

Programme jointly offered by Ghent University, Vrije Universiteit Brussel, University of Groningen, Czech Technical University in Prague, RWTH Aachen University, Trinity College Dublin

International Master of Science in Biomedical Engineering

Language of instruction: English

Programme version 10

1 General Courses

General courses in accordance with the student's mobility scheme. Subject to approval by the faculty.

- Ghent University/Vrije Universiteit Brussel (Belgium): 55 credits
- Rijksuniversiteit Groningen (the Netherlands): 55 credits
- Rheinisch-Westphalian Technical University of Aachen (Germany): 60 credits
- Czech Technical University of Prague (Czech Republic): 54 credits
- Trinity College Dublin (Ireland): 44 credits

1.1 General Courses Ghent University/Vrije Universiteit Brussel (Belgium)

55 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E010371 Medical Imaging <i>Stefaan Vandenbergh -- Department of Electronics and Information Systems</i>	6		1	A:1	180
2	E063671 Biomaterials and Tissue Engineering <i>Peter Dubrue -- Department of Organic Chemistry</i>	5		1	A:1	150
3	E010382 Neuro-Engineering Science <i>Pieter van Mierlo -- Department of Electronics and Information Systems</i>	3		1	A:1	90
4	E074123 Artificial Organs <i>Sunny Eloit -- Department of Internal Medicine and Pediatrics</i>	5		1	A:1	150
5	E092814 Hospital Project <i>Renaat Peleman -- Department of Internal Medicine and Pediatrics</i>	5		1	A:J	150
6	E092802 Biomedical Product Development <i>Ewout Vansteenkiste -- Department of Physics and Astronomy</i>	6		1	A:J	180
7	E092682 Medical Equipment, Safety and Regulations <i>Sunny Eloit -- Department of Internal Medicine and Pediatrics</i>	5		1	A:2	150
8	E027770 Data Analytics in Healthcare and Connected Care <i>Sofie Van Hoecke -- Department of Electronics and Information Systems</i>	6		1	A:2	180
9	E010610 Biomedical Robotics and Assistive Technologies <i>Vrije Universiteit Brussel, Joost Geeroms</i>	5		1	A:1	150
10	E015590 Leadership in Health Care <i>UGent - VUB, Johan Stiens -- Vrije Universiteit Brussel</i>	3		1	A:2	90

1.1.1 General Courses Ghent University/Vrije Universiteit Brussel (Belgium): computational course

6 credits

Subscribe to 6 credit units from the following list. Subject to approval by the faculty.

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E092923 Computational Bio-Fluid Mechanics <i>Charlotte Debbaut -- Department of Electronics and Information Systems</i>	6		1	A:2	180
2	E092892 Computational Tissue and Structure Mechanics <i>Nele Famaey -- Department of Electronics and Information Systems</i>	6		1	A:2	180
3	E010620 Computational Neurophysiology <i>Sarah Verhulst -- Department of Information Technology</i>	6		1	A:2	180

1.2 General Courses Rijksuniversiteit Groningen (the Netherlands)

55 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900370 Signal Analysis / Physics <i>Rijksuniversiteit Groningen, N. N. -- University of Groningen</i>	5		1	A:1	150
2	E900371 Biomechanics 2 <i>Rijksuniversiteit Groningen, G.J. Verkerke -- University of Groningen</i>	5		1	A:1	150
3	E900372 Technology and Ethics; Quality of Life <i>Rijksuniversiteit Groningen, E.L.M. Maeckelberghe -- University of Groningen</i>	5		1	A:1	150
4	E900373 Biomedical Instrumentation <i>Rijksuniversiteit Groningen, J.J. Zijlstra -- University of Groningen</i>	5		1	A:1	150
5	E900374 Biomaterials 2 <i>Rijksuniversiteit Groningen, A.J. Schouten -- University of Groningen</i>	5		1	A:1	150
6	E900375 Numerical Methods <i>Rijksuniversiteit Groningen, R. Luppens -- University of Groningen</i>	5		1	A:2	150
7	E900376 Imaging Techniques in Radiology <i>Rijksuniversiteit Groningen, M.J.W. Greuter -- University of Groningen</i>	5		1	A:2	150
8	E900377 Interdisciplinary Project <i>Rijksuniversiteit Groningen, G.J. Verkerke -- University of Groningen</i>	5		1	A:2	150
9	E900378 Industrial Internship <i>Rijksuniversiteit Groningen, T.R. Koiter -- University of Groningen</i>	15		1	A:2	450

1.3 General Courses Rhenisch-Westphalian Technical University of Aachen (Germany)

60 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900396 Anatomy <i>RWTH Aachen University, Gary Brook</i>	6		1	A:1	180
2	E900397 Physiology <i>RWTH Aachen University, Mottaghy</i>	6		1	A:1, B:2	180
3	E900398 Biochemistry <i>RWTH Aachen University, Doris Klee</i>	5		1	A:1	150
4	E900399 Biology / Molecular Biology <i>RWTH Aachen University, Ursula Priefer</i>	5		1	A:1	150
5	E900400 Biomaterials / Biocompatibility <i>RWTH Aachen University, Doris Klee</i>	3		1	A:2	90
6	E900401 Ethics <i>RWTH Aachen University, Dominik Gross</i>	2		1	A:1	60
7	E900402 Mechanics / Biomechanics <i>RWTH Aachen University, Dieter Weichert</i>	6		1	A:1	180
8	E900403 Biotransport / Fluid Dynamics <i>RWTH Aachen University, J. Michael Schröder</i>	6		1	A:2	180
9	E900404 Methodical Design / Project Management <i>Rijksuniversiteit Groningen, G.J. Verkerke -- University of Groningen</i>	3		1	A:	90
10	E900405 Medical Imaging <i>RWTH Aachen University, Fabian Kiessling</i>	2		1	A:2	60
11	E900406 Biomedical Instrumentation <i>RWTH Aachen University, N. N.</i>	5		1	A:1	150
12	E900407 Electrical Engineering <i>RWTH Aachen University, Catherine Disselhorst-Klug</i>	6		1	A:2	180
13	E900408 Industrial Internship <i>Rijksuniversiteit Groningen, T.R. Koiter -- University of Groningen</i>	5		1	A:2	150

1.4 General Courses Czech Technical University of Prague (Czech Republic)

54 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900331 Anatomy and Physiology I <i>Czech Technical University in Prague, Kamil Mezián</i>	5		1	A:1	150
2	E900332 Project Proposal and Management <i>Czech Technical University in Prague, Jiri Hozman</i>	2		1	A:1	60
3	E900333 Biochemistry <i>Czech Technical University in Prague, Jiří Kukačka</i>	2		1	A:1	60

4	E900334	Biological Signals <i>Czech Technical University in Prague, Vladimír Krajča</i>	4	1	A:1	120
5	E900335	Fundamentals of Molecular Biology <i>Czech Technical University in Prague, Veronika Vymětalová</i>	5	1	A:1	150
6	E900336	Medical Devices & Equipment <i>Czech Technical University in Prague, Karel Roubík</i>	5	1	A:1	150
7	E900337	Biomechanics and Biomaterials <i>Czech Technical University in Prague, Patrick Kutilek</i>	4	1	A:1	120
8	E900340	Anatomy and Physiology II <i>Czech Technical University in Prague, Yulia Efremova</i>	5	1	A:2	150
9	E900341	Ethics in Biomedical Engineering <i>Czech Technical University in Prague, Friedo Zölzer</i>	2	1	A:2	60
10	E900342	Work with Information Sources and Research Methodology <i>Czech Technical University in Prague, Karel Roubík</i>	2	1	A:2	60
11	E900343	Imaging Systems <i>Czech Technical University in Prague, Jiri Hozman</i>	4	1	A:2	120
12	E900344	Biotransport <i>Czech Technical University in Prague, Pavel Kučera</i>	4	1	A:2	120
13	E900345	Fundamentals of Pathophysiology & Diagnostic Methods <i>RWTH Aachen University, Leoš Navrátil</i>	5	1	A:2	150
14	E900346	Practical Training Placement <i>Czech Technical University in Prague, Jiri Hozman</i>	5	1	A:2	150

1.5 General Courses Trinity College Dublin (Ireland)

44 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900314 Biomechanics <i>Trinity College Dublin, Patrick Kutilek -- Czech Technical University in Prague</i>	7		1	A:	210
2	E900315 Bioinstrumentation <i>Trinity College Dublin, Jiri Hozman -- Czech Technical University in Prague</i>	7		1	A:	210
3	E900316 Basic Medical Sciences <i>Trinity College Dublin, Kamil Mezián -- Czech Technical University in Prague</i>	3		1	A:	90
4	E900317 Biomaterials <i>Trinity College Dublin, Patrick Kutilek -- Czech Technical University in Prague</i>	7		1	A:	210
5	E900323 Project/Clinical Placement <i>Trinity College Dublin, Jiri Hozman -- Czech Technical University in Prague</i>	20		1	A:	600

2 Elective Courses

Elective courses in accordance with the student's mobility scheme. Subject to approval by the faculty.

In year 1:

- Ghent University/Vrije Universiteit Brussel (Belgium): 5 credits
- Rijksuniversiteit Groningen (the Netherlands): 5 credits
- Rhenisch-Westphalian Technical University of Aachen (Germany): no electives
- Czech Technical University of Prague (Czech Republic): 6 credits
- Trinity College Dublin (Ireland): 16 credits

In year 2:

- All universities: 30 credits

2.1 Elective Courses Ghent University/Vrije Universiteit Brussel (Belgium)

Subscribe to 35 credit units from the modules from the following list, with at least 24 credit units from the specialisation Medical Devices or the specialisation Health Care. Subject to approval by the faculty.

2.1.1 Elective Courses Ghent University/Vrije Universiteit Brussel (Belgium)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E022250 Bioelectromagnetism <i>Wout Joseph -- Department of Information Technology</i>	4			C:2	120
2	E016330 Artificial Intelligence <i>Aleksandra Pizurica -- Department of Telecommunications and Information Processing</i>	6			A:1	180
3	E027790 Control of Drug-Delivery Systems <i>Clara Ionescu -- Department of Electromechanical, Systems and Metal Engineering</i>	4			A:2	120
4	E099960 Internship 1 [en, nl]	3			A:1	90

5	E099970	Internship 2 [en, nl]	3		A:1	90
6	E099980	Internship 3 [en, nl]	6		B:2	180
7	E099920	International Internship 1	3			90
8	E099930	International Internship 2	3			90
9	E099940	International Internship 3	6		A:1	180

2.1.2 Elective Courses Ghent University/Vrije Universiteit Brussel (Belgium): free choice

Free choice: elective courses to be chosen from the programmes of Ghent University or the VUB. Subject to approval by the faculty.

2.1.3 Specialisation Medical Devices (Universiteit Gent/Vrije Universiteit Brussel - Belgium)

Subscribe to no less than 24 credit units from the following modules.

2.1.3.1 Advanced Design Methods in Biomedical Engineering

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E092913 Modeling in Medicine and Biomedical Engineering: Case Studies <i>Patrick Segers -- Department of Electronics and Information Systems</i>	3			A:1	90

2.1.3.2 Micro and Nano Devices

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E030761 Microphotonics [nl, en] <i>Dries Van Thourhout -- Department of Information Technology</i>	6			B:1, A:1	180
2	E030930 Biophotonics <i>Nicolas Le Thomas -- Department of Information Technology</i>	4			A:1	120
3	E008445 Sensors and Actuators <i>Herbert De Smet -- Department of Electronics and Information Systems</i>	6			A:2	180
4	E030610 Photonics [nl] <i>Günther Roelkens -- Department of Information Technology</i>	6			A:2	180
5	E900434 Technological Processes for Photonics and Electronics [nl, en] <i>Vrije Universiteit Brussel</i>	4			B:J, A:J	120
6	E092981 Biomedical Devices: Sensors, Stimulators and Drug Delivery <i>Vrije Universiteit Brussel, Johan Stiens</i>	4			A:2	120

2.1.4 Specialisation Health Care (Ghent University/Vrije Universiteit Brussel - Belgium)

Subscribe to no less than 24 credit units from the following modules.

2.1.4.1 Personalized Medicine

Nr	Course	CRDT	Ref	MT1	Session	Study
1	C003120 Physics and Chemistry of Nanostructures <i>Zeger Hens -- Department of Chemistry</i>	6			B:2	180
2	E027780 Scientific and Clinical Applications of Magnetic Nanoparticles <i>Annelies Coene -- Department of Electromechanical, Systems and Metal Engineering</i>	3			A:2	90

2.1.4.2 Neuro-engineering

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E092841 Advanced Image and Signal Processing [nl, en] <i>Stefaan Vandenberghen -- Department of Electronics and Information Systems</i>	3			B:1, A:1	90
2	E027761 Nuclear Magnetic Resonance Imaging Technology <i>Pim Pullens -- Department of Electronics and Information Systems</i>	3			A:2	90
3	E900436 Neuro-physiological Signal Processing and Network Analysis [nl, en] <i>Vrije Universiteit Brussel, Guy Nagels</i>	4			B:2, A:2	120
4	E092930 Translational Neuroscience <i>Christian Vanhove -- Department of Electronics and Information Systems</i>	3			A:2	90
5	E092960 Neural Interfaces, Neuromodulation and Minimally Invasive Neurotechnology <i>Vincent Keereman -- Department of Electronics and Information Systems</i>	3			A:2	90
6	E092970 Auditory Computation, Modelling and Devices <i>Sarah Verhulst -- Department of Information Technology</i>	3			A:2	90

2.1.4.3 Engineering (Physics) in Oncology

Nr	Course	CRDT	Ref	MT1	Session	Study
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1	E027750	Measurement Techniques in Nuclear Science <i>Vrije Universiteit Brussel, Nico Buls</i>	3	A:2	90
2	E025110	Nuclear Physics [nl, en] <i>Vrije Universiteit Brussel, Michel Sonck</i>	3	B:2, A:2	90
3	E092880	Nuclear Reactors and Cyclotrons <i>Michel Sonck -- Vrije Universiteit Brussel</i>	3		90
4	E038110	Technology of Radiotherapy <i>Werner De Gersem -- Department of Human Structure and Repair</i>	3	A:1	90
5	E027870	Medical Dosimetry <i>Vrije Universiteit Brussel, Nico Buls</i>	3	A:1	90
6	E025490	Radiologic Techniques <i>Klaus Bacher -- Department of Human Structure and Repair</i>	3	A:1	90
7	E078220	Radioprotection and Regulations [nl] <i>Vrije Universiteit Brussel, Michel Sonck</i>	3	A:2	90
8	E025470	Radiochemistry [nl] <i>Filip De Vos -- Department of Pharmaceutical Analysis</i>	3	A:2	90
9	E025480	Radiobiology and Radiopathology <i>Marc Van Eijkeren -- Department of Human Structure and Repair</i>	3	A:2	90
10	E092852	Contrast Agents and Biomarkers for Imaging and Therapy <i>Christian Vanhove -- Department of Electronics and Information Systems</i>	3	A:1	90

2.2 Elective Courses Rijksuniversiteit Groningen (the Netherlands)

In accordance with the student's mobility scheme. Subject to approval by the faculty.

- In year 1: 5 credits from the elective course list of Groningen (module 2.2.1), with reference a.
- In year 2: 1 specialisation (25 credits) and 5 credits from the elective course list of Groningen (module 2.2.1), depending on the specialisation (reference b = specialisation Biomaterials and reference c = specialisation Medical Physics)

2.2.1 Elective Courses Rijksuniversiteit Groningen (the Netherlands)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900379 Electronics <i>Rijksuniversiteit Groningen, P. Rudolf -- University of Groningen</i>	5	a	1	A:1	150
2	E900380 Colloids and Interface Science <i>Rijksuniversiteit Groningen, W. Norde -- University of Groningen</i>	5	a	1	A:1	150
3	E900386 Mechatronics <i>Rijksuniversiteit Groningen, Bayu Jayawardhana -- University of Groningen</i>	5	b	2	A:1	150
4	E900387 Regenerative Medicine <i>Rijksuniversiteit Groningen, M.C. Harmsen -- University of Groningen</i>	5	b	2	A:1	150
5	E900392 Optical Measurements in Medicine <i>Rijksuniversiteit Groningen, R. Graaff -- University of Groningen</i>	5	c	2	A:1	150
6	E900393 MR Physics <i>Rijksuniversiteit Groningen, R.J. Renken -- University of Groningen</i>	5	c	2	A:1	150
7	E900394 Advanced Imaging Techniques (CT) <i>Rijksuniversiteit Groningen, M.J.W. Greuter -- University of Groningen</i>	5	c	2	A:1	150
8	E900395 Scientific Visualisation <i>Rijksuniversiteit Groningen, A.C. Telea -- University of Groningen</i>	5	c	2	A:1	150
9	E900386 Mechatronics <i>Rijksuniversiteit Groningen, Bayu Jayawardhana -- University of Groningen</i>	5	c	2	A:1	150

2.2.2 Specialisation Biomaterials (Rijksuniversiteit Groningen - the Netherlands)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900381 Surface Characterisation <i>Rijksuniversiteit Groningen, H.J. Busscher -- University of Groningen</i>	5		2	A:1	150
2	E900382 Interface Biology <i>Rijksuniversiteit Groningen, T.G. van Kooten -- University of Groningen</i>	5		2	A:1	150
3	E900383 Recent Developments <i>Rijksuniversiteit Groningen, H. C. van der Mei -- University of Groningen</i>	5		2	A:1	150
4	E900384 Integrated Lab Course Biomaterials <i>Rijksuniversiteit Groningen, Bastiaan P. Krom -- University of Groningen</i>	5		2	A:1	150
5	E900385 Master Project: Introduction Research / Design Project and Project Proposal	5		2	A:1	150

2.2.3 Specialisation Medical Physics (Rijksuniversiteit Groningen - the Netherlands)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900388 Principles of Measuring Systems <i>Rijksuniversiteit Groningen, J.M.J. van der Walle -- University of Groningen</i>	5		2	A:1	150
2	E900389 Radiation Physics <i>Rijksuniversiteit Groningen, M.A. Hofstee -- University of Groningen</i>	5		2	A:1	150
3	E900390 Nuclear Medicine: SPECT and PET <i>Rijksuniversiteit Groningen, A.M.J. Paans -- University of Groningen</i>	5		2	A:1	150
4	E900391 Medical Physics and Radition Oncology <i>Rijksuniversiteit Groningen, H. Meertens -- University of Groningen</i>	5		2	A:1	150
5	E900385 Master Project: Introduction Research / Design Project and Project Proposal <i>Rijksuniversiteit Groningen, T.R. Koiter -- University of Groningen</i>	5		2	A:1	150

2.3 Keuzeopleidingsonderdelen Rhenisch-Westphalian Technical University of Aachen (Germany)

In accordance with the student's mobility scheme. Subject to approval by the faculty.

In year 2: 1 specialisation (30 credits).

2.3.1 Specialisation Artificial and Bioartificial Organs (Rhenisch-Westphalian Technical University of Aachen - Germany)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900409 Cell Culture and Tissue Engineering <i>RWTH Aachen University, Wilhelm Jahnke-Dechent</i>	4		2	A:1	120
2	E900421 Practical Course Cell Culture and Tissue Engineering <i>RWTH Aachen University, N. N.</i>	3		2	A:1	90
3	E900411 Bioanalytics <i>RWTH Aachen University, N. N.</i>	3		2	A:1	90
4	E900412 Artificial Organs and Implants / Assist Devices <i>RWTH Aachen University, Mottaghy</i>	6		2	A:1	180
5	E900413 Biomedical Sensors and Microsystems <i>RWTH Aachen University, Wilfried Mokwa</i>	4		2	A:1	120
6	E900414 Intellectual Property Right and Regulatory Affairs <i>RWTH Aachen University, Dominik Gross</i>	2		2	A:1	60
7	E900415 Image Processing and Management <i>RWTH Aachen University, Thomas Deserno</i>	3		2	A:1	90
8	E900416 Image Guided Therapy / Navigation / Robotics <i>RWTH Aachen University, Thomas Schmitz-Rode</i>	5		2	A:1	150

2.4 Elective Courses Czech Technical University of Prague (Czech Republic)

In accordance with the student's mobility scheme. Subject to approval by the faculty.

• In year 1: 6 credits from the elective course list Praag (module 2.4.1).

• In year 2: 1 specialisation (27 credits) and 3 credits from the elective course list Praag (module 2.4.1, only courses with reference a).

2.4.1 Elective Courses Czech Technical University of Prague (Czech Republic)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900338 Czech for Foreigners I [en, cs] <i>Czech Technical University in Prague, Hana Rogalewiczová</i>	3	a		A:1	90
2	E900339 English Language III <i>Czech Technical University in Prague, Eva Motyčková</i>	3	a		A:1	90
3	E900347 Czech for Foreigners II [en, cs] <i>Czech Technical University in Prague, Hana Rogalewiczová</i>	3			A:2	90
4	E900348 Presenting One's Results in English <i>Czech Technical University in Prague, Vladimír Rogalewicz</i>	3			A:2	90

2.4.2 Specialisation Medical Instrumentation (Czech Technical University of Prague - Czech Republic)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900349 Electromagnetic Field in Medicine <i>Czech University of Life Sciences Prague (formerly of Agriculture), Jan Vrba</i>	5		2	A:1	150
2	E900350 Medical Devices & Equipment II <i>Czech Technical University in Prague, Karel Roubík</i>	5		2	A:1	150

3	E900351	Design & Construction of Medical Devices / Practical Exercises <i>Czech Technical University in Prague, Jiri Hozman</i>	2	2	A:1	60
4	E900352	Clinical Laboratory Instrumentation <i>Czech Technical University in Prague, Jiří Kukačka</i>	4	2	A:1	120
5	E900353	Equipment for Anaesthesiology and Resuscitation <i>Czech Technical University in Prague, Karel Roubík</i>	4	2	A:1	120
6	E900354	Laser Applications in Biomedicine <i>Czech University of Life Sciences Prague (formerly of Agriculture), Helena Jelínková</i>	2	2	A:1	60
7	E900355	Diploma Thesis Proposal <i>Czech Technical University in Prague, N. N.</i>	5	2	A:1	150

2.4.3 Specialisation Modern Physical Methods in Biomedical Engineering (Czech Technical University of Prague - Czech Republic)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900356 Applied Optoelectronics in Medicine <i>Czech Technical University in Prague, Vladimír Blažek</i>	5		2	A:1	150
2	E900357 Biophotonics <i>Czech Technical University in Prague, Miroslav Jelínek</i>	4		2	A:1	120
3	E900358 Novel Technologies and Characterisation Methods in Biomedicine <i>Czech Technical University in Prague, Miroslav Jelínek</i>	2		2	A:1	60
4	E900359 Spectroscopy in Biology & Medicine <i>Czech Technical University in Prague, Radek Macháň</i>	2		2	A:1	60
5	E900360 Laser Technology <i>Czech Technical University in Prague, Miroslava Vrbová</i>	2		2	A:1	60
6	E900361 Nanotechnology <i>Czech Technical University in Prague, Miroslav Jelínek</i>	3		2	A:1	90
7	E900362 Ionizing Radiation Imaging <i>Czech Technical University in Prague, Stanislav Pospíšil</i>	2		2	A:1	60
8	E900363 Fiber Optics for Biomedicine <i>Czech Technical University in Prague, Marie Pospíšilová</i>	2		2	A:1	60
9	E900355 Diploma Thesis Proposal <i>Czech Technical University in Prague, N. N.</i>	5		2	A:1	150

2.4.4 Specialisation Medical Imaging Instrumentation (Czech Technical University of Prague - Czech Republic)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900356 Applied Optoelectronics in Medicine <i>Czech Technical University in Prague, Vladimír Blažek</i>	5		2	A:1	150
2	E900364 Imaging Processing and Analysis <i>Czech Technical University in Prague, Václav Hlaváč</i>	3		2	A:1	90
3	E900365 Nuclear Medicine Imaging Systems <i>Czech Technical University in Prague, Helena Trojanová</i>	2		2	A:1	60
4	E900366 Ultrasound and Doppler Imaging Systems <i>Czech Technical University in Prague, Jiri Hozman</i>	2		2	A:1	60
5	E900362 Ionizing Radiation Imaging <i>Czech Technical University in Prague, Stanislav Pospíšil</i>	2		2	A:1	60
6	E900367 Television, Thermovision and Endoscopic Imaging Systems <i>Czech Technical University in Prague, Miloš Klíma</i>	2		2	A:1	60
7	E900368 Magnetic Resonance Imaging and Impedance Tomography <i>Czech Technical University in Prague, Karel Roubík</i>	2		2	A:1	60
8	E900369 Microscopy in Medicine <i>Czech Technical University in Prague, Miroslav Jelínek</i>	2		2	A:1	60
9	E900363 Fiber Optics for Biomedicine <i>Czech Technical University in Prague, Marie Pospíšilová</i>	2		2	A:1	60
10	E900355 Diploma Thesis Proposal <i>Czech Technical University in Prague, N. N.</i>	5		2	A:1	150

2.5 Elective Courses Trinity College Dublin (Ireland)

In accordance with the student's mobility scheme. Subject to approval by the faculty.

- In year 1: 16 credits from the elective course list Trinity College Dublin (module 2.5.1), with 6 credits with reference a, and 10 credits with reference b.
- In year 2: 1 specialisation (30 credits).

2.5.1 Elective Courses Trinity College Dublin (Ireland)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900318 Cell & Tissue Engineering <i>Trinity College Dublin, Daniel Kelly</i>	3	a	1	A:	90
2	E900319 Rehabilitation Engineering <i>Trinity College Dublin, Richard Reilly</i>	3	a	1	A:	90
3	E900320 Neural Engineering <i>Trinity College Dublin, Richard Reilly</i>	3	a	1	A:	90
4	E900321 Research Methods <i>Trinity College Dublin, Ciaran Knut Simms</i>	10	b	1	A:	300
5	E900322 Research Methods with Industrial Design <i>Trinity College Dublin, Ciaran Knut Simms</i>	10	b	1	A:	300

2.5.2 Specialisation Bone and Tissue Engineering (Trinity College Dublin - Ireland)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900328 Bone Mechanics and Tissue Engineering <i>Trinity College Dublin, Daniel Kelly</i>	8		2	A:	240
2	E900329 Cartilage Mechanics and Tissue Engineering <i>Trinity College Dublin, Daniel Kelly</i>	8		2	A:	240
3	E900330 Mechanobiology <i>Trinity College Dublin, Daniel Kelly</i>	8		2	A:	240
4	E900327 Master Thesis Preparation Project <i>Trinity College Dublin, Richard Reilly</i>	6		2	A:	180

2.5.3 Specialisation Neural Engineering (Trinity College Dublin - Ireland)

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E900324 Neural Signal Analysis <i>Trinity College Dublin, Edmund Lalor</i>	8		2	A:	240
2	E900325 Clinical Neural Engineering <i>Trinity College Dublin, Richard Reilly</i>	8		2	A:	240
3	E900326 Implantable Neural Systems <i>Trinity College Dublin, Richard Reilly</i>	8		2	A:	240
4	E900327 Master Thesis Preparation Project <i>Trinity College Dublin, Richard Reilly</i>	6		2	A:	180

3 Master's Dissertation 30 credits

Nr	Course	CRDT	Ref	MT1	Session	Study
1	E091105 Master's Dissertation	30		2	B:2	900

Teaching

When a course is not taught (solely) in the programme's language of instruction, the effectively used languages are indicated in square brackets following the course name, using the following ISO codes:

bg: Bulgarian	de: German	es: Spanish	ja: Japanese	pl: Polish	sh: Croatian/Serbian	zh: Chinese
cs: Czech	el: Greek	fr: French	nl: Dutch	pt: Portuguese	sl: Slovene	
da: Danish	en: English	it: Italian	no: Norwegian	ru: Russian	sv: Swedish	

Semester

Semesters are indicated by their number (1 or 2); semester 3 represents the summer period and J indicates a course spanning semesters 1 and 2. When a capital letter precedes a semester number, the course has multiple offerings. The letter indicates the offering concerned.

When a semester is shown in brackets, the course is not offered this year in the specific offering.

The offering frequency and first year of offering are indicated by the following codes:

a: bi-annually	c: annually, from 2023-2024	f: annually, from 2024-2025	i: annually, from 2025-2026
b: tri-annually	d: bi-annually, from 2023-2024	g: bi-annually, from 2024-2025	j: bi-annually, from 2025-2026
	e: tri-annually, from 2023-2024	h: tri-annually, from 2024-2025	k: tri-annually, from 2025-2026