# Course of Study Computational Science and Engineering (Study Cohort w19)

Sample course plan M Bachelor Computational Science and Engineering (IIWBS)
Specialisation I. Computer Science, Specialisation II. Mathematics & Engineering Science, Specialisation III. Subject Specific Focus

<table>
<thead>
<tr>
<th>Semester</th>
<th>Form/Week</th>
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**Semester 1**

- **Form/Week**: 1
  - **LP**: 1
    - **Course**: Discrete Algebraic Structures
    - **Form/Week**: VL 2

- **Form/Week**: 2
  - **LP**: 2
    - **Course**: Electrical Engineering II: Alternating Current Networks and Basic Devices
    - **Form/Week**: VL 2

- **Form/Week**: 3
  - **LP**: 3
    - **Course**: Numerical Mathematics I
    - **Form/Week**: VL 2

- **Form/Week**: 4
  - **LP**: 4
    - **Course**: Signals and Systems
    - **Form/Week**: VL 2

- **Form/Week**: 5
  - **LP**: 5
    - **Course**: Introduction to Communications and Random Processes
    - **Form/Week**: VL 2

**Semester 2**

- **Form/Week**: 1
  - **LP**: 6
    - **Course**: Procedural Programming
    - **Form/Week**: VL 1

- **Form/Week**: 2
  - **LP**: 7
    - **Course**: Automata Theory and Formal Languages
    - **Form/Week**: VL 2

- **Form/Week**: 3
  - **LP**: 8
    - **Course**: Computer Engineering
    - **Form/Week**: VL 2

- **Form/Week**: 4
  - **LP**: 9
    - **Course**: Stochastics
    - **Form/Week**: VL 2

- **Form/Week**: 5
  - **LP**: 10
    - **Course**: Introduction to Control Systems
    - **Form/Week**: VL 2

**Semester 3**

- **Form/Week**: 1
  - **LP**: 11
    - **Course**: Electrical Engineering I: Direct Current Networks and Electromagnetic Fields
    - **Form/Week**: VL 3

- **Form/Week**: 2
  - **LP**: 12
    - **Course**: Foundations of Management
    - **Form/Week**: VL 3

- **Form/Week**: 3
  - **LP**: 13
    - **Course**: Computer Networks and Internet Security
    - **Form/Week**: VL 3

- **Form/Week**: 4
  - **LP**: 14
    - **Course**: Embedded Systems
    - **Form/Week**: VL 3

**Semester 4**

- **Form/Week**: 1
  - **LP**: 15
    - **Course**: Mathematics I
    - **Form/Week**: VL 2

- **Form/Week**: 2
  - **LP**: 16
    - **Course**: Analysis I
    - **Form/Week**: VL 2

- **Form/Week**: 3
  - **LP**: 17
    - **Course**: Mathematics II
    - **Form/Week**: VL 2

- **Form/Week**: 4
  - **LP**: 18
    - **Course**: Analysis I
    - **Form/Week**: VL 2

**Semester 5**

- **Form/Week**: 1
  - **LP**: 19
    - **Course**: Mathematics III
    - **Form/Week**: VL 2

- **Form/Week**: 2
  - **LP**: 20
    - **Course**: Seminar Computer Science and Mathematics
    - **Form/Week**: SE 2

**Semester 6**

- **Form/Week**: 1
  - **LP**: 21
    - **Course**: Computer Architecture
    - **Form/Week**: VL 2

- **Form/Week**: 2
  - **LP**: 22
    - **Course**: Bachelor Thesis
    - **Form/Week**: VL 2

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**Legend:**
- **SU**: Study Unit
- **LV**: Lecture Hour
- **UE**: Exercise Hour
- **VL**: Lecture Hour
- **HU**: Lecture Hour
- **SE**: Seminar Hour
<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Nontechnical Complementary Courses for Bachelors (from catalogue)</td>
<td>6LP</td>
</tr>
<tr>
<td>Technical Complementary Course for Computational Science and Engineering Bachelor</td>
<td>12LP</td>
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The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.