

MSCM
Master of Science in Computational Mechanics

Duration: 2 years

Course description:

This full-time programme is offered by: Universitat Politècnica de Catalunya (Barcelona, Spain), Swansea University (United Kingdom), École Centrale de Nantes (Nantes, France) and Universität Stuttgart (Stuttgart, Germany). These institutions have a longstanding tradition in Computational Mechanics.

Objectives:

The Master is designed for students who wish to develop their knowledge and competency in the field of computational mechanics with applications in solids, fluids and interdisciplinary fields. The goal is to provide the students with the skills for the modelling, formulation, analysis and implementation of simulation tools for advanced engineering problems, as well as skills for understanding these approaches in the broader context of engineering science. Students may take the Master as a professional terminal degree, or in preparation for a Ph.D. degree.

Duration and mobility:

The Master's programme consists of 120ECTS (two academic years). Students attend two institutions: the first institution (either Barcelona or Swansea) is responsible for teaching 35ECTS and the second institution, different from the first one (Stuttgart, Nantes, Barcelona or Swansea), the remaining 85ECTS. It is organized in four terms.

Summary of study programme:

The first term is aimed at providing a solid background on mechanics and numerical methods. It consists of a set of core modules completed by elective modules. These core modules are taught jointly at Barcelona and Swansea (same syllabus and exams). The second term consists of a minor aimed at providing a more in-depth knowledge in a selected area. The third and fourth terms include Practical Training in industry or an applied research centre and a Master's Thesis.

Complementary information:

Students are distributed evenly between partners, the entire Master Programme is taught in English. See all details as well as admission requirements and degrees awarded at the master's website.

Website: www.cimne.com/cm-master/

Partners:

TECHNICAL UNIVERSITY OF CATALONIA, Spain (Co-ordinating institution)
UNIVERSITY OF STUTTGART, Germany
ECOLE CENTRALE DE NANTES, France
SWANSEA UNIVERSITY, United Kingdom

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Grant:

1 062 000 € (15 000 € consortium + 1 047 000 € scholarships), 2007
865 000 € (15 000 € consortium + 850 000 € scholarships), 2008
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809 200 € (30 000 € consortium + 779 200 € scholarships), 2010