What Biomedical Engineers do

Biomedical engineers are employed in the industry, commercial business, academic institutes, hospitals, insurance companies or the government. They design a variety of medical equipment, from huge diagnostic imaging systems to tiny implants. Chemical and physical knowledge is used to develop sustainable materials for a biological environment. Some biomedical engineers develop and implement wireless systems to help patients, doctors and other aid-workers interact at distance. In the field of rehabilitation biomedical engineers help to improve devices and therapies.

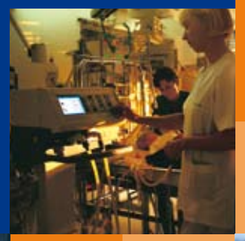
Issues on molecular and cellular level are covered with tissue technology, nanotechnology and micro machines. These technologies support the recovery of the damage in a cell or change the gene function. Biomedical engineers work in hospitals as medical engineers, clinical physicists or clinical chemists. Others are businessman/woman, patent empowered, researcher or professor Some biomedical engineers are specialized to manage the changes in the processes and technology in healthcare organizations.

A new field

Health Care develops fast. People stay healthy longer and illnesses can be cured more often. Technology plays an important role in prevention, diagnosis, therapy, rehabilitation and care.

The biomedical engineer is able to solve multidisciplinary problems of medicine. This ranges from implants and tissue engineering to three-dimensional imaging of organs. Rehabilitation devices and advanced systems for patient care are also included.

This new field demands specifically educated engineers. Biomedical engineers from the University of Twente have the capacities to cope with the expectations of the labour market. They are practically and theoretically skilled to operate in this dynamic field. The new generation academic engineers are the answer to your demand!



Contact Information

For more information about the Biomedical Engineering program or questions about the internship please contact the internship coördinator of Biomedical Engineering:

Betty Folkers
University of Twente
Faculty of Science and Technology

P.O. Box 217
7500 AE Enschede
The Netherlands

Tel: +31 –(0)53 – 4892772
E-mail: betty.folkers@utwente.nl
www.tnw.utwente.nl/bme

University of Twente
Enschede - The Netherlands

Biomedical Engineering

Healthcare institutions, medical device companies, consultancy firms, service organisations and government have a growing need for skilled professionals. Biomedical engineers are able to overview biomedical issues in their whole perspective.

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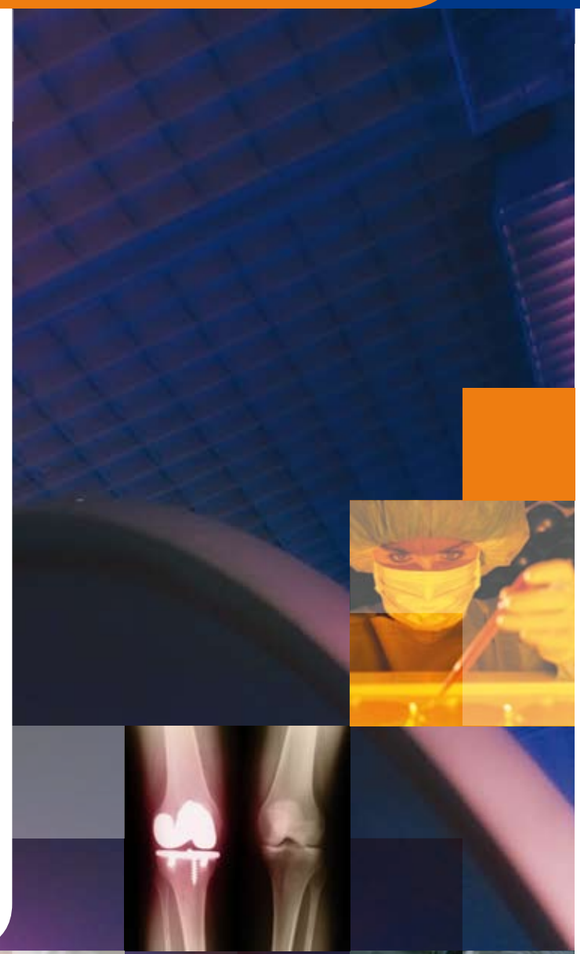
www.tnw.utwente.nl/bme

Biomedical Engineers Skills

Biomedical engineers from the University of Twente have the following competencies:

- They are a driving force behind the research, development and the implementation of new technologies in health care.
- In the design of products and the implementation of solutions they take into account the medical, economical, societal and social-cultural context.
- They are broadly academically educated and have profound knowledge.
- They are self-sufficient, enterprising and internationally orientated in their thinking and acting.

Biomedical engineers are all-round educated and have scientific expertise in the field of biology, medical science and technical disciplines. They are social skilled and are able to work in multidisciplinary teams.



Specialisations

Biomedical Engineers took up a specialization in their education program under supervision of one of the professors of the outstanding biomedical research institute BMTI. About fifteen research groups participate in this multidisciplinary field. Projects vary from in fundamental research to actual applications in hospitals.
See www.bmti.utwente.nl

The Human Function Technology track centres around technology for research into diagnostics, therapy and rehabilitation, for the associated development and design work. The primary focus is the analysis of failing functions in the human body and the design of medical devices for support or rehabilitation purposes. Health care technology is one of the chief objectives in this programme.

The Molecular, Cellular & Tissue Engineering track focuses on research into new biomaterials and biological tissues suitable for use in artificial organs and artificial blood vessels, and for replacing skin, bone or cartilage. It emphasises the importance of understanding the underlying molecular and cellular processes in relation to material science and the body's response. This research field constitutes the basis of regenerative medicine.