

TU Delft English courses available to incoming exchange students 2018-2019

The following document contains the courses available to exchange students. The document serves only as an indication, no rights can be derived from this list. This list is subject to change without notice. The most recent course information can be found at www.studyguide.tudelft.nl. In the case of conflicting information, the study guide is leading.

Course selection guidelines

You must take the majority of your courses at the faculty of your exchange. The minimum course load is 24 ECTS for a semester or 48 ECTS for a full year. A typical course load is 30 ECTS per semester or 60 ECTS for a full year. Divide the selected credits evenly over the 2 or 4 periods of your exchange.

At the TU Delft the academic year has been divided into four periods by most faculties. Periods 1 and 2 correspond to the fall semester, periods 3 and 4 correspond to the spring semester. If this is the case, the section "period" will be followed by Q (quarter). Some faculties divide the year in 8 periods of education. In this case, "period" will be joined by an O (octal), which are half of a quarter.

Minor

A minor is a well-rounded package of courses on one main topic. In the first semester of the 3rd year all TU Delft BSc students choose a Minor. BSc students who come to TU Delft in the Autumn semester during their BSc phase or third year of their studies can choose a minor package. The advantage is that they will not encounter scheduling problems and will work together with other (Dutch) students in a group. Some of the courses in the minor programmes can be taken separately.

English BSc and MSc courses available for exchange students				
Faculty of Aerospace Engineering				
Course Code	Course Name	Cat.	EC	Period (Q)
Propaedeutic (1st Year)				
AE1108-I	Aerospace Materials	BSc	3	2
AE1108-II	Aerospace Mechanics of materials	BSc	3	3
AE1110-I	Introduction to Aerospace Engineering I	BSc	5	1
AE1110-II	Introduction to Aerospace Engineering II	BSc	4	2
AE1130-I	Statics	BSc	4	1
AE1130-II	Dynamics	BSc	3	2
AE1205	Programming and Scientific Computing in Python for Aerospace I	BSc	2	4
AE1222-II	Aerospace Design and Systems Engineering Elements	BSc	4	3,4
AE1111-II	Engineering Drawing	BSc	2	1,2
AE1240-I	Thermodynamics	BSc	3	3
AE1240-II	Waves and electromagnetism	BSc	3	4
WI1402LR	Calculus II	BSc	5	3
WI1403LR	Linear Algebra	BSc	5	4
WI1421LR	Calculus I	BSc	6	1,2
WI1402LR	Calculus II	BSc	5	3
Head Phase 2nd Year				
AE2111-II	Aerospace Design and Systems Engineering Elements	BSc	3	1
AE2130-I	Aerodynamica I	BSc	3	1
AE2130-III	Aerodynamics II	BSc	3	2
AE2135-I	Structural Analysis and Design	BSc	5	2
AE2135-II	Vibrations	BSc	3	2
AE2220-I	Applied Numerical Analysis	BSc	3	3
AE2220-II	Computational Modeling	BSc	3	4
AE2223-II	Experimental Research and Data Analysis	BSc	3	3
AE2230-I	Flight and Orbital Mechanics	BSc	4	3
AE2230-II	Propulsion and Power	BSc	4	3
AE2235-I	Aerospace Systems and Control Theory	BSc	4	4
AE2235-II	Instrumentation and Signals	BSc	3	4
WI2180LR-I	Differential Equations	BSc	4	1
WI2180LR-II	Probability and Statistics	BSc	4	1
3rd Year Major				
AE3211-I	Systems Engineering & Aerospace Design	Bsc	3	3
AE3211-II	Production of Aerospace Systems	BSc	3	3
AE3212-I	Aerospace Flight Dynamics and Simulation EXCL. Test Flight for Exchange students	Bsc	5	3
AE3W02TU	Introduction to Wind Energy	Bsc	4	2
NEW Minor Offshore Wind Energy – only full minor, limited places available, please first contact exchange-ae@tudelft.nl				
AE3514	Introduction to Wind Energy	Minor		
AE3511	Operations Maintenance and Safety on site	Minor		
AE3512	Asset Management	Minor		
AE3513	Assignment	Minor		
CT3101	Project Management Basics	Minor		
TB221A	Economics of Infrastructure			
TBxxxx	Economics of offshore wind energy	Minor		
Minor Spaceflight – only full minor, limited places available, please contact exchange-ae@tudelft.nl				
AE3530	Spaceflight - a Technical Primer	Minor	3	1
ET3604LR	Electronic Circuits	Minor	3	1
AE3531	Space Exploration	Minor	7	1
AE3534	Spacecraft Technology	Minor	5	2
AE3535-16	Satellite Tracking and Communication	Minor	4	1,2
AE3537	Spaceflight Assignment	Minor	7	2
CT3532	Earth Observation	Minor	4	1
MSc Aerospace Engineering - Electives				
Code	Course Name	Cat.	EC	Period
AE4115	Experimental simulations	MSc	3	3,4
AE4117	Fluid-Structure interaction	MSc	4	2
AE4120	Viscous flows	MSc	3	2
AE4130	Aircraft aerodynamics	MSc	3	1,2
AE4135	Rotor/wake aerodynamics	MSc	4	3,4

Aerospace Engineering

AE4136	CFD 2: Discretization techniques	MSc	2	2
AE4137	CFD 3: Large Eddy Simulation	MSc	2	3
Code	Course Name	Cat.	EC	Period
AE4138	CFD 4: Special topics	MSc	2	4
AE4140	Gas dynamics I	MSc	3	1
AE4143	Hypersonic aerodynamics	MSc	3	2,3
AE4180	Flow measurement techniques	MSc	3	3,4
AE4202	CFD for aerospace engineers	MSc	3	1
AE4203	Gas turbine simulation / application	MSc	3	3,4
AE4204	Knowledge Based Engineering	MSc	4	3
AE4205	MDO for aerospace applications	MSc	4	1
AE4206	Turbomachinery	MSc	3	3
AE4238	Aero Engine Technology	MSc	4	1,2
AE4240	Advanced aircraft design I	MSc	4	1
AE4245	Advanced aircraft design II	MSc	4	3
AE4260	Experimental Aeroacoustics (track 1 elective)	MSc	4	1
AE4261	Internal Flows (track 5)	MSc	3	2
AE4262	Combustion for propulsion and power technologies (track 5)	MSc	4	3
AE4263	Modeling, Simulation and Applications of P&P Systems (track 5)	MSc	5	3
AE4264	Measurements and Diagnostics in Reacting Flows (track 5 elective)	MSc	3	3
AE4265	Space embedded Systems (track 3 elective)	MSc	3	3,4
AE4268	Capita Selecta	MSc	4	4
AE4269	Space-Plane Conceptual Design (track 3 elective)	MSc	4	1
AE4270	Control and Operations Project (track 2 elective)	MSc	4	1
AE4301	Automatic Flight Control Systems Design	MSc	3	1
AE4301P	Exercise Automatic Flight Control System Design	MSc	1	2
AE4302	Avionics and operations	MSc	3	1
AE4304	Stochastic Aerospace Systems	MSc	3	2
AE4304P	Stochastic Aerospace Systems Practical	MSc	1	3
AE4311	Advanced flight control	MSc	4	4
AE4313	Spacecraft attitude Dynamics and control	MSc	3	3
AE4313P	Spacecraft Attitude Dynamics & Control Exercise	MSc	1	3
AE4314	Rotorcraft Mechanics and Design	MSc	3	4
AE4314P	Rotorcraft Mechanics & Design Practical	MSc	1	4
AE4315	Advanced Dynamics	MSc	3	4
AE4316	Aerospace Human-Machine Systems	MSc	4	2
AE4317	Autonomous Flight of Micro Air Vehicles	MSc	4	3
AE4318	Supervisory Control and Cognitive Systems	MSc	2	3
AE4319	Manual Control Cybernetics	MSc	2	4
AE4320	System Identification of Aerospace Vehicles	MSc	4	3
AE4321-15	Air traffic management	MSc	4	2,3
AE4322	Piloted Flight Simulation	MSc	4	3
AE4323	Real-time Distributed Flight and Space Simulation	MSc	3	4
AE4422-16	Agent-based modelling and simulation in Air Transport	MSc	4	3
AE4423	Airline Planning & Optimization	MSc	4	2
AE4424	Network Scheduling	MSc	3	3
AE4431	Aircraft noise and emissions	MSc	3	2
AE4441-16	Operations optimisation	MSc	4	1
AE4446	Airport Operations	MSc	4	3
AE4447	Aircraft Performance Optimization	MSc	3	2
AE4447p	Aircraft Performance Optimization practical	MSc		3
AE4448	Agent-based safety risk analysis	MSc	4	2,3
AE4454-16	Life Cycle Analysis and Production	MSc	3	3
AE4462-17	Aircraft Emissions and Climate Effects	MSc	4	3
AE4463-17	Advanced Aircraft Noise Modeling and Measurement	MSc	4	3
AE4465	Maintenance Modeling & Analysis	MSc	4	1
AE4466	Monte Carlo simulation of stochastic processes II	MSc	3	2
AE4467	Numerical Methods for Aircraft Performance Analysis	MSc	3	3
AE4468	Airline maintenance operations	MSc	3	3
AE4499	Space Project	MSc	3	1,2
AE4866	Propagation and Optimization in Astrodynamics (track 3 elective)	MSc	4	3
AE4867	Numerical Astrodynamics (track 3 elective)	MSc	2	2
AE4870A	Rocket Motion	MSc	3	1
AE4870B	Re-entry Systems	MSc	3	1
AE4872	Satellite Orbit Determination	MSc	6	1,2

Aerospace Engineering

AE4874-I	Astrodynamics I	MSc	4	1
AE4874-II	Astrodynamics II	MSc	4	3
Code	Course Name	Cat.	EC	Period
AE4876-11	Planetary Sciences II	MSc	4	3
AE4878	Mission Geometry and Orbit Design	MSc	4	2,3
AE4880	Space instrumentation	MSc	4	3
AE4890-11	Planetary sciences I	MSc	4	2
AE4ASM001	Design of lightweight structures I: Composites & Metals	MSc	3	1
AE4ASM002	Designing Materials with Aerospace Specific Properties	MSc	3	1
AE4ASM004	Manufacturing of Aerospace Structures & Materials	MSc	3	1
AE4ASM005	Fatigue of Structures & Materials	MSc	3	1
AE4ASM101TU	Polymer Science	MSc	5	2
AE4ASM102	Advanced Alloys	MSc	3	2
AE4ASM103	Functional Coatings	MSc	3	4
AE4ASM104	Sensor Materials	MSc	3	3
AE4ASM106	Stability & Analysis of Structures I	MSc	3	2
AE4ASM107	Joining Methods	MSc	3	2
AE4ASM108	Experimental Techniques & NDT	MSc	3	2
AE4ASM109	Design & Analysis of Composite Structures I	MSc	5	3
AE4ASM501	Design of Lightweight Structures II	MSc	3	3
AE4ASM503	Sheet Metal Forming	MSc	3	3
AE4ASM504	Structural Integrity and Maintenance	MSc	3	3
AE4ASM506	Aeroelasticity	MSc	3	3
AE4ASM507	Adaptive Aerospace Structures	MSc	3	3
AE4ASM508	Design of Self-healing materials	MSc	3	4
AE4ASM510	Design & Analysis of Composite Structures II	MSc	3	4
AE4ASM511	Stability & Analysis of Structures II	MSc	3	3
AE4ASM514TU	Continuum Mechanics	MSc	4	3
AE4ASM515	Materials Characterization	MSc	3	4
AE4ASM516	Material Selection for Mechanical Design	MSc	3	3
AE4ASM518	Flow measurement techniques	MSc	3	3,4
AE4S06	Spacecraft mechatronics	MSc	4	1
AE4S06P	Spacecraft Mechatronics Exercise	MSc	1	2
AE4S10	Microsat engineering	MSc	4	3
AE4S12	Space systems engineering	MSc	3	1,2
AE4S12E	Exercise Space Systems Engineering	MSc	2	3
AE4T40	Airborne Wind Energy	MSc	3	1,2
AE4W09	Wind Turbine Design	MSc	5	3,4
AE4W13	Site Conditions for Wind Turbine Design	MSc	3	3,4
AE4W21-14	Wind Turbine Aeroelasticity	MSc	2	4
ME45000	Advanced Heat Transfer	MSc	3	1
WI2056LR	Systeemtheorie LR	MSc	4	1
WI3150TU	Partial Differential Equations A	MSc	3	1
WM0324LR**	Ethics and Engineering for Aerospace Engineering**	MSc	3	2,3

* Please inform us at exchange-ae@tudelft.nl if you are taking this course

** This course can be taken in period 2 or 3, course only lasts 1 period.

Starting period from/to

1 - semester I September 4, 2018 - November 9, 2019

2 - semester I November 12, 2018 - February 1, 2019

3 - semester II February 4, 2019 - April 18, 2019

4 - semester II April 23, 2019 - July 5, 2019

BSc students can take MSc courses as long as they have met the pre-requisites as stated in the course description of the TU Delft study guide.

Please note that the following courses (projects) are **not available for Exchange Students**:

AE1111-I Exploring Aerospace Engineering

AE1222-I Design and Construction

AE2111-I Systems Design

Aerospace Engineering

AE2130-II	Low-Speed Windtunnel Test
AE2223-I	Test, Analysis & Simulation
AE3212-II	Simulation, Verification & Validation
AE3200	Design Synthesis
AE4ASM003	Linear Modelling
AE4ASM105	Trinity Exercise
AE4ASM505	Non-Linear Modeling (using F.E.M.)
AE4ASM512	Aerospace Structures and Materials Industry Best Practice
AE4ASM513	Forensic Engineering
AE4ASM517	Aircraft Manufacturing Laboratory
AE4010	Research Methodologies
AE4020	Literature Study
AE5050	Internship
AE5110	Thesis Aerodynamics & Wind Energy
AE5310	Thesis Control & Operations
AE5810	Thesis Space
AE5711	Thesis Aerospace Structures & Materials
AE5211	Thesis Flight Performance & Propulsion
AE5912	Thesis Wind Energy Rotor Design
AE4S01	Thermal rocket propulsion
AE4S01P	Exercise Thermal Rocket Propulsion
AE4S20	Satellite thermal control

Applied Sciences

English BSc courses available for exchange students				
Faculty of Applied Physics				
Course Code	Course Name	Cat.	EC	Period (O)
Applied Physics - B.Sc. & M.Sc. Courses for 3rd year B.Sc. Students (MSc courses in quarters)				
TN1651	Introduction to Biophysics	BSc	3	4
TN2304	Quantummechanics for the minor	BSc	4	2
TN2624	Statistical Physics for the minor	BSc	4	3
TN2612	Theory of Relativity	BSc	3	1
AP3261D	Mesoscopic Physics	MSc	6	1,2
AP3303	Applications of Quantum Mechanics	MSc	3	2
AP3311D	Neutrons, X-Rays and Positrons for Studying Microscopic Structures and Dynamics	MSc	6	3,4
AP3392	Geometrical Optics	MSc	6	4
AP3511D	Biophysics	MSc	6	1,2
AP3582	Medical Physics of Photon and Proton Therapy	MSc	6	3,4
CH3792	Introduction to Nuclear Science and Engineering	MSc	6	3
AP3991	Research Project	B&M	12-30	All
Minor Physics for Non-Physics Students				
TN2305	Quantum Mechanics for the minor	Minor	4	2
TN2625	Statistical Physics for the minor	Minor	4	3
TN2894	Introduction to Methods in Physics and Mathematics	Minor	4	1
TN2993	Experimental and Integrating Final Project	Minor	5	4
TN2612	Theory of Relativity	Minor	3	1
NB2011	Thermodynamics and Transport	Minor	3	2
TN1651	Introduction to Biophysics	Minor	3	4
Chemical Engineering - B.Sc. & M.Sc. Courses for 3rd year B.Sc. Students (period in quarters)				
CH3131	Applied Numerical Mathematics	MSc	6	1
CH3792	Introduction to Nuclear Science and Engineering	MSc	6	2
CH3562	Nanoparticle Technology	MSc	3	3
CH3141	Molecular Thermodynamics	MSc	6	1
CH3073	Separation Processes, Design and Operation	MSc	3	3
CH3632	Chemistry of Solar Cells	B&M	6	1
CH3043	Process Dynamics & Control	MSc	3	2
CH3861*	Hydro Carbon Processing*	MSc	3	3
CH3082**	Chemical Technology**	MSc	3	-
CH3782	Chemistry of the Nuclear Fuel Cycle	MSc	3	2
CH3771	Nuclear Chemistry	B&M	6	2
CH3622	Process Intensification	MSc	3	3,4
CH3982	Literature Study	B&M	3-6	all
CH3991all	Research Project	B&M	15-30	all
Life Science & Technology+				
LB2801	Bio-Based Materials in a Circular Economy	BSc	4	1
LB2951	Cell Signaling and Biophysics	BSc	8	LU
LB2961	Biocatalysis	BSc	5	1
LB2971	Inorganic Chemistry in Life	BSc	5	LU
LB2941	Quantitative Imaging in Life Sciences	BSc	5	LU
LB2981	Literature, Research and Validation+*	BSc	3	1,2
Nanobiology (Propaedeutic)++				
NB1022	Genetics (EMC)	Bsc(10)	4	1,2
NB1012	Biomolecular Dynamics (EMC)	Bsc(10)	3	4
NB1016	Molecular Biology (EMC)	Bsc(10)	3	5
NB1072	Physical Biology of the Cell part 1 (EMC)	Bsc(5)	3	7,8
NB1132	Biophysics	Bsc(5)	3	6
NB1140	Physics 1a	Bsc(5)	4	3,4
NB1143	Physics1b	Bsc(5)	3	5
NB1102	Chemistry-1(EMC)	Bsc(5)	3	2
NB1110	Chemistry-2(EMC)	Bsc(5)	3	3
WI1415NB	Analysis-1	Bsc(5)	5	1,2
WI1423NB	Analysis-2	Bsc(5)	5	3,4
WI1416NB	Analysis-3	Bsc(5)	3	7,8

Applied Sciences

Course Code	Course Name	Cat.	EC	Period (O)
WI1142NB	Linear Algebra	Bsc(5)	3	7,8

Nanobiology (Head phase, 2nd year)++				
NB2071	Physical Biology of the Cell part 2	Bsc(5)	3	1
NB2031	Evolutionary and Developmental Biology(EMC)	Bsc(5)	6	3,4
NB2111	Evolution	Bsc(5)	3	6
NB2041	Optics and Microscopy	Bsc(10)	3	6
NB2141	Physics 2	Bsc(5)	3	1,2
NB2061	Differential equations	Bsc(5)	3	1,2
NB2171	Statistics	Bsc(5)	3	5
NB2121	Image analysis(EMC)	Bsc(5)	3	8
NB2181	Computational Science	Bsc(5)	3	5,6,8
NB2161	Bioinformatics	Bsc(5)	4,5	7,8

Minor Communication Design for Innovation (CDI)				
SL4072TU	Sociology and psychology of collaboration and social networks	BSc	6	1
SL4092TU	C-Lab part 1: analysis	BSc	6	1
SL4081TU	Conversation strategies (masterclass)	BSc	1	1
SL4131TU	Visual Thinking (masterclass)	BSc	1	1
SL4181TU	Innovation through teamwork (masterclass)	BSc	1	1
SL4062TU-16	Communication, Marketing & Innovation	BSc	4	2
SL4152TU-16	C-Lab part 2: synthesis	BSC	9	2
SL4161TU	Intercultural communication	BSC	1	2
SL4171TU	Science journalism & Social Media	BSC	1	2

REMARKS

- * Hydro carbon processing is only given in odd years
- ** Chemical Technology is only given in even years
- + For Life Science & Technology, some courses are given at Leiden University. These course names have been marked with (LU).
- ++ For Nanobiology, some courses are given at Erasmus MC (Rotterdam). These have been marked with (EMC).
- ++ For Nanobiology, all courses have a max. amount of exchange students, indicated with x at BSc(x).
- +* Course LB2981 is part of the minor Advanced LST, just like the other courses in this section.
This course can only be followed when the full minor is chosen

Due to issues concerning scheduling and availability, we cannot offer our exchange students a free choice of subjects. Within the study exchange program, the Faculty of Architecture and the Built Environment allows Master level students to make their choice from its Master 1 programs. Bachelor level students have a choice from our English taught Bachelor minor programs and are not admitted to the Master 1 programs. Below you will find the list of course packages we offer. Since we cannot guarantee enrolment in your first choice, it is obligatory to mention a second choice and a third choice on the application form. In case you apply for two semesters you only have to mention the three choices for the first semester. You can enrol yourself for the second semester in November 2018; any choices for the second semester will not be taken into account. Please note that it is still possible that there might occur some minor changes in the offered course packages. In May the courses for the preceding Academic Year will be published on our website again. **Once you have sent us the application form it is not allowed to switch programmes.**

Exchange students to the Faculty of Architecture and the Built Environment can only take courses at the **Faculty of Architecture and the Built Environment**. Exchange students from other faculties cannot obtain credits at the Faculty of Architecture and the Built Environment.

English taught Bachelor minors for exchange students				
Faculty Architecture & Built Environment				
Course Code	Course Name	Cat.	EC	Period (Q)
Minor Archineering (autumn)				
BK7460-13	Archineering 1	Minor	15	1
BK7461	Archineering 2	Minor	15	2

Minor Neighbourhood of the Future - Green Blue Cities (autumn)				
BK7210	Urban Analysis and Design	Minor	3	1
BK7250	Sustainable Urbanism	Minor	3	2
BK7252	Transformation Strategies for Deprived Districts	Minor	3	1
BK7263	Future Proof Urban Project	Minor	9	2
BK7264	Future Proof Spatial Transformation Strategy	Minor	9	1
BK7265	Urban Design Evaluation	Minor	3	2

Minor House of the Future (autumn)				
BK7800	Project House of the Future (Design)	Minor	15	1-2
BK7810	Analysis and Model Study (Design Analysis)	Minor	7,5	1-2
BK7820	Imaging and Communication (Form Study)	Minor	7,5	1-2

Minor Retail Design (autumn) (selection procedure)				
BK7060	Retail Design: Design Project	Minor	15	1-2
BK7061	Retail Design: Lecture Series	Minor	5	1-2
BK7062	Retail Design: Toolkit	Minor	5	1-2
BK7063	Retail Design: Workshop	Minor	5	1-2

(for this minor there is a selection procedure, please send your portfolio and motivation to L.M.M.deWit@tudelft.nl)

Minor Heritage and Design (autumn)				
BK7550	Landscape and Transition	Minor	5	2
BK7551	History of Architecture, City and Landscape	Minor	5	1
BK7552	Heritage: Theory and Practice	Minor	5	2
BK7553	Architecture and Re-use	Minor	5	2
BK7554	History of Art	Minor	5	1
BK7555	City and Transformation	Minor	5	1

Minor Cities, Migration & Social Inequality (Autumn)				
NEW	Minor Cities, Migration & Social Inequality	Minor	15	1
Minor Landscape Architecture: Under the sky (Autumn)				
NEW	Minor Landscape Architecture: Under the sky	Minor	15	1
Minor Architectural presentations: Visions reviewed (Autumn)				

Course Code	Course Name	Cat.	EC	Period (Q)
NEW	Minor Architectural presentations: Visions reviewed	Minor	15	2
Minor Spatial Computing in Architectural Design (Autumn)				
NEW	Minor Spatial Computing in Architectural Design	Minor	15	2

Master Architecture specialiaztions
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Architecture and Dwelling (autumn and spring)				
AR 1A060	Delft Lectures on Architectural Design	MSc	3	1,3
AR 1A065	Delft Lectures on Architectural History	MSc	3	2,4
AR 1A075	Delft seminars on Building Technology	MSc	6	1-2,3-4
AR 1AD030	Seminar Architectural Studies	MSc	3	1,3
AR 1AD040	Seminar Architectural Reflections	MSc	3	1,3
AR 1AD011	Dwelling Design Studio: Architecture & Dwelling 'The Netherlands	MSc	12	1-2,3-4
AR1AD0122	Dwelling Design Studio: 'Global Housing'	MSc	12	3-4

Architectural Engineering (autumn and spring)				
AR 1A060	Delft Lectures on Architectural Design	MSc	3	1,3
AR 1A065	Delft Lectures on Architectural History	MSc	3	2,4
AR 1A075	Delft seminars on Building Technology	MSc	6	1-2,3-4
AR1AE010	EXTREME Architecture	MSc	12	1-2,3-4
AR1AE020	Extreme Seminar	MSc	6	1-2,3-4

Architecture and Public Building (Autumn)				
AR 1A060	Delft Lectures on Architectural Design	MSc	3	1,3
AR 1A065	Delft Lectures on Architectural History	MSc	3	2,4
AR 1A075	Delft seminars on Building Technology	MSc	6	1-2,3-4
AR 1AP030	Seminar Architectural Studies	MSc	3	1
AR 1AP040	Seminar Architectural Reflections	MSc	3	1
AR 1AP011	Public Building Design Studio: Architecture & Public Building	MSc	12	1-2

Complex Projects (autumn and spring)				
AR 1A060	Delft Lectures on Architectural Design	MSc	3	1,3
AR 1A065	Delft Lectures on Architectural History	MSc	3	2,4
AR 1A075	Delft seminars on Building Technology	MSc	6	1-2,3-4
AR 1CP010	Complex Projects Design Studio	MSc	12	1-2,3-4
AR 1CP040	Anatomy of a Landmark Seminar	MSc	6	1-2,3-4

Methods and Analysis (autumn)				
AR 1A060	Delft Lectures on Architectural Design	MSc	3	1,3
AR 1A065	Delft Lectures on Architectural History	MSc	3	2,4
AR 1A075	Delft seminars on Building Technology	MSc	6	1-2,3-4
AR 1MET010	Ways of Doing	MSc	12	1,2
AR 1MET030	Tools of Architecture	MSc	3	1
AR 1MET040	Roles of the Architect	MSc	3	1

Heritage & Architecture (autumn and spring)				
AR 1A060	Delft Lectures on Architectural Design	MSc	3	1,3
AR 1A065	Delft Lectures on Architectural History	MSc	3	2,4
AR 1A075	Delft seminars on Building Technology	MSc	6	1-2,3-4
AR 1AR010	Heritage and Architecture: Methodologies of Architectural Re-use	MSc	3	1,3
AR 1AR011	Heritage and Architecture Design Studio: Architectonic Design	MSc	12	1-2,3-4
AR 1AR080	Heritage and Architecture: Technology of Conservation	MSc	3	1,3

Interiors Buildings Cities (autumn and spring)				
AR 1A060	Delft Lectures on Architectural Design	MSc	3	1,3
AR 1A065	Delft Lectures on Architectural History	MSc	3	2,4

AR 1A075	Delft seminars on Building Technology	MSc	6	1-2,3-4
AR 1AI010	Interiors Buildings Cities MSc 1 Design Project	MSc	12	1-2,3-4
AR 1AL040	Interiors Buildings Cities Fundamentals	MSc	6	1-2,3-4

The Why Factor (Autumn)				
AR 1A060	Delft Lectures on Architectural Design	MSc	3	1,3
AR 1A065	Delft Lectures on Architectural History	MSc	3	2,4
AR 1A075	Delft seminars on Building Technology	MSc	6	1-2,3-4
AR 1TWF010	The Why Factory Design Studio: Design lab I	MSc	12	1-2
AR 1TWF020	The Why Factory: Actualities Workshop	MSc	3	1-2
AR 1TWF030	The Why Factory: Future Models I	MSc	3	1-2

Master Building Technology (autumn and spring)				
AR0531	Innovation and Sustainability	MSc	6	1-2
AR1B015-D1	Bucky Lab Design - Design	MSc	7	1-2
AR1B015-D2	Bucky Lab Design - CAD	MSc	3	1-2
AR1B015-D3	Bucky Lab Design - Production Technique	MSc	2	1-2
AR1B025-D1	Bucky Lab Seminars - Structural Mechanics	MSc	3	1-2
AR1B025-D2	Bucky Lab Seminars - Material Science	MSc	3	1-2
AR1B025-D3	Bucky Lab Seminars+ - BT Research Methodology	MSc	3	1
AR1B025-D4	Bucky Lab Seminars+ - Building Physics	MSc	3	2

Master Landscape Architecture (Autumn)				
AR1LA010	Villa Urbana: Design of an Experimental Ensemble	MSc	6	1
AR1LA020	Landscape as Object of Architecture	MSc	3	1
AR1LA031	TOPOS	MSc	3	1
AR1LA040	Green Architecture: Designing with Plants	MSc	3	1
AR1LA050	Dutch Waterscapes: Design of a Leisure Landscape	MSc	6	2
AR1LA060	The Fine Dutch Tradition	MSc	3	2
AR1LA070	Reflecting Ideas on Landscape: Paradigms and Positions	MSc	3	2
AR1LA080	Landscape Components: Green and Blue	MSc	3	2

Master Management in the Built Environment (Autumn)				
AR 1R016	Design and Construction Management	MSc	7	1
AR 1R025	Real Estate Management	MSc	7	2
AR 1R035	Housing Policy, Management and Sustainability	MSc	7	2
AR 1R046	Management and Finance 1	MSc	6	1
AR 1R055	Qualitative Research Methods in Design and Engineering	MSc	3	1

Master Urbanism (Autumn)				
AR1U090	R&D Studio: Analysis and Design of Urban Form	MSc	10	1
AR1U100	R&D Studio: Socio-Spatial Processes in the City	MSc	10	2
AR1U121	History and Theory of Urbanism	MSc	5	1
AR1U131	Sustainable Urban Engineering of Territory	MSc	5	2

Master Geomatics (Autumn)+				
GEO1000	Python Programming for Geomatics	MSc	5	1
GEO1001	Sensing Technologies for the Built Environment	MSc	5	1
GEO1002	Geographical Information Systems (GIS) and Cartography	MSc	5	1
GEO1003	Positioning and Location Awareness	MSc	5	2
GEO1005	Spatial Decision Support for Planning and Crisis Management	MSc	5	2
GEO1006	Geo Database Management Systems	MSc	5	2

Master Geomatics (Spring)+				
GEO1004	3D-modelling of the Built Environment	MSc	5	3

Architecture and the Built Environment

GEO1008	Geo Datasets and Quality	MSc	5	3
GEO1009	Geo-information Organisation and Legislation	MSc	5	3
GEO1007	Geoweb technology	MSc	5	4
GEO1101	Geomatics Synthesis Project (GSP)	MSc	10	4

REMARKS:

(Spring/autumn)

Only available in that semester

+

The FALL semester is accessible for students studying in the field of Geomatics Engineering & Surveying. The SPRING semester requires the courses of the FALL semester or equal knowledge & skills based on a students own educational programme: Python Programmin, Sensing Technologies GIS&Cartography, Location Awareness & Positioning Technologies, Spatial Decision Support Systems & Disaster Management, Geo-DataBase Management Systems. The SYNTHESIS project is only accessible for students who followed all core courses of Q1-Q3 or based on proof that they have equal knowledge & skills based on their own Geomatics Programme.

In the course catalogue (www.studyguide.tudelft.nl) you will find more detailed information on the courses above.

English courses available for exchange students				
Faculty of Civil Engineering & Geosciences				
Course Code	Course Name	Cat.	EC	Period (Q)
Head Phase (2nd Year), Specialization Geosciences				
CTB2310	Soil Mechanics	BSc	5	3
Head Phase (3rd Year), All specializations				
CTB3310	Surveying & Mapping	BSc	4	3
Head Phase (3rd Year), Specialization Structural Mechanics				
CTB3330	Structural Mechanics 4	BSc	4	3
CTB3335	Concrete Structures 2	BSc	4	3
CTB3420	Integral Design of Infrastructure	BSc	4	4
Head Phase (3rd Year), Specialization Hydraulic Engineering				
CTB3350	Open Channel Flow	BSc	4	3
CTB3355	Hydraulic Structures 1	BSc	4	3
Head Phase (3rd Year), Specialization Water Management				
CTB3360	Water Control	BSc	4	1,3
CTB3365-16	Introduction to Water Treatment	BSc	4	1,3
CTB3415	Water Management Research	BSc	4	4
Head Phase (3rd Year), Specialization Geosciences				
CTB3385	Use of Underground Space	BSc	4	3
CTB3390	Mechanics and Flow in Pore Media	BSc	4	3
CTB3425-17	Monitoring and Stability of Dikes and Embankments	BSc	4	4
Head Phase (3rd Year), Specialization Transport & Planning				
CTB3370	Geometrical Design of Roads and Railways	BSc	4	3
Minor Courses				
CT3101	Project Management Basics	Minor	5	1
CT3102-15	Introduction to project finance & legal aspects of projects	Minor	5	1
CT3103	Integration: technical project	Minor	10	1,2
CT3201	Interdisciplinary & Collaborative Design Project	Minor	9	2
CT3361	Urban Planning and Transport Networks	Minor	4	2
CT3366	Economie van Transport en Externe Effecten	Minor	4	1

Students need to meet the prerequisites of the course as described in the TU Delft study guide.

English courses available for exchange students				
Faculty of Electrical Engineering, Mathematics and Computer Science				
Course Code	Course Name	Cat.	EC	Period (Q)
Minor Autonomous Exploration Robots (Electrical Engineering)				
Regular Minor Programme				
EE3310TU	Telecommunications Techniques	Minor	3	1
ET3033TU	Circuit Analysis	Minor	3	1
ET3604LR	Electronic Circuits	Minor	3	1
ET3604LRP	Electronic Circuits (part of ET3604LR)	Minor	0	1
TI2726-A	Signal Processing	Minor	5	1
EE3330TU	Guiding & Radiating	Minor	4	2
EE3331TU	Structured Electronic Design - Basics	Minor	4	2
ET3051TU	Electronic Power Conversion	Minor	4	2
EE3039TU	Marsrover project	Minor	4	2
Minor Programme Autonomous Exploration Robots for Students Computer Science				
EE3310TU	Telecommunications Techniques	Minor	3	1
ET3033TU	Circuit Analysis	Minor	3	1
ET3604LR	Electronic Circuits	Minor	3	1
ET3604LRP	Electronic Circuits (part of ET3604LR)	Minor	0	1
TI2716-A	Signal Processing	Minor	5	1
EE3330TU	Guiding & Radiating	Minor	4	2
EE3331TU	Structured Electronic Design - Basics	Minor	4	2
ET3051TU	Electronic Power Conversion	Minor	4	2
EE3039TU	Marsrover project	Minor	4	2

Minor Electrical Sustainable Energy Systems				
Minor Programme for Electrical Engineering Students				
EE3065TU	Reliability of Sustainable Power Systems	Minor	3	1
EE3105TU	Sustainable Energy Technologies	Minor	3	1
EE3110TU	Energy Efficiency	Minor	3	1
ET3037TU	Project Integrating Renewable Energy	Minor	6	1
EE3060TU	Agent-based Energy Markets	Minor	3	2
ET3034TU	Solar Energy	Minor	3	2
ET3036TU	Project Design of Sustainable Energy Supply	Minor	6	2
Minor Programme for Non-Electrical Engineering Students				
Compulsory Courses				
ET3365TU D1	Introduction to Electrical Power Engineering part 1	Minor	3	1
EE3105TU	Sustainable Energy Technologies	Minor	3	1
ET3037TU	Project Integrating Renewable Energy	Minor	6	1
ET3365TU D2	Introduction to Electrical Power Engineering part 2	Minor	3	2
ET3034TU	Solar Energy	Minor	3	2
ET3036TU	Project Design of sustainable energy supply	Minor	6	2
Electives (6EC)				
EE3060TU	Agent-based Energy Markets	Minor	3	2
EE3065TU	Reliability of Sustainable Power Systems	Minor	3	1
EE3110TU	Energy Efficiency	Minor	3	1

Course Code	Course Name	Cat.	EC	Period (Q)
or Elective Courses Software Engineering				
TI1506	Web & Databases	Minor	5	2
EWI3620TU	Project Software Engineering	Minor	10	2
Or Elective Courses Gaming Development				
EWI3610TU	Computer graphics	Minor	5	1
EWI3620TU	Project Games development	Minor	10	2

Minor Finance (Applied Mathematics)				
WI3411TU	Time series	Minor	4	1
WI3405TU	Option Valuation Methods	Minor	6	1,2
WI3425TU	Monte Carlo methods	Minor	6	1,2

WI3417TU	Introduction to Mathematical Finance	Minor	6	1,2
WI3418TU	Principles of Asset Trading	Minor	0	1,2
WI3421TU	Risk management	Minor	2	1,2
WI3430TU	Current Issues in Finance	Minor	3	2
WI3420TU	Clinic	Minor	3	2

Minor Computational Science and Engineering (Applied Mathematics)				
TW3710TU	Scientific Programming	Minor	3	1
TW3715TU	Final Minor Project-part A	Minor	2	1
TW3730TU	Numerical Methods for Differential Equations	Minor	6	1
TW3740TU	Parallel Computing	Minor	4	1
TW3720TU	Object Oriented Scientific Programming C++	Minor	3	2
TW3725TU	Final Minor Project-part B	Minor	6	2
TW3750TU	Numerical methods for Stochastic Differential Equations	Minor	6	2

Individual BSc Courses available for exchange students

Electrical Engineering				
Electrical Engineering: First Year				
Course Code	Course Name	Cat.	EC	Period (Q)
EE1P11	Classical and Quantum Physics	BSc	5	1
EE1C11	Linear Circuits A	BSc	5	1
EE1C21	Linear Circuits B	BSc	5	2
EE1D11	Digital Systems A	BSc	5	3
EE1C31	Amplifiers and instrumentation	BSc	5	3
EE1D21	Digital Systems B	BSc	5	3
EE1P21	Electricity and Magnetism	BSc	5	4
Electrical Engineering : Second Year				
EE2E11	Electrical Energy Conversion	BSc	5	1
EE2C11	Integrated Circuits	BSc	5	1
EE2T11	Telecommunications A	BSc	5	3
EE2E21	Sustainable Energy Supply	BSc	5	3
EE2S31	Signal Processing	BSc	5	4
EE2T21	Telecommunications B	BSc	5	4
Electrical Engineering: 3rd Year				
EE3P11	Electromagnetics	BSc	5	3
EE3D11	Computer Architecture and Organisation	BSc	5	3
On individual basis projects of 15 EC can sometimes be arranged.				

Applied Mathematics				
Applied Mathematics: 1st year				
Course Code	Course Name	Cat.	EC	Period (Q)
TW1030	Linear Algebra 1	BSc	5	1
TW1010	Mathematical Structures	BSc	6	1,2
TW1040	Analysis 1	BSc	5	2
TW1090	Introduction to Programming	BSc	5	2
TN1531TW	Mechanics and Theory of Relativity	BSc	5	3
TW1050-A	Modelling-A	BSc	5	3
TW1070	Analysis 2	BSc	6	3,4
TW1050-B	Modelling-B	BSc	5	4
TW1080	Introduction to Probability	BSc	5	4
Applied Mathematics: 2nd year				
TW2550	Advanced Statistics	BSc	5	3
TW2510	Decision Theory	BSc	5	3
TW2060	Numerical Methods 1	BSc	6	3,4
Applied Mathematics: 3rd year				
TW3520	Logic	BSc	5	3
TW3530	Numerical Methods 2	BSc	5	3
TW3560	Advanced Probability	BSc	5	3
On individual basis projects of 15 EC can sometimes be arranged.				

REMARKS

*

All Courses ending with the same letter (A/B/C) are taught at the same time

BSc: All BSc students coming to EEMCS are strongly advised to choose a minor. Individual courses from a minor can not be followed separately, unless they

MSc: Almost all MSc courses are open to students who will follow an exchange period after completing their BSc or at least 6 semesters of studies in a

Faculty of Industrial Design Engineering

English courses available for exchange students				
Faculty of Industrial Design Engineering				
Course Code	Course Name	Cat.	EC	Period (Q)
Bsc Courses				
IO1016ZI	Design Drawing for Erasmus and Adaptation	BSc	3	2, 4
IO1040-17	Form and experience	BSc	7,5	2
IO1080-13	Research and design	BSc	7,5	4
IO2010-15	PO3, Design Driven Innovation	BSc	7,5	2
IO2031	Strategic Product Innovation	BSc	7,5	1
IO2060-15	Interaction and electronics	BSc	7,5	3
IO2081	Design for Sustainability	BSc	7,5	4
IO3010	Cross Media Interaction Design	BSc	7,5	3
IO3020	Design and Cultural Impact	BSc	7,5	3
IO3030	Design Visualisation	BSc	7,5	3
IO3040	Software	BSc	7,5	3
IO3045	Video for Designers	BSc	7,5	3
IO3050	Mechatronics	BSc	7,5	3
IO3060	Creating in Project Teams	BSc	7,5	3
IO3075	Towards Circular Product Design	BSc	7,5	3

Minor Automotive Design*				
IO3610	Automotive Introduction	Minor	1	1
IO3620	Automotive Styling	Minor	4	1
IO3630	Automotive Technology	Minor	7	1
IO3640-12	Automotive Context	Minor	9	2
IO3650	Automotive Skills	Minor	6	2
WB3190IO	Automotive Safety and Human Factors	Minor	3	2

Minor Interactive Environment*				
BK 7500	Design of Prototypes	Minor	7,5	1
BK 7511	Architectural prototypes	Minor	7,5	1
IO3850	Advanced prototyping for design	Minor	7,5	1
IO3851	Personal prototyping project	Minor	7,5	1

* Minors can only be taken as a whole, courses are not offered separately

English courses available for exchange students				
Faculty of Technology, Policy and Management				
Course Code	Course Name	Cat.	EC	Period (Q)
Bsc Courses				
SPM6110LR	Policy Analysis	BSc	6	2
SPM6210	Serious Games & Virtual Worlds Colloquia	BSc	4	1
WM0103TU	Teamwork	BSc	3	1,2,4
WM0161TU	Managing People	BSc	4	1
WM0201TU-Eng	Technical Writing	BSc	1	1,2,3,4
WM0203TU-Eng	Oral Presentation	BSc	1	1,2,3,4
WM0328IN	ICT-Society 4: Ethics and Law for Comput	BSc	4	3
WM0357TU	Value Sensitive Design: broadening the s	BSc	2	2
WM0365TU	Technology and the Future of Humanity	BSc	4	2
WM0902TU	Technology and Global Development	BSc	2	1
WM1110TU	English for Academic Purposes-2	BSc	3	1,3
WM1113TU	English for Academic Purpose-1	BSc	3	1,3
WM0820TU	Responsible Innovation. Introduction	BSc	5	1,2
WM0821TU	Responsible management of risk and safety	BSc	5	1,2
WM0369TU	Philosophy of the human being and technology	BSc	3	1,2
WM0628TU	Business Economics, choice of technique and innovation	BSc	5	1,2
SPM6401	Integrating course security systems analysis	BSc	5	1,2
WM0374TU	Project Research and Design	BSc	3	1,2
WM0565TU	Sustainable Entrepreneurship	BSc	3	1,2
WM0374TU	Project Research and Design	BSc	3	1,2
WM0565TU	Sustainable Entrepreneurship	BSc	3	1,2
WM0619TU	Business Marketing and Finance	BSc	3	1,2
WM0927TU	Intercultural Internship	BSc	15	1,2
WM0942TU	Development, Sustainability and Culture	BSc	6	1,2
WM4017TU	Case Study Sustainable Entrepreneurship	BSc	15	1,2
WM0628TU	Business economics, choice of technique and innovation	BSc	5	1,2
WM0821TU	Responsible management of risk and safety	BSc	5	1,2
SPM9448	Methods for Risk Analysis and Management	BSc	5	1,2
WM0713TU	Technology and Law	BSc	5	1,2
WM0827TU	Technology, Innovation and Ethics for companies	BSc	5	1,2
WM0837TU	Formal methods for strategic decision-making	BSc	2.5	1,2
WM0828TU	Minor Companies and Innovation Integration Course	BSc	5	1,2
TB221	Economics of Infrastructures	BSc	5	1
TB241TA	Logistics 2	BSc	5	1
TB242IA	Intelligent data analysis	BSc	5	2
TB142IA	Computer and information systems	BSc	5	4

Course Code	Course Name	Cat.	EC	Period (Q)
Minor Courses*				
WM0107TU-ENG	Conversation Skills	BSc/MSc	2	4

WM1137TU	Spoken English for Technologists-1	BSc/MSc	2	1,3
WM1136TU	Written English for Technologists 1	BSc/MSc	3	1,3
WM1102TU	Written English for Technologists 2	BSc/MSc	3	1,3
WM1101TU	English for Academic Purposes 3	BSc/MSc	3	1,3
WM1135TU	English for Academic Purposes 4	BSc/MSc	3	1,3
WM1112TU	Spoken English for Technologists 2	BSc/MSc	2	1,3

*) Courses which are part of a minor package may have limited access

At TPM, all Master courses are given in English.

BSc exchange students are allowed to choose Master courses, provided they meet the course prerequisites.