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA17</td>
<td>Advanced Project Work in Applied Physics</td>
<td>6*</td>
<td>A1X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>TFYA40</td>
<td>Analytical Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA91</td>
<td>Quantum Structures: Photonics and Transport</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFYA92</td>
<td>Project Course in Applied Physics, CDIO</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TFYY67</td>
<td>Classical Electrodynamics</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TMES09</td>
<td>Industrial Energy Systems</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>Course code</td>
<td>Course name</td>
<td>Credits</td>
<td>Level</td>
<td>Timetable module</td>
<td>EMV</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>------------------</td>
<td>-----</td>
</tr>
<tr>
<td>TMMS11</td>
<td>Models of Mechanics</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TMMV01</td>
<td>Aerodynamics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TNE071</td>
<td>Microwave Engineering</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TNE089</td>
<td>Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TNM067</td>
<td>Scientific Visualization</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TPPE53</td>
<td>Financial Valuation Methodology</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSBB11</td>
<td>Images and Graphics, Project Course CDIO</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSBB17</td>
<td>Visual Object Recognition and Detection</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSBK03</td>
<td>Advanced Game Programming</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSEA26</td>
<td>Design of Embedded DSP Processor</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSEA84</td>
<td>Digital Design Project</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSEK03</td>
<td>Radio Frequency Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSEK11</td>
<td>Evaluation of an Integrated Circuit</td>
<td>2</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSFS12</td>
<td>Autonomous Vehicles - Planning, Control, and Learning Systems</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSIN01</td>
<td>Information Networks</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSI03</td>
<td>Cryptology</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSKS05</td>
<td>Communication Systems, Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSKS12</td>
<td>Modern Channel Coding, Inference and Learning</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSRT10</td>
<td>Automatic Control - Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSTE17</td>
<td>System Design</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSTE25</td>
<td>Power Electronics</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
</tbody>
</table>

**Period 2**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TATA32</td>
<td>Discrete Mathematics</td>
<td>8*</td>
<td>G1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TATA62</td>
<td>Project - Applied Mathematics</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TATA75</td>
<td>Theory of Relativity</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TBM102</td>
<td>Medical Image Analysis</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TBMT14</td>
<td>Biomedical Engineering - Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TDDC88</td>
<td>Software Engineering</td>
<td>12*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TDDD49</td>
<td>Programming in C# and .NET Framework</td>
<td>4</td>
<td>G2X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TDDD56</td>
<td>Multicore and GPU Programming</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>Course code</td>
<td>Course name</td>
<td>Credits</td>
<td>Level</td>
<td>Timetable module</td>
<td>EMV</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>------------------</td>
<td>-----</td>
</tr>
<tr>
<td>TFYA17</td>
<td>Advanced Project Work in Applied Physics</td>
<td>6*</td>
<td>A1X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>TFYA27</td>
<td>Elementary Particle Physics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA28</td>
<td>Quantum Dynamics</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFYA57</td>
<td>Relativistic Quantum Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA92</td>
<td>Project Course in Applied Physics, CDIO</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TFYY54</td>
<td>Nano Physics</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TFYY67</td>
<td>Classical Electrodynamics</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TMME50</td>
<td>Flight Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TMMS11</td>
<td>Models of Mechanics</td>
<td>6*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TNE083</td>
<td>Antenna Theory</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TNE089</td>
<td>Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TNM086</td>
<td>Virtual Reality Techniques</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TPPE61</td>
<td>Financial Optimization</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSBB11</td>
<td>Images and Graphics, Project Course CDIO</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSBK03</td>
<td>Advanced Game Programming</td>
<td>6*</td>
<td>A1X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>TSEA44</td>
<td>Computer Hardware - a System on Chip</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSEA84</td>
<td>Digital Design Project</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSKS05</td>
<td>Communication Systems, Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSRT08</td>
<td>Optimal Control</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSRT10</td>
<td>Automatic Control - Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSTE17</td>
<td>System Design</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSTE26</td>
<td>Powergrid and Technology for Renewable Production</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSTE85</td>
<td>Low Power Electronics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>
### Specialisation: Applied Mathematics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TATA62</td>
<td>Project - Applied Mathematics</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>TATA75</td>
<td>Theory of Relativity</td>
<td>6*</td>
<td>A1X</td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>TATM38</td>
<td>Mathematical Models in Biology</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TFYA40</td>
<td>Analytical Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TMMS11</td>
<td>Models of Mechanics</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TPPE53</td>
<td>Financial Valuation Methodology</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSRT10</td>
<td>Automatic Control - Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
</tbody>
</table>

**Period 2**

| TATA62      | Project - Applied Mathematics         | 12*     | A1X   | 4                | M/E |
| TATA75      | Theory of Relativity                  | 6*      | A1X   | 3                | E   |
| TFYA57      | Relativistic Quantum Mechanics        | 6       | A1X   | 2                | E   |
| TMMS11      | Models of Mechanics                   | 6*      | A1X   | 4                | E   |
| TPPE61      | Financial Optimization                | 6       | A1X   | 2                | E   |
| TSRT10      | Automatic Control - Project Course    | 12*     | A1X   | 4                | M/E |

### Specialisation: Applied Physics - Materials and Nano Physics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFYA17</td>
<td>Advanced Project Work in Applied Physics</td>
<td>6*</td>
<td>A1X</td>
<td></td>
<td>E</td>
</tr>
<tr>
<td>TFYA40</td>
<td>Analytical Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA91</td>
<td>Quantum Structures: Photonics and Transport</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFYA92</td>
<td>Project Course in Applied Physics, CDIO</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
</tbody>
</table>

**Period 2**

| TFYA17      | Advanced Project Work in Applied Physics   | 6*      | A1X   |                  | E   |
| TFYA92      | Project Course in Applied Physics, CDIO     | 12*     | A1X   | 4                | M   |
| TFYY54      | Nano Physics                               | 6       | A1X   | 3                | M   |
### Specialisation: Applied physics - Theory, Modelling and Computation

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TFYA17</td>
<td>Advanced Project Work in Applied Physics</td>
<td>6*</td>
<td>A1X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>TFYA40</td>
<td>Analytical Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>TFYA91</td>
<td>Quantum Structures: Photonics and Transport</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFYA92</td>
<td>Project Course in Applied Physics, CDIO</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TFYY67</td>
<td>Classical Electrodynamics</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TFYA17</td>
<td>Advanced Project Work in Applied Physics</td>
<td>6*</td>
<td>A1X</td>
<td>-</td>
<td>E</td>
</tr>
<tr>
<td>TFYA27</td>
<td>Elementary Particle Physics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA28</td>
<td>Quantum Dynamics</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TFYA57</td>
<td>Relativistic Quantum Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TFYA92</td>
<td>Project Course in Applied Physics, CDIO</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TFYY67</td>
<td>Classical Electrodynamics</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
</tbody>
</table>

### Specialisation: Biomedical Engineering

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAMS39</td>
<td>Multivariate Statistical Methods</td>
<td>6</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TATM38</td>
<td>Mathematical Models in Biology</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TBMT14</td>
<td>Biomedical Engineering - Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TBMT36</td>
<td>Biomedical Optics</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBMI02</td>
<td>Medical Image Analysis</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TBMT14</td>
<td>Biomedical Engineering - Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
</tbody>
</table>
**Specialisation: Communication**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSEK03</td>
<td>Radio Frequency Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSIN01</td>
<td>Information Networks</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>M</td>
</tr>
<tr>
<td>TSIT03</td>
<td>Cryptology</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSKS05</td>
<td>Communication Systems, Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TSKS12</td>
<td>Modern Channel Coding, Inference and Learning</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
</tbody>
</table>

**Specialisation: Control and Information Systems**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TATA62</td>
<td>Project - Applied Mathematics</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>TDTS06</td>
<td>Computer Networks</td>
<td>6</td>
<td>G2X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSFS12</td>
<td>Autonomous Vehicles - Planning, Control, and Learning Systems</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSRT10</td>
<td>Automatic Control - Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
</tbody>
</table>

**Specialisation: Control and Information Systems**

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TATA62</td>
<td>Project - Applied Mathematics</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>TSRT08</td>
<td>Optimal Control</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSRT10</td>
<td>Automatic Control - Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
</tbody>
</table>
### Specialisation: Electronics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNE071</td>
<td>Microwave Engineering</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TNE089</td>
<td>Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design</td>
<td>6*</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSEA26</td>
<td>Design of Embedded DSP Processor</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSEA84</td>
<td>Digital Design Project</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSEK03</td>
<td>Radio Frequency Integrated Circuits</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSEK11</td>
<td>Evaluation of an Integrated Circuit</td>
<td>2</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSTE17</td>
<td>System Design</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>TSTE25</td>
<td>Power Electronics</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
</tbody>
</table>

### Period 2

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNE083</td>
<td>Antenna Theory</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TNE089</td>
<td>Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSEA44</td>
<td>Computer Hardware - a System on Chip</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSEA84</td>
<td>Digital Design Project</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSTE17</td>
<td>System Design</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>TSTE26</td>
<td>Powergrid and Technology for Renewable Production</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSTE85</td>
<td>Low Power Electronics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>

### Specialisation: Financial Mathematics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TATA62</td>
<td>Project - Applied Mathematics</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TPPE53</td>
<td>Financial Valuation Methodology</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
</tbody>
</table>

### Period 2

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>TATA62</td>
<td>Project - Applied Mathematics</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TPPE61</td>
<td>Financial Optimization</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>M</td>
</tr>
</tbody>
</table>
### Specialisation: Mechatronics

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Period 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TFYA40</td>
<td>Analytical Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSFS12</td>
<td>Autonomous Vehicles - Planning, Control, and Learning Systems</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSRT10</td>
<td>Automatic Control - Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td><strong>Period 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMME50</td>
<td>Flight Mechanics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSRT08</td>
<td>Optimal Control</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSRT10</td>
<td>Automatic Control - Project Course</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
</tbody>
</table>

### Specialisation: Signal and Image Processing

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Period 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TNM067</td>
<td>Scientific Visualization</td>
<td>6</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSBB11</td>
<td>Images and Graphics, Project Course CDIO</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TSBB17</td>
<td>Visual Object Recognition and Detection</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSBK03</td>
<td>Advanced Game Programming</td>
<td>6*</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSKS15</td>
<td>Detection and Estimation of Signals</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td><strong>Period 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBMI02</td>
<td>Medical Image Analysis</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TDDD56</td>
<td>Multicore and GPU Programming</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TDDE01</td>
<td>Machine Learning</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TNM086</td>
<td>Virtual Reality Techniques</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSBB11</td>
<td>Images and Graphics, Project Course CDIO</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M</td>
</tr>
<tr>
<td>TSBK03</td>
<td>Advanced Game Programming</td>
<td>6*</td>
<td>A1X</td>
<td>-</td>
<td>E</td>
</tr>
</tbody>
</table>
### Specialisation: System-on-Chip

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDT508</td>
<td>Advanced Computer Architecture</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSEA26</td>
<td>Design of Embedded DSP Processor</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSEA84</td>
<td>Digital Design Project</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSEK11</td>
<td>Evaluation of an Integrated Circuit</td>
<td>2</td>
<td>A1X</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>TSTE17</td>
<td>System Design</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDDD56</td>
<td>Multicore and GPU Programming</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSEA44</td>
<td>Computer Hardware - a System on Chip</td>
<td>6</td>
<td>A1X</td>
<td>1</td>
<td>E</td>
</tr>
<tr>
<td>TSEA84</td>
<td>Digital Design Project</td>
<td>6*</td>
<td>A1X</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>TSIT02</td>
<td>Computer Security</td>
<td>6</td>
<td>G2X</td>
<td>2</td>
<td>E</td>
</tr>
<tr>
<td>TSTE17</td>
<td>System Design</td>
<td>12*</td>
<td>A1X</td>
<td>4</td>
<td>M/E</td>
</tr>
<tr>
<td>TSTE85</td>
<td>Low Power Electronics</td>
<td>6</td>
<td>A1X</td>
<td>2</td>
<td>E</td>
</tr>
</tbody>
</table>

### Semester 10 (Spring 2020)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Level</th>
<th>Timetable module</th>
<th>EMV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TQXX33</td>
<td>Degree project - Master’s Thesis</td>
<td>30*</td>
<td>A1X</td>
<td>-</td>
<td>M</td>
</tr>
<tr>
<td>Period 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TQXX33</td>
<td>Degree project - Master’s Thesis</td>
<td>30*</td>
<td>A1X</td>
<td>-</td>
<td>M</td>
</tr>
</tbody>
</table>

* The course is divided into several semesters and/or periods.