MathMods MSc course is divided into four semesters. Each semester totals 30 ECTS credits. Mobility scheme will involve two institutions at least. The FIRST YEAR is common for all students. This will guarantee an equal knowledge platform for all of them. The SECOND YEAR will be divided into six branches, which reflect the field of excellence of each institution:

- Advanced computational methods in material science (GUT)
- Mathematical modelling applications to biology and finance (UNSA)
- Mathematical models in life sciences (UAQ)
- Modelling and simulation of electronic devices (UAQ)
- Modelling, simulation, and optimization of complex systems (UHH)
- Stochastic modelling and optimization (UAB).

What is Erasmus Mundus?
Erasmus Mundus is a cooperation and mobility programme in the field of higher education which promotes the European Union as a worldwide centre of excellence in learning. The programme supports European top-quality master’s courses and enhances the visibility and attractiveness of European higher education in third countries, providing EU-funded scholarships.

What is MathMods Programme?
MathMods is a two-year MSc programme (120 ECTS) within 5 European universities, providing students with a cross cultural education while getting acquainted with both theory and applications of mathematical modelling in engineering.

Aims
Mathematical modelling lies at the heart of most current technological innovations and has become a fundamental tool in many fields of engineering. Essentially multidisciplinary in its applications, mathematical modelling and simulation is in its own right a key technology which is bound to increase its presence within efficient industries and businesses. The proposed programme reflects this multidisciplinarity, drawing on the unifying mathematical aspects from the various and often separate engineering disciplines.

MathMods Consortium
MathMods is a consortium of five European universities coordinated by the
- University of L’Aquila in Italy (UAQ)
- Autonomous University of Barcelona in Catalonia, Spain (UAB)
- University of Hamburg in Germany (UHH)
- Gdansk University of Technology in Poland (GUT)
- University of Nice - Sophia Antipolis in France (UNSA).

Study Programme
First Semester
THEORY
at UAQ, Italy

Second Semester
NUMERICS
at either UNSA, France or UHH, Germany

Third Semester
APPLICATIONS
at 1 of the 5 institutions

Fourth Semester
MASTER THESIS
at 1 of the 5 institutions

Language
The language of the whole programme will be exclusively English at each of the five universities. Students will also have to attend a local language course during the semester they will be spending at each partner institution.

Requirements
Applicants must have obtained a recognized Bachelor’s Degree (BS, BSc, SB, etc.) – or a degree at the level of a Bachelor’s Degree, for instance its equivalent from a college, university, or technical school of high standing, or 180 ECTS credits in the European system – in Mathematics, Applied Mathematics, Physics, Engineering with a large background in Mathematics.

All applicants whose native language is not English are required to prove a satisfactory level of spoken and written English, certified by TOEFL (550 points), IELTS (6.0 points) or equivalent.

Scholarships
This year the European Commission offers 20 Erasmus Mundus scholarships to both European and non-European students. These scholarships amount to:

- EUR 48,000.00 (non-EU students)
- EUR 20,000 (EU students)

to cover the two year expenses and are granted to the most promising applicants.

How to apply?
The application for MathMods programme and the submission of all the required documents must be made on-line. Applicants will find instructions and the link to the on-line form on MathMods web-site: www.mathmods.eu

Deadline for Scholarships
✔ 31 December 2009 for non-EU students
✔ 15 May 2010 for EU students
Autonomous University of Barcelona, Catalonia - Spain

COORDINATOR: Prof. Aureli Alabert
DEPARTMENT: Department of Mathematics
PHONE: +34 93 5811304
E-MAIL: aureli.alabert@mathmods.eu

University of Nice Sophia-Antipolis, France

COORDINATOR: Prof. Pierre-Emmanuel Jabin
DEPARTMENT: Laboratoire J.-A. Dieudonné
PHONE: +33 4 92076220
E-MAIL: pierre-emmanuel.jabin@mathmods.eu

Gdansk University of Technology, Poland

COORDINATOR: Prof. Jaroslaw Rybicki
DEPARTMENT: Department of Solid State Physics
PHONE: +48 58 3472834
E-MAIL: jaroslaw.rybicki@mathmods.eu

University of L’Aquila, Italy

COORDINATOR: Prof. Bruno Rubino
DEPARTMENT: Department of Pure and Applied Mathematics
PHONE: +39 0862 702116
E-MAIL: bruno.rubino@mathmods.eu

University of Hamburg, Germany

COORDINATOR: Prof. Ingenuin Gasser
DEPARTMENT: Department of Mathematics
PHONE: +49 40 428385128
E-MAIL: ingenuin.gasser@mathmods.eu

MathMods Programme

Department of Pure and Applied Mathematics
University of L’Aquila
Via Vetoio (Coppito), 1
67100 L’Aquila (AQ), Italy
Phone: +39 0862 702116
Web-site: www.mathmods.eu
E-mail: info@mathmods.eu