

Biomedical Engineering

Basic information

Code: SCI3065

Extent: 20 - 25 credits

Language: English

Teacher in charge: Ari Koskelainen

Administrative contact: Study coordinator Päivi Koivunen

Target group: Students of the Master's Programme in Life Science Technologies or students of other technology-oriented master's programmes.

Application procedure: Open for all students of Aalto University

Quotas and restrictions: No quotas

Prerequisites: BSc studies in the Bioinformation Technology major or equivalent knowledge in mathematics and physics.

Content and structure of the minor

Biomedical Engineering builds on a solid basis of physics and technology to characterise, monitor, image, and influence biological systems. The minor introduces the student to the physics of biological systems in order to efficiently measure, image, and model such systems.

To complete the minor (20 - 25 ECTS credits) the students have to take compulsory minor subject courses towards the minor (10 cr) and elective courses (10 - 15 cr) from the course list given below.

Structure of the minor

Code	Name	Credits
Compulsory courses		10
NBE-E4050	Signal Processing in Biomedical Engineering	5
NBE-E4000	Principles of Biomedical Imaging	5
Elective courses		10 - 15
Select as many courses as needed to fulfill the 20 - 25 credit requirement.		
NBE-E4100	Molecular Biophysics	5
NBE-E4510	Special Assignment in Biomedical Engineering	10
NBE-E4120	Cellular Electrophysiology	5
NBE-E4140	Neurophysics	5
NBE-E4130	Information Processing in Neural Circuits	5
NBE-E4020	Medical Imaging	5
NBE-E4010	Medical Image Analysis	5