Master Program
Computational Science and Engineering

http://www.cse.ethz.ch/
Basic principles:

**Core Courses:** Methodology in Mathematics and Computer Science

**Field of Specialisation:** Specialisation in one computational application area

**Elective Courses:** CSE related

**Term Paper:** Application orientated work in a team, typically in the field of specialisation
Master in Computational Science and Engineering
(1 year followed by Master thesis)

KP = Minimum number of Credit Points

<table>
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<tr>
<th>Course type</th>
<th>KP</th>
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<tbody>
<tr>
<td>Core Courses</td>
<td>12</td>
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<tr>
<td>Field of Specialisation</td>
<td>18</td>
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<tr>
<td>Elective Courses</td>
<td>6</td>
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<tr>
<td>Case Studies</td>
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<td>Term Paper</td>
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<td>GESS</td>
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<td>Master Thesis (4 months)</td>
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<td>Requirement for Master</td>
<td>90</td>
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Core Courses:

a. Computational statistics
b. Visualisation and graphics

Both core courses have to be taken.
List of fields of specialisation:

- Astrophysics
- Physics of the atmosphere
- Chemistry and biology
- Fluid dynamics
- Control theory
- Robotics
- Theoretical physics
- Financial engineering

Master: 4 courses to be taken plus a student seminar in 1 or 2 of the fields of specialisation
Elective courses:

- 2 courses to be chosen
- Choice out of more than 60 courses

Case studies:

Case studies in application areas; seminars by experts from ETH and from outside (to be chosen twice)

Students have to give short seminar talks

Term paper:

- approx. 160 hours (i.e., approx. 3 afternoons per week per semester)
- written report and seminar talk