## Computer Science and Engineering + Applied Mathematics Combination Curriculum

### 1st year

<table>
<thead>
<tr>
<th>Quarter 1</th>
<th>Quarter 2</th>
<th>Quarter 3</th>
<th>Quarter 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculus</td>
<td>Applied Physical Sciences</td>
<td>Data Engineering</td>
<td>USE</td>
</tr>
<tr>
<td>Programming</td>
<td>Data modeling &amp; data bases</td>
<td>Data structures</td>
<td>Analysis 2</td>
</tr>
<tr>
<td>Set theory and algebra</td>
<td>Discrete Structures</td>
<td>Computer Systems</td>
<td>DBL HTI + Webtech</td>
</tr>
<tr>
<td>Linear algebra 1</td>
<td>Analysis 1</td>
<td>Linear algebra 2</td>
<td></td>
</tr>
</tbody>
</table>

### 2nd year

<table>
<thead>
<tr>
<th>Quarter 1</th>
<th>Quarter 2</th>
<th>Quarter 3</th>
<th>Quarter 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automata, language theory and complexity</td>
<td>Programming Methods</td>
<td>Ordinary differential equations</td>
<td>Complex analysis</td>
</tr>
<tr>
<td>Intr. Numerical analysis</td>
<td>Probability theory</td>
<td>Algebra and discrete mathematics</td>
<td>Stochastic processes</td>
</tr>
<tr>
<td>Elective/USE*</td>
<td>Elective/USE*</td>
<td>Elective/USE*</td>
<td>Elective/USE*</td>
</tr>
</tbody>
</table>

### 3rd year

<table>
<thead>
<tr>
<th>Quarter 1</th>
<th>Quarter 2</th>
<th>Quarter 3</th>
<th>Quarter 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorithms</td>
<td>Operating systems</td>
<td>Final project Applied Mathematics</td>
<td></td>
</tr>
<tr>
<td>Process Modelling and Simulation</td>
<td>Data Mining and Machine Learning</td>
<td>Software specification</td>
<td>Software engineering project</td>
</tr>
<tr>
<td>Mathematical statistics</td>
<td>Mathematical modelling</td>
<td>Elective/USE*</td>
<td></td>
</tr>
<tr>
<td>Linear optimization</td>
<td>Functional analysis</td>
<td>Elective/USE*</td>
<td>Elective/USE*</td>
</tr>
</tbody>
</table>

*) the set of above mentioned study components of the combined program needs to be completed with a USE package (15 credits) and electives to amount up to 225 credits in total.