

3 year BSc engineering programmes (180 ECTS)

with emphasis on preparation for MSc/PhD studies

84 ECTS core subjects fundamental to all disciplines

66 ECTS core subjects reflecting the special emphasis of each discipline

30 ECTS electives

84 ECTS GENERAL CORE

14 fundamental courses for all disciplines

Calculus I, II og III	Physics I og II	Chemistry	Programming I og II	Project Management
Numerical Analysis	Linear Algebra	Molecular and Cell Biology	Statistics I	Interdisciplinary Project

66 ECTS SPECIALIZED CORE

11 fundamental courses reflecting the special emphasis of each discipline

Biomedical Engineering	Mechatronics Engineering	Mechanical Engineering	Engineering Management	Financial Engineering
Electric Circuit Theory	Electric Circuit Theory	Electric Circuit Theory	Economics	Economics
Materials Science	Materials Science	Materials Science	Engineering Management	Engineering Management
Feedback Control Systems	Feedback Control Systems	Feedback Control Systems	Operations Research	Operations Research
Physics III	Dynamics	Dynamics	Corporate Finance	Corporate Finance
Physiology I	Thermodynamics	Thermodynamics	Statistics II	Statistics II
Physiology II	Machine Elements	Machine Elements	Databases	Databases
Signal Processing	Computer-Aided Design (CAD)	Computer-Aided Design (CAD)	Simulation	Risk Management
Statics and Mechanics	Statics and Mechanics	Statics and Mechanics	Management	Securities
Electronics I	Electronics I	Fluid Mechanics	Business Process Analysis	Derivatives
Instruments and Vital Signs	Mechatronics I	Heat Transfer	Engineering fundamentals*	Engineering fundamentals*
Medical Imaging	Signal Processing	Mechanical Design Lab	Engineering fundamentals*	Engineering fundamentals*

30 ECTS ELECTIVES

5 courses electives

Examples of electives that could be a good basis for graduate studies in the field, other electives are also available

Students can take up to 4 electives from other Schools and 2 electives from MSc studies in engineering

Biomedical Engineering	Mechatronics Engineering	Mechanical Engineering	Engineering Management	Financial Engineering
Prosthetics and Artificial Organs	Design Project X	Design Project X	Operation Management	Financial Mathematics
Clinical Engineering	Mechatronics II	Operations Research	Risk Management	Simulation
Biostatistics	Industrial Controllers & Robots	Partial Differential Equations	Decision Analysis	Treasury Management
Bioinformatics	Industrial Control Systems	Vibrations Theory	Time Series Analysis	Time Series Analysis
Biological Physics	Electronics II	Turbomachinery	Leadership	Data Structures
Biomechanics	Control Theory II	Control Theory II	Negotiations / Business Law	Algorithms
Neuronal Plasticity & Codes	Physics III	Energy Processes	Industrial Production Processes	Artificial Intelligence
Fluid Mechanics	Electromagnetic Theory	Energy Efficiency I/II	Management II	Effective Programming
Thermodynamics	Databases	Refrigeration	Materials Science / Energy I/II	Business Law
Digital Technology	Data Structures / Algorithms	Metallurgy and Processes	Controllers & Robots	Financial Markets
Sleep	Engineering Optimisation	Mechanical Design	Data Structures / Algorithms	Corporate Finance II
Basics of Electrical Stimulation	Numerical Methods	Engineering Optimisation	Windows Programming	Assets Management
Independent Research	Independent Research	Independent Research	Independent Research	Independent Research
MSc electives (max.2)	MSc electives (max.2)	MSc electives (max.2)	MSc electives (max.2)	MSc electives (max.2)
Foreign languages etc.	Foreign languages etc.	Foreign languages etc.	Foreign languages etc.	Foreign languages etc.

Students can also take electives from other programmes within Reykjavik University

*One of the following subjects: Thermodynamics, Statics and Mechanics, Dynamics, Hydraulics, Electric Circuit Theory, Mechanics of Materials