MathMods

Education and Culture DG
ERASMUS MUNDUS

Mathematical modelling in engineering: theory, numerics, applications

www.mathmods.eu

An integrated MSc Course under the Erasmus Mundus programme involving five European universities

Why MathMods?

- The project offers students the opportunity to study mathematics from the point of view of its application to various fields of engineering.
- It is directed at the training of highly qualified engineers, able to devise a wide range of solutions to industrial problems by the application of applied mathematical methods.
- It reflects the widely recognised fact that engineering research has come to demand an ever deepening acquaintance with mathematical modelling techniques.

An advanced European programme

- The Erasmus Mundus Master MathMods is a joint programme of the European Commission and five leading European research institutions.
- Students spend the first academic year in two of the universities of the consortium. The second year can be spent at any one of the five participating institutions, each of which offers a particular specialisation - shown in the table below.

Additional benefits

- A two-month training period in an international industrial company is scheduled for the end of the first year.
- A personal tutor will assist with the research project to be undertaken by each student (choice of topic, specific methodology, etc.).
- On successful completion of the course, students obtain a multiple diploma of the five universities of the consortium.

Scholarships

- Erasmus Mundus scholarships are available from the European Commission for non-European students (42,000 Euro for the two year duration).
- A limited number of scholarships are also available for European students.

Language

- The language of instruction will be English.
- Students will benefit from everyday life experience in the various European centres, together with the language and cultural courses provided by each of the participating universities.

Deadlines

- For non-European applicants: January 31, 2008
- For European applicants: May 31, 2008

Studies structure

Semester	
1	**Theory** (L'Aquila)
2	**Numerics** (Nice)
3	**Stochastic modelling and optimization** (Barcelona) **Modelling and simulation of electronic devices** (L'Aquila) **Advances computational methods in material sciences** (Gdansk) **Mathematical modelling applications to biology and finance** (Nice) **Modelling, simulation, and optimization of complex systems** (Hamburg)
4	**Dissertation** (Barcelona/Hamburg/L'Aquila/Gdansk/Nice)

Autonomous University of Barcelona - Catalonia

University of Hamburg Germany

University of L'Aquila Italy

Gdansk University of Technology - Poland

University of Nice Sophia Antipolis - France

Full details and application forms can be found on **www.mathmods.eu**