

Biomedical Engineering

Basic information

Code: SCI3065

Extent: 20 - 25 credits

Language: English

Teacher in charge: Matias Palva

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 characterize, monitor, image and influence biological systems. This major introduces the student to physics of biological systems and to key concepts of related imaging and signal analysis.

Structure of the minor

Code	Name	Credits
Compulsory courses		10
NBE-E4000	Principles of Biomedical Imaging	5
NBE-E4050	Signal Processing in Biomedical Engineering	5
Elective courses		10 - 15
Select as many courses as needed to fulfill the 20 - 25 credit requirement.		
NBE-E4010	Medical Image Analysis	5
NBE-E4020	Medical Imaging	5
NBE-E4100	Molecular Biophysics	5
NBE-E4120	Cellular Electrophysiology	5
NBE-E4130	Information Processing in Neural Circuits	5
NBE-E4140	Neurophysics	5
NBE-E4310	Biomedical Ultrasonics	5
NBE-E4510	Special Assignment in Biomedical Engineering	10