

Faculty of Science and Technology

Applied Physics
Biomedical Engineering
Chemical Engineering
Nanotechnology

Faculty of Engineering Technology

Civil Engineering and Management
Construction Management and Engineering
Industrial Design Engineering
Mechanical Engineering
Sustainable Energy Technology

Faculty of Electrical Engineering, Mathematics and Computer Science

Computer Science
Electrical Engineering
Human Media Interaction
Internet Science and Technology
Systems and Control

Faculty of Behavioural, Management and Social Sciences

Business Administration
Industrial Engineering and Management

Faculty of Geo-information Science and Earth Observation (ITC)

Spatial Engineering

Master: Applied Physics

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/aph/>Contact person [Dr. E.S. Kooij](#)**Track: Materials Physics**
Biophysics and Optics

Option 1

Block	code	name	EC	Remarks	minor
1.A	201700072	Science	15	Module AT9	IM
1.B	201500155	Waves, Interference and Probability	15	Module TN6	JM
2.A			15	Free choice	
2.B	201500194	Electrodynamics	6	optional in B or M; part of Module TN8	
	201700099	Bachelor Assignment	15		

Option 2

Block	code	name	EC	Remarks	minor
1.A			15	Free choice	
1.B	201500155	Waves, Interference and Probability	15	Module TN6	JM
2.A	201600067	Condensed matter physics	15	Module TN7 (in Dutch)	
2.B	201500194	Electrodynamics	6	optional in B or M; part of Module TN8	
	201700099	Bachelor Assignment	15		

Option 3

Block	code	name	EC	Remarks	minor
1.A	201700072	Science	15	Module AT9	IM
1.B	201500155	Waves, Interference and Probability	15	Module TN6	JM
2.A	201700099	Bachelor Assignment	15		
2.B	201600068	Continuum Dynamics	15	Module TN8	

Track: Fluid Physics

Block	code	name	EC	Remarks	minor
1.A	201700072	Science	15	Module AT9	IM
1.B	201500155	Waves, Interference and Probability	15	Module TN6	JM
2.A	201700099	Bachelor Assignment	15		
2.B	201600068	Continuum Dynamics	15	Module TN8	

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Business Administration

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/ba/>

Contact person [C.G.M. Röring](#)

Track: Entrepreneurship Innovation & Strategy

Track: Strategic Marketing & Business Information

Track: 2 year double degree program MSc Innovation Management & Entrepreneurship with TUBerlin

All students considering this master, please contact the BA study advisor (Charlotte Röring)

Block	code	name	EC	Remarks	minor
1.A	201700013	Strategy, Marketing & Economics	15		JM
1.B	201700014	High Tech Talent Management in a Global Context	15		IM
2.A			15	Free choice	
2.B	201700099	Bachelor Assignment	15	Module AT12	

- 1) Before the start of the academic year, communicate names of students to BA that will take these modules as premaster.

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Biomedical Engineering

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/bme/>Contact person [J. Huttenhuis](#)**Track: Neural Motor Systems**

Block	code	name	EC	Remarks	minor
1.A	201700147	Biorobotics	15	HTHT minor	
1.B					
2.A					
2.B	201700099	Bachelor Assignment	15		

Track: Imaging and Diagnostics

Block	code	name	EC	Remarks	minor
1.A					
1.B	201600198	Imaging and Diagnostics	15	BMT M10	
2.A					
2.B	201700099	Bachelor Assignment	15		

Track: Bionano

Block	code	name	EC	Remarks	minor
1.A	201400224	Cell Biology / Bio Lab Work		BMT M5 (Creating Biological Tissues 201400224)	
1.B					
2.A	201600237	Bionanotechnology & Advanced Biomanufacturing		BMT M11 (Bionanotechnologie en Weefselregeneratie)	
2.B	201700099	Bachelor Assignment	15		

Track: Biorobotics

Block	code	name	EC	Remarks	minor
1.A	201700147	Biorobotics	15	HTHT minor	
1.B					
2.A					
2.B	201700099	Bachelor Assignment	15		

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Civil Engineering and Management

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/cem/>Contact person [E.M. Blokhuis](#)**Track: Construction**

Block	code	name	EC	Remarks	minor
1.B/2.B	201400145	Sustainable Civil Engineering (CE6)/Design of constructions (CE4)	15	English	JM

For certain choices it is possible to do CE M11 as preparation for the Bachelor Assignment. Overlap for knowlegde production can be accommodated...

Track: Water

Block	code	name	EC	Remarks	minor
1.A	201400144	Veiligheid en Risico's in Delta's (CE5)	15	English/Dutch	JM

Track: Transportation

Block	code	name	EC	Remarks	minor
2.A	201300145	Traffic and Transport (CE3)	15	English With a suitable replacement for Math C1	

Track: Integrated Civil Engineering Systems

Block	code	name	EC	Remarks
1.A	201700181	Veiligheid & Risico's in Delta's (CE5)	15	English / Dutch
1.B	201400145	Sustainable Civil Engineering (CE6)	15	English / Dutch
2.A	201600251	Gebiedsontwikkeling (CE7)	15	English / Dutch

In consultation with programme staff the most suitable minor will be determined.

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Construction Management and Engineering (3TU)

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/cem/>Contact person [E.M. Blokhuis](#)**Track:** -

Block	code	name	EC	Remarks	minor
1.B	201400145	Sustainable Civil Engineering (CE6)	15	English (according to minor matrix 2016/2017)	JM
		1 of the following 3			
1.A	201400144	Veiligheid en Risico's in Delta's (CE5)	15	English/Dutch (according to minor matrix 2016/2017)	JM
2.A	201400146	Gebiedsontwikkeling (CE7)	15	Dutch	
2.B	201400147	Modelling and Analysis of Stochastic Processes (CE8)	15	English	
2.A or 2.B	201700099	Bachelor Assignment	15		

For certain choices it is possible to take CE M11 as preparation for the Bachelor Assignment. Overlap for knowledge production can be accommodated...

Master: Chemical Engineering

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/che/>Contact person [A.S. Elbersen - Grote](#)**Track: Chemical and Process Engineering**

Block	code	name	EC	Remarks	Minor
B2 1.B	193902810	Physical Chemistry	5	Part of module AT6a	Minor
B3 1.A	201500151	Basics for Process Design	3	Required! Extra selfstudy course in preparation of module ST8	JM/HM/IM
	201500098	Industrial Processes (optional)	15	Optional! If Interfaces and Catalysis was taken in module AT6 replace with Process Technology.	
B3 1.B	201400162	Transport Phenomena	15	Module ST6	JM
B3 2.A	201700099	Bachelor Assignment	15	Module AT12	
B3 2.B	201400164	Process Design	15	Module ST8a	

Track: Molecular and Materials Engineering*

Option 1

Block	code	name	EC	Remarks	Minor
B2 1.B	201700097	Materials Science and Engineering	15	Module AT6a	Minor
B3 1.A	201700072	Science	15	Module AT9	IM
B3 1.B			15	Free Choice	IM
B3 2.A			15	Free Choice	
B3 2.B	201700099	Bachelor Assignment	15	Module AT12	

* For an orientation towards organic chemistry, please contact the study advisor

Option 2

Block	code	name	EC	Remarks	Minor
B3 1.A	201700072	Science	15	Module AT9	IM
B3 1.B	201700097	Materials Science and Engineering	15	Module AT6a	IM
B3 2.A			15	Free Choice	
B3 2.B	201700099	Bachelor Assignment	15	Module AT12	

* For an orientation towards organic chemistry, please contact the study advisor

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Computer Science

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/csc/>

Contact person [Drs. M. van Grinsven](#)

Track: Cyber Security

Block	code	name	EC	Remarks	minor
1.A	201400210	Computer Systems (CS5)	15		JM/HM/IM
1.B	201700117	Software Systems (CS2, optional)	12	Math B2 replaced by Introduction to Mathematical Analysis (3EC) or 192140200 Algorithms, Data structures, Complexity (5EC)	JM
1.B	201400385	Introduction to Mathematical Analysis	3	replacement for Math B2	
2.A	201600197	Network Systems (EE7)	15		
2.B	201700099	Bachelor Assignment	15	Module AT12	

Track: Data Science & Technology; Software Technology

Block	code	name	EC	Remarks	minor
1.A	201400210	Computer Systems (CS5, optional)	15	Optional module	JM/HM/IM
1.B	201700117	Software Systems (CS2)	12	Math B2 replaced by Introduction to Mathematical Analysis (3EC) (or 192140200 if T12 + T15, not in combination with T17)	JM
1.B	201400385	Introduction to Mathematical Analysis	3	replacement for Math B2	
2.A	201700304	Discrete Structures and Efficient Algorithms (CS7)	15		
2.B	201700099	Bachelor Assignment	15	Module AT12	

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Electrical Engineering

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/mee/>Contact person [Dr. M.J. Korsten](#)**Chairs: Nano Electronics (NE)****Semiconductor Components (SC)****Integrated Optical Systems (IOS)**

Block	code	name	EC	Remarks	minor
1.A	201700072	Science	15	Module AT9	IM
1.B			15	Free choice	JM/HM
2.A	201400430	Device Physics	15	Module EE7 without quantum physics; with ...	
2.B	201700099	Bachelor Assignment	15	Module AT12	

Chairs: Biomedical and Environmental Sensorsystems (BIOS)**Transducer Science and Technology (TST)**

Block	code	name	EC	Remarks	minor
1.A	201700072	Science	15	Module AT9	IM
1.B	201700076	Systems and Control - AT	15		IM
2.A			15	Free choice	
2.B	201700099	Bachelor Assignment	15	Module AT12	

Chairs: Telecommunication Engineering (TE)**Integrated Circuit Design (ICD)****Computer Architecture for Embedded Systems (CAES)****Services, Cybersecurity and Safety (SCS)**

Block	code	name	EC	Remarks	minor
1.A	201400217	Computer Systems	10	Module EE5 without Diff.&diff. Eq. Part	JM
		Computer Architecture and Organisation (3 EC; 201400342)		part of module EE5 (201400217)	
		Digital Hardware (3EC; 201400361)		part of module EE5 (201400217)	
		Project Computer Systems (4 EC; 201400366)		part of module EE5 (201400217)	
	192191500	Self-tuition Project CSc (5 EC)	5	C-programming (replacement for Diff. & Diff. Equations part of module EE5)	
1.B			15	Free choice	JM/HM
2.A	201700099	Bachelor Assignment	15	Module AT12	
2.B	201400432	Signal Processing and Communications	15	Module EE8	

Chairs: Robotics and Mechatronics (RaM)**Biomedical Signals and Systems (BSS)**

Block	code	name	EC	Remarks	minor
1.A	201400217	Computer Systems	10	Module EE5 without Diff.&diff. Eq. Part	JM
		Computer Architecture and Organisation (3 EC; 201400342)		part of module EE5 (201400217)	
		Digital Hardware (3EC; 201400361)		part of module EE5 (201400217)	
		Project Computer Systems (4 EC; 201400366)		part of module EE5 (201400217)	
	192191500	Self-tuition Project CSc (5 EC)	5	C-programming + project (replacement for Diff. & Diff. Equations part of module EE5)	
1.B	201700076	Systems and Control - AT	15	Module AT6c	JM
2.A			15	Free choice	
2.B	201700099	Bachelor Assignment	15	Module AT12	

Chairs: Design and Analysis of Communication Systems (DACs)

Block	code	name	EC	Remarks	minor
1.A	201400217	Computer Systems	10	Module EE5 without Diff.&diff. Eq. Part	JM
		Computer Architecture and Organisation (3 EC; 201400342)		part of module EE5 (201400217)	
		Digital Hardware (3EC; 201400361)		part of module EE5 (201400217)	
		Project Computer Systems (4 EC; 201400366)		part of module EE5 (201400217)	
	192191500	Self-tuition Project CSc (5 EC)	5	C-programming (replacement for Diff. & Diff. Equations part of module EE5)	
1.B			15	Free choice	JM/HM
2.A	201600197	Network Systems	15	Module EE7	
2.B	201700099	Bachelor Assignment	15	Module AT12	

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Human Media Interaction

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/hmi/>Contact person [Drs. M. van Grinsven](#)**Track:** -

Block	code	name	EC	Remarks	minor
1.A	201300070	Pearls of Computer Science (CS1)	15	Math A+B1 replaced with something suitable*	JM
1.B	201500111	Software Systems (CS2)	15	Math B2 replaced something suitable**	JM
2.A		Free choice	15		
2.B	201700099	Bachelor Assignment	15	Module AT12	

* Introduction to Mathematical Analysis (201600167; 4EC)

** Introduction to Mathematical Analysis (201400385; 3EC)

** or contact programme for possibly Algorithms, data structures and complexity or artificial intelligence, both 5EC.

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Industrial Design Engineering

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/ide/>Contact person [A.F. Heutink](#)**Track:** -

Block	code	name	EC	Remarks	minor
1.A	201600057	Introduction Industrial Design Engineering	1	ID1	-
	201400443	Technical Product Modelling	2	ME1	
	201400403	Design Sketching 1	2,5	ID1	
	201500232	Production 3	2,5	ID5	
	201400404	Physical Ergonomics	2	ID5	
	201400405	Project Human-Product Relations	7,5	ID5	
1.B	201400406	Discovery	2,5	ID2	-
	201400470	Production 1	2,5	ID2	
	201400407	Graphic Design	2,5	ID6	
	201400413	Project Consumer Products	7,5	ID6	
2.A		Free Choice	15		
2.B	201700099	Bachelor Assignment	15		

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Industrial Engineering and Management

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/iem/>Contact person [M.G. van der Meulen](#)**Track: Financial Engineering**

Block	code	name	EC	Remarks	minor
1.A	201500020	Financial engineering for premaster IEM	10		
	191530420	Probability Theory and Statistics	5		
1.B		Free choice	15		JM/HM
2.A		Free choice	15		
2.B	201700099	Bachelor Assignment	15	Module AT12	

**Track: Production and Logistics Management
Health Care Technology and Management**

Block	code	name	EC	Remarks	minor
1.A	201500012	OR Models for the premaster IEM	10		
	191530420	Probability Theory and Statistics	5		
1.B		Free choice	15		JM/HM
2.A		Free choice	15		
2.B	201700099	Bachelor Assignment	15	Module AT12	

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Internet Science and Technology

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/ist/>Contact person [Drs. M. van Grinsven](#)

Block	code	name	EC	Remarks	minor
1.A	201400210	Computer Systems (CS5, optional)	15	one of two	JM/HM/IM
1.B	201700117	Software Systems (CS2, optional)	12	one of two, Math B2 replaced by Introduction to Mathematical Analysis (3EC) or 192140200 Algorithms, Data structures, Complexity (5EC)	JM/HM/IM
1.B	201400385	Introduction to Mathematical Analysis	3	replacement for Math B2	
2.A	201600197	Network Systems (EE7)	15		
2.B	201700099	Bachelor Assignment	15	Module AT12	

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Mechanical Engineering

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/me/>Contact person [K.G.M. Braakhuis](#)**Track: Design Production and Management (DPM)****Mechanics of Solids, Surfaces and Systems (MS3)****Biomechanical Engineering (BE)****Maintenance Engineering and Operations (MEO)****Thermal and Fluid Engineering (TFE)**

Option 1 (preferred by the ME programme)

Block	code	name	EC	Remarks	minor
1.A	201500061	BioRobotics	15		HM
1.B	201500050	Aeronautical Engineering: Aircraft Engineering	15		HM
2.A	201400311	Introduction Finite Elements - PB	3,5	premaster course; part of module 11 WB	
	201500391	Fluid Mechanics 1 - PB	3,5	premaster course; part of module 7 WB	
	201500390	Heat Transfer - PB	3,5	premaster course; part of module 7 WB	
	1 of the following 2				
	201500395	Introduction Mechanical Engineering	5	premaster course; can also be done in master	
	201400649	Preparation Bachelor Assignment AT	4	year course	
2.B	201700099	Bachelor Assignment	4	Module AT12	
	201700099	Bachelor Assignment	11	Module AT12	
		Stiffness and Strength*	3,5	premaster course; part of module 4 WB	
	201500496	Dynamics 2 - PB	4,5	premaster course; part of module 8 WB	

* module Aeronautical Engineering gives exemption for Stiffness and Strength

Option 2

Block	code	name	EC	Remarks	minor
1.A		Free choice			JM/HM
1.B	201700076	Systems and Control - AT	15	Module AT6c	JM
2.A	201400311	Introduction Finite Elements - PB	3,5	premaster course; part of module 11 WB	
	201500391	Fluid Mechanics 1 - PB	3,5	premaster course; part of module 7 WB	
	201500390	Heat Transfer - PB	3,5	premaster course; part of module 7 WB	
	Optional courses				
	201500395	Introduction Mechanical Engineering	5	premaster course; can also be done in master	
	201400649	Preparation Bachelor Assignment AT	4	year course	
2.B	201700099	Bachelor Assignment	4,5	Module AT12	
	201700099	Bachelor Assignment	7	Module AT12	
	unknown	Stiffness and Strength	3,5	premaster course; part of module 4 WB	
	201500496	Dynamics 2 - PB	4,5	premaster course; part of module 8 WB	
3.A	201700099	Bachelor Assignment	3,5	part of bachelor assignment in vacation period	

* There are other options available. For instance,

- ST module 6 in block 1B can be used to replace Fluid Mechanics and Heat Transfer in block 2A.

- taking Aircraft Engineering in block 1B gives exemption for Stiffness and Strength in block 2B.

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Nano Technology

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/nt/>Contact person [A.S. Elbersen - Grote](#)**Track:** -

Block	code	name	EC	Remarks	minor
B2 1.B	201700097	Materials Science and Engineering	15	Module AT6a	
B3 1.A	201700072	Science	15	Module AT9	IM
B3 1.B	201500054	Lab on a Chip	15	optional	IM
B3 2.A	201700098	Micro System Design & Realization	15	optional (Module AT M11)	
B3 2.B	201700099	Bachelor Assignment	15		

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Systems and Control (3TU)

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/sc/>Contact person [Dr. M.J. Korsten](#)**Track: Robotics and Mechatronics**

Block	code	name	EC	Remarks	minor
1.A		Free choice	15		JM/HM
1.B	201700076	Systems and Control - AT	15	Module AT6c	IM
2.A	201500391	Fluid Mechanics 1 - PB	3,5	premaster course; part of module WB7	
	201500390	Heat Transfer - PB	3,5	premaster course; part of module WB7	
	From the following: 1 of 2				
	201500395	Introduction Mechanical Engineering	5	premaster course	
	201400649	Preparation BSc AT	4	year course	
	201700099	Bachelor Assignment	4		
2.B	201700099	Bachelor Assignment	11		
	201500496	Dynamics 2	4,5	premaster course; part of module WB8	

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Spatial Engineering

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/education/master/programmes/spatial-engineering/>Contact person [Drs. T.R. Luiten MBA](#)**Track:** -

Block	code	name	EC	Remarks	minor
1.A		Geographic Information Systems	15	BMS-HM-GINS-15	HM
1.B		Earth Observation	15	BMS-HM-EART-15	HM
2.A		Free choice	15		
2.B		Bachelor Assignment	15		

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module

Master: Sustainable Energy Technology

Admission requirements 2017/2018

Webpage <https://www.utwente.nl/en/set/>Contact person [K.G.M. Braakhuis](#)

Track: -

There is not a strict set of modules or courses required to be admissible for the SET master's programme.**This overview contains modules and courses that can be taken as a good preparation for the SET master's programme.**

Block	code	name	EC	Remarks	minor
1.A	201500061	BioRobotics	15	TNW-HM-BROB-15	HM
	201500003	From Science to Society: From Idea to Prototype	15	CTW-HM-STS1-15: Energy theme HM	HM
	201600007	Innovations in Sustainable Chain Management: Analysis	15	TNW-HM-ISCA-16	HM
1.B	201500050	Aircraft Engineering	15	CTW-HM-AIRE-15	HM
	201600136	Smart ways to make SMART cities SMARTER	15	CTW-HM-SMAR-1	HM
	201500064	Materials for the design of the future	15	TNW-HM-MADF-15	HM
	201500004	From Science to Society: From Prototype to Society	15	TW-HM-STS2-15: Energy theme	HM
	201400162	Transport Phenomena	15	TNW-JM-TPV-15/Module ST6	JM
	201600008	Innovations in Sustainable Chain Management: Design	15	TNW-HM-ISCD-16: Energy track	HM
2.A	201500321	Fluid Mechanics and Heat Transfer	15	Module WB7 / overlap with Module ST6	
2.B	201700099	Bachelor Assignment	15	Module AT12	

IM: in-depth minor module

JM: Join-in Minor module

HM: High Tech/Human Touch Minor module