

Master Degree Programme in Computational Science (Curriculum 01.10.2013)

B. For graduates with a BSc in Mathematics:

1. Core-Programme (42 ECTS)

- 1.SEM** { Compulsory modules: Computational Concepts in Natural Science Part 1 (PM-CCNW1, 12 ECTS)
- . CO-AST1 Computational Concepts in Astronomy and Geosciences I (VO, 3 ECTS)
 - . CO-PHY1 Computational Concepts in Physics I (VO, 3 ECTS)
 - . CO-CHE1 Computational Concepts in Chemistry I (VO, 3 ECTS)
 - . CO-BIO1 Computational Concepts in Biology I (VO, 3 ECTS)
- + 18 ECTS out of the Shell-Programme
- 2.SEM** { Alternative group of compulsory modules: Advanced Courses in Mathematics and Computer Science (APMG 2b, 18 ECTS)
- . CO-MAT3 Advanced Courses in Mathematics (VO 3 ECTS, VO 3 ECTS)
 - . CO-INF2 Advanced Courses in Computer Science I (VO 3 ECTS, UE 3 ECTS)
 - . CO-INF3 Advanced Courses in Computer Science II (VU 3 ECTS, VU 3 ECTS)
- Group of compulsory modules: Computational Concepts in Natural Science Part 2 (PMG-CCNW2, 12 ECTS)
- . CO-AST2 Computational Concepts in Astronomy and Geosciences II (VO 3 ECTS)
 - . CO-PHY2 Computational Concepts in Physics II (VO 3 ECTS)
 - . CO-CHE2 Computational Concepts in Chemistry II (VO 3 ECTS)
 - . CO-BIO2 Computational Concepts in Biology II (VO 3 ECTS)

2. Shell-Programme (48 ECTS)

- 3.SEM** { Compulsory modules: Shell-focus (PM S-SP, 24 ECTS) (Deepening in one of the following 6 areas)
- . Focus Mathematics
 - . Focus Computer Science
 - . Focus Astronomy
 - . Focus Physics
 - . Focus Chemistry
 - . Focus Biology
- Compulsory shell supplement (PM S-E, 24 ECTS)(Courses from at least 3 of the 6 following areas, which cannot be the same as the shell-focus)
- . Focus Mathematics
 - . Focus Computer Science
 - . Focus Astronomy
 - . Focus Physics
 - . Focus Chemistry
 - . Focus Biology
- + Graduation of the open 30 ECTS (48-18=30) out of the Shell-Programme

- 4.SEM** { 3. Master Thesis (27 ECTS)
4. Defense (Master's Examination) (3 ECTS)