

CEMACUBE

Common European Master's course in Biomedical Engineering

Duration: 2 years

Course description:

The Erasmus Mundus Master's course CEMACUBE (Common European MAster's CoUrse in Biomedical Engineering) will prepare students from Europe and outside Europe for professions in Biomedical Engineering.

Biomedical Engineering is a broad multidisciplinary area, involving many sub-specialisations, varying from regenerative medicine to implant design and from PET-scan imaging to biosensors. For a single university it is difficult to have enough knowledge of all sub-specialisations in Biomedical Engineering to teach their students on an adequate level. Also the required European scope is difficult to gain when students stick to a single university. Therefore a consortium of 6 universities has joined their knowledge and specific expertise into a 2-year European Master's in Biomedical Engineering: the Universities of Groningen (The Netherlands), Aachen (Germany), Dublin (Ireland), Ghent and Brussels (Belgium), Prague (Czech Republic).

Admission criteria are: a Bachelor in engineering and good knowledge of English (all teaching will be given in English), a convincing motivation letter and letters of reference. During the first year (semester 1 and 2), a student will follow lectures on all biomedical engineering subjects at one of the six universities. In the third semester (s)he will move to one of the participating universities to follow lectures on a specific topic, like medical imaging, tissue engineering or artificial organs. During the fourth and last semester, a Master's project will be performed on this specialisation at one of the 6 participating universities or at one of the 7 associated universities: ETH Zurich (Switzerland), Calabria (Italy), Aalborg (Denmark), Strathclyde (UK), Compiègne (France), Patras (Greece), Warsaw (Poland). Each student will receive a double degree.

Products that are manufactured and distributed by companies involved in Biomedical Engineering are meant for a specific, thus small group of patients. To have a sufficiently large market, they all have a European or global scope. This requires employees that are educated with a European scope. Institutes involved in research in Biomedical Engineering have to include many disciplines in their research teams to have progress, since Biomedical engineering covers such a large field of expertise, including many medical and technical specialisations. So they need employees that are educated in teamwork. Students that followed this European Master's course in Biomedical Engineering are trained with a European scope, experienced in intercultural and interdisciplinary teamwork, have a broad overview of the entire field of Biomedical Engineering and are trained to specialise themselves in a specific field within Biomedical Engineering.

Website: www.biomedicaltechnology.eu

Partners:

UNIVERSITY OF GRONINGEN, Netherlands (Co-ordinating institution)
FREE UNIVERSITY OF BRUSSELS (VUB), Belgium
CZECH TECHNICAL UNIVERSITY PRAGUE, Czech Republic
TRINITY COLLEGE DUBLIN, Ireland
AACHEN UNIVERSITY, Germany
GHENT UNIVERSITY, Belgium

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Maximum grant:

862 000 € (30 000 € consortium + 832 000 € scholarships), 2010
713 200 € (30 000 € consortium + 683 200 € scholarships), 2011
682 600 € (30 000 € consortium + 652 600 € scholarships), 2012
590 000 € (30 000 € consortium + 560 000 € scholarships), 2013