TU Delft English courses available to incoming BSc exchange students

Academic year **2020-2021**

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 you apply for an 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.

Less than 24 EC is not acceptable, even if allowed by your home university.
Further instructions on course selection are on our exchange webpage.

At TU Delft the academic year has been divided into four periods.
Periods 1 and 2 correspond to the fall semester, periods 3 and 4 correspond to the spring semester.
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 is half of a quarter.
It is highly recommended to choose amongst courses that evenly distribute the workload over one semester. The advisable study load is 12-15 EC per quarter.

We expect students to carefully prepare a study plan according to our guidelines and have it approved by the home institution as soon as possible to make sure the choices are available in the semester desired. The study plan is a crucial factor whether students will be accepted or not.

A few faculties offer fixed course packages and have course restrictions which students need to consider when selecting their courses. The restrictions are outlined on the requirement tab of the exchange webpage.

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.

Faculty of Aerospace Engineering

English BSc and MSc courses available for exchange students

Before the start of semester 2 2020-2021 an assessment will be done if and which first year BSc courses will be available

Bachelor 2nd year				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
AE2111-II*	Aerospace Design and Systems Engineering Elements	BSc	3	1
AE2130-I	Aerodynamics 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 Modelling	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

* Only open to AE exchange students

Bachelor 3rd year major				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
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

Minor Offshore Wind Energy Limited places available, please first contact exchange-ae@tudelft.nl				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
AE3514	Introduction to Wind Energy	Minor	3	1
AE3511*	Operations Maintenance	Minor	4	1,2
AE3512	Asset Management	Minor	4	2
AE3513	Integration Assignment	Minor	6	2
CT3101	Project Management Basics	Minor	5	1
AExxxx	Basics of Aeroacoustics for Wind Energy	Minor	3	2
TBMxxxx	Introduction to Energy systems	Minor	5	1,2

*very limited places, course cannot be taken individually

Minor Airport of the Future Limited places available, please first contact exchange-ae@tudelft.nl				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
AE3501-14	Air Transportation	Minor	3	1
AE3502-14	Airport Planning, Design and Operations	Minor	4	1
AE3503*	Strategic Planning for Airport Systems	Minor	6	2
TB241TA	Logistics 2	Minor	5	1
CT3080LR	Landside Accessibility of Airports	Minor	6	1
IO3818	Designing an Airport	Minor	6	2

*very limited places, course cannot be taken individually

MSc Aerospace Engineering Profile courses (all tracks) Courses from the MSc Spaceflight are only open to Exchange students from the faculty of Aerospace Engineering!				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
AE4115	Experimental Simulations	MSc	3	2
AE4120	Viscous Flows	MSc	3	2
AE4130	Aircraft Aerodynamics	MSc	3	1,2
AE4135	Rotor/wake Aerodynamics	MSc	4	3,4
AE4136	CFD 2: Discretization Techniques	MSc	2	2
AE4140	Gas Dynamics	MSc	3	1
AE4180	Flow Measurement Techniques	MSc	3	3,4
AE4202	CFD for Aerospace Engineers	MSc	3	1
AE4W02TU	Introduction to Wind Turbines: Physics and Technology	MSc	4	2
AE4W21-14	Wind Turbine Aeroelasticity	MSc	2	4
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
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
AE4261	Internal Flows	MSc	3	2
AE4262	Combustion for Propulsion and Power Technologies	MSc	4	3
AE4263	Modelling, Simulation and Applications of P&P Systems	MSc	5	3
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	2
AE4304	Stochastic Aerospace Systems	MSc	3	2
AE4304P	Stochastic Aerospace Systems Practical	MSc	1	3
AE4316	Aerospace Human-Machine Systems	MSc	4	2
AE4322	Piloted Flight Simulation	MSc	4	3

AE4422-19	Agent-based Modelling and Simulation in Air Transport	MSc	4	1
AE4423-19	Airline Planning and Operations	MSc	4	2
AE4426-19	Stochastic Processes and Simulations	MSc	4	2
AE4431	Aircraft Noise and Emissions	MSc	3	2
AE4441-16	Operations Optimisation	MSc	4	1
AE4462-17	Aircraft Emissions and Climate Effects	MSc	4	3
AE4463P	Advanced Aircraft Noise Modelling and Measurement	MSc	4	2
AE4465	Maintenance Modelling & Analysis	MSc	4	3
AE4866	Propagation and Optimization in Astrodynamics	MSc	4	3
AE4868	Numerical Astrodynamics	MSc	3	2
AE4870A	Rocket Motion	MSc	3	1
AE4870B	Re-Entry Systems	MSc	3	1
AE4872	Satellite Orbit Determination	MSc	6	1,2
AE4874-I	Fundamental of Astrodynamics	MSc	4	1
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
AE4S10	Microsat Engineering	MSc	4	3
AE4S12	Space Systems Engineering	MSc	3	1,2
AE4S15	Space Embedded Systems	MSc	3	3,4
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
AE4ASM103	Functional Coatings	MSc	3	2
AE4ASM104	Sensor Material	MSc	3	3
AE4ASM106	Stability & Analysis of Structures I	MSc	3	2
AE4ASM108	Experimental Techniques & NDT	MSc	3	2
AE4ASM109	Design & Analysis of Composite Structures I	MSc	5	3
AE4ASM110	Polymer Composite Manufacturing	MSc	3	2
A4ASM506	Fundamentals of Aeroelasticity	MSc	3	3
WM0324LR**	Ethics and Engineering for Aerospace Engineering**	MSc	3	2,3
WI2056LR	Systems Theory	MSc	4	1

MSc Electives from all tracks

Code	Course Name	Cat.	EC	Period
AE4117	Fluid-Structure Interaction	MSc	4	3
AE4139	CFD 3: Large Eddy Simulation	MSc	3	3
AE4138-18	CFD 4:Uncertainty Quantification			
AE4143	Hypersonic Aerodynamics	MSc	3	2,3
AE4260A	Fundamentals of Aeroacoustics	MSc	2	2
AE4260B	Experimental Applications of Aeroacoustics	MSc	2	2
AE4W30	Wind Resource and Wind Farm Yield	MSc	4	1,2
AE4245	Advanced Aircraft Design II	MSc	4	3
AE4270	Control and Operations Project (track 2 elective)	MSc	4	1
AE4311	Nonlinear and Adaptive Flight Control	MSc	4	4
AE4314	Helicopter Performance, Stability and Control	MSc	3	4

AE4314P	Helicopter Performance, Stability and Control Exercise	MSc	1	4
AE4315	Advanced Dynamics	MSc	3	4
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
AE4323	Real-time Distributed Flight and Space Simulation	MSc	3	4
AE4350	Bio-inspired Intelligence and learning for Aerospace Application	MSc	3	4
AE4446	Airport Operations	MSc	4	3
AE4889	Special Topics in Astrodynamics	MSc	2	3
AE4S04	Introduction to Thermal Rocket Propulsion	MSc	1	1
AE4S07	Micropropulsion	MSc	4	1,2,3,4
AE4S50	Concurrent Engineering Challenge	MSc	4	1,2
AE4ASM503	Sheet Metal Forming	MSc	3	3
AE4ASM504	Structural Integrity and Maintenance	MSc	3	3
AE4ASM508	Design of Self-healing materials	MSc	3	3
AE4ASM510	Design & Analysis of Composite Structures II	MSc	3	4
AE4ASM511	Stability & Analysis of Structures II	MSc	3	3
AE4ASM515	Materials Characterization	MSc	3	4
AE4ASM516	Material Selection for Mechanical Design	MSc	3	3
AE4ASM520	Industrial Composite Manufacturing	MSc	3	4
AE4ASM521	Additive Manufacturing	MSc	3	3
AE4ASM522	Applied Aircraft Aeroelasticity	MSc	3	4
AE4ASM523	Design of Spacecraft and Launcher Structures	MSc	3	3
AE4ASM514TU	Continuum Mechanics	MSc	4	3

MSc courses at another TU Delft faculty strongly related to Aerospace

Code	Course Name	Cat.	EC	Period
CIE4601	Physics of the Earth and Atmosphere	MSc	5	1
CS4240	Deep Learning	MSc	5	3
ET3604LR	Electronic Circuits	BSc	3	1
ET4117	Electrical Machines Drives	MSc	4	2
ME41025	Robotics Practical	MSc	3	4
ME45000	Advanced Heat Transfer	MSc	3	1
ME45025	Introduction to Multiphase Flow	MSc	5	3,4
ME45030	Turbulence	MSc	5	3,4
ME45100	Fuel Cell Systems	MSc	3	4
ME46060	Engineering Optimization 1: Concept and Application	MSc	3	4
MS43310	Materials at High Temperature	MSc	4	4
OE44120	Offshore Windfarm Design	MSc	4	3
WI4007TU	Fourier and Laplace Transform	MSc	4	3
WI4014TU	Numerical Analysis	MSc	6	1,2
WI4019	Non-linear Differential Equations	MSc	6	3,4
WI4210	Scientific Computing	MSc	6	1,2
WI4525TU	Monte Carlo Simulation of Stochastic Processes	MSc	5	1,2
WI3150TU	Partial Differential Equations A	MSc	3	1
WI4210	Partial Differential Equations and Functional Analysis	MSc	6	3,4

REMARKS:

* 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.

*** MSc Aerospace Engineering Exchange students only

Important:
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:

Course Code	Course Name
AE1111-I	Exploring Aerospace Engineering
AE1111-II	Engineering Drawing
AE1222-I	Design and Construction
AE2111-I	Systems Design
AE2130-II	Low-Speed Wind tunnel Test
AE2223-I	Test, Analysis & Simulation
AE3212-II	Simulation, Verification & Validation
AE3200	Design Synthesis
AE4ASM003	Linear Modelling incl. (F.E.M)
AE4ASM105	Trinity Exercise
AE4ASM505	Non-Linear Modelling (using F.E.M.)
AE4ASM512	Aerospace Structures and Materials Industry Best Practice
AE4ASM513	Forensic Engineering
AE4ASM517	Aircraft Manufacturing Laboratory
AE4ASM524	Advanced Design, Development and Verification of Spacecraft and Launcher structures
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

Faculty of Applied Sciences

English courses offered for BSc and MSc exchange students are available at the following webpage:

https://www.tudelft.nl/tnw/studeren/uitwisselingsstudenten/course-information/

Master's courses are open to Master's students and to Bachelor's students who have completed or almost completed 3 years of study at the moment of application. This figure can be 2 years for Bachelor's students, depending on their academic background.

FACULTY OF ARCHITECTURE AND THE BUILT ENVIRONMENT

Course packages 2020-2021 for EXCHANGE STUDENTS

Due to issues concerning scheduling and availability, we cannot offer our students a free choice of subjects. Within the study exchange program, our faculty allows during the first semester (autumn):

- **Master** level students to make a choice from our Master 1 programs.
- **Bachelor** level students to make a choice from our English taught Bachelor minor programs .

During the second semester (spring) we will offer:

- A **Master** level course package of 3 elective courses and a MSc2 design course (the list in this document is still provisional).

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 in the application system and/or in your motivation letter.

In case you apply for two semesters you only have to mention the three choices for the first semester. Choices for the second semester will not be taken into account.

Please note that it is still possible that some minor changes might occur in the offered course packages. In May the courses for the preceding Academic Year will be published in our online course catalogue in which practical information can be found.

Once you have submitted your application it is not allowed to switch programmes.

Autumn semester **(For spring semester, scroll to end of document!)**

English taught Bachelor minors (autumn only)

NEW: Bachelor students can choose one 15 ECTS course offered in Q1 and one that is offered in Q2.
*These courses can only be followed in combination with matching Q1 course.

Minor: Code and name	Autumn - Q1	Autumn - Q2
BK-Mi-123-20 House of the future (only offered as 30 ECTS programme)	x	x
BK-MI-193-20 Cities Migration and Socio-Spatial Inequality (CMSI)	x	
BK-MI-197-20 Spatial Computing in Architectural Design		x
BK-MI-198-20 Architecture Presentation: Visions Reviewed		x
BK-MI-203-20 Archineering Q1	x	
BK-MI-204-20 Archineering Q2*		x
BK-MI-216-20 Minor Sustainable Urbanism: The Green-Blue City		x
BK-MI-209-20 Spaces of Display Q1	x	
BK-MI-210-20 Spaces of Display Q2*		x
BK-MI-211-20 Heritage and Design Q1	x	
BK-MI-212-20 Heritage and Design Q2*		x

Course code	Course name	Credits	Start education	Education period
BK-Mi-123-20 House of the future (limited spots available for this Minor)				
BK7800	Project House of the Future (Design)	15.0	1	1, 2
BK7810	Analysis and Model Study (Design Analysis)	7.5	1	1, 2
BK7820	Imaging and Communication (Form Study)	7.5	1	1, 2

BK-MI-193-20 Cities Migration and Socio-Spatial Inequality (CMSI)				
BK7470	CMSI Lecture Series & Review Paper	6.0	1	1
BK7471	CMSI Collaborative Project: Tackling Spatial Inequality	6.0	1	1
BK7472	CMSI Engaging with Practice of Spatial Inequality	3.0	1	1

BK-MI-197-20 Spatial Computing in Architectural Design				
BK7083	Computational Design Studio	9.0	2	2
BK7084	Computational Simulations	6.0	2	2

BK-MI-198-20 Architecture Presentation: Visions Reviewed				
BK7140	Presenting Project Facts	3.0	2	2
BK7141	Presenting Project Visions	3.0	2	2
BK7142	Presenting Project Prospects	9.0	2	2

BK-MI-203-20 Archineering Q1				
BK7460-13	Archineering 1	15.0	1	1

BK-MI-204-20 Archineering Q2				
BK7461	Archineering 2	15.0	2	2

BK-MI-216-20 Minor Sustainable Urbanism: The Green-Blue City				
BK7215	Basic techniques for sustainable urban design	5.0	2	2
BK7225	City and Public Space: Sustainable Urban Design	10.0	2	2

BK-MI-209-20 Spaces of Display Q1 (for this minor is a selection procedure, please send your portfolio and motivation to L.M.M.deWit@tudelft.nl)				
BK7064	Spaces of Display 1; retail and exhibition design	10.0	1	1
BK7066	Tools for Spaces of Display 1	5.0	1	1

BK-MI-210-20 Spaces of Display Q2				
BK7065	Spaces of Display 2; retail and exhibition design	10.0	2	2
BK7067	Tools for Spaces of Display 2	5.0	2	2

BK-MI-211-20 Heritage and Design Q1				
BK7550	Landscape and Transition	5.0	1	1
BK7551	History of Dutch Cities and Landscapes	5.0	1	1
BK7555	City and Transformation	5.0	1	1

BK-MI-212-20 Heritage and Design Q2				
BK7552	Heritage: Theory and Practice	5.0	2	2
BK7553	Architecture and Re-use	5.0	2	2
BK7554	History of Dutch architecture and art	5.0	2	2

Master Architecture specializations (autumn only) More detailed information can be found here.

Course code	Course name	Credits	Start education	Education period
Architecture and Dwelling				
Master 1				
AR1A061	Delft Lectures on Architectural Design and Research Methods	5.0	1	1
AR1A066	Delft Lectures on Architectural History and Theory	5.0	2	2
AR1A080	Building Engineering Studios	10.0	1	1, 2
AR1AD014	Fundamentals of Housing Design Studio	10.0	1	1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment	1.0	1	1

Form Studies				
Master 1				
AR1A061	Delft Lectures on Architectural Design and Research Methods	5.0	1	1
AR1A066	Delft Lectures on Architectural History and Theory	5.0	2	2
AR1A080	Building Engineering Studios	10.0	1	1, 2
AR1FO010	Form, Structure and Aesthetics Studio	10.0	1	1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Architectural Design Crossovers				
Master 1				
AR1A061	Delft Lectures on Architectural Design and Research Methods	5.0	1	1
AR1A066	Delft Lectures on Architectural History and Theory	5.0	2	2
AR1A080	Building Engineering Studios	10.0	1	1, 2
AR1DC010	Architectural Design Crossovers Studio	10.0	1	1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Architectural Engineering				
Master 1				
AR1A061	Delft Lectures on Architectural Design and Research Methods	5.0	1	1
AR1A066	Delft Lectures on Architectural History and Theory	5.0	2	2
AR1A080	Building Engineering Studios	10.0	1	1, 2
AR1AE011	EXTREME architecture	10.0	1	1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Architecture and Public Building				
Master 1				
AR1A061	Delft Lectures on Architectural Design and Research Methods	5.0	1	1
AR1A066	Delft Lectures on Architectural History and Theory	5.0	2	2
AR1A080	Building Engineering Studios	10.0	1	1, 2
AR1AP012	Public Buildings Design Studio	10.0	1	1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Complex projects				
Master 1				
AR1A061	Delft Lectures on Architectural Design and Research Methods	5.0	1	1
AR1A066	Delft Lectures on Architectural History and Theory	5.0	2	2
AR1A080	Building Engineering Studios	10.0	1	1, 2
AR1CP011	Complex Projects Design Studio	10.0	1	1
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Methods and Analysis				
Master 1				
AR1A061	Delft Lectures on Architectural Design and Research Methods	5.0	1	1
AR1A066	Delft Lectures on Architectural History and Theory	5.0	2	2
AR1A080	Building Engineering Studios	10.0	1	1, 2
AR1MET011	Ways of Doing	10.0	1	1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Heritage and Architecture				
Master 1				
AR1A061	Delft Lectures on Architectural Design and Research Methods	5.0	1	1
AR1A066	Delft Lectures on Architectural History and Theory	5.0	2	2
AR1A080	Building Engineering Studios	10.0	1	1, 2
AR1AH010	Heritage and Architecture Design Studio: Architectonic Design	10.0	1	1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Interiors Buildings Cities				
Master 1				
AR1A061	Delft Lectures on Architectural Design and Research Methods	5.0	1	1
AR1A066	Delft Lectures on Architectural History and Theory	5.0	2	2
AR1A080	Building Engineering Studios	10.0	1	1, 2
AR1AI013	Interiors Buildings Cities MSc1 Design Project	10.0	1	1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

The Why Factory				
Master 1				
AR1A061	Delft Lectures on Architectural Design and Research Methods	5.0	1	1
AR1A066	Delft Lectures on Architectural History and Theory	5.0	2	2
AR1A080	Building Engineering Studios	10.0	1	1, 2
AR1TWF011	The Why Factory MSc1 Design Studio	10.0	1	1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Borders and Territories				
Master 1				
AR1A061	Delft Lectures on Architectural Design and Research Methods	5.0	1	1
AR1A066	Delft Lectures on Architectural History and Theory	5.0	2	2
AR1A080	Building Engineering Studios	10.0	1	1, 2
AR1BO010	Borders & Territories Design Studio	10.0	1	1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Urban Architecture				
Master 1				
AR1A061	Delft Lectures on Architectural Design and Research Methods	5.0	1	1
AR1A066	Delft Lectures on Architectural History and Theory	5.0	2	2
AR1A080	Building Engineering Studios	10.0	1	1, 2
AR1UAxxx	Urban Architecture MSc 1 Design studio	10.0	1	1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Master Building Technology (autumn only)

Course code	Course name	Credits	Start education	Education period
Master 1				
AR1B011	Bucky Lab Design - Design	10.0	1	1, 2
AR1B021	Bucky Lab Engineering	10.0	1	1, 2
AR1B031	Research & Innovations	10.0	1	1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Master Management in the Built Environment (autumn only)

Course code	Course name	Credits	Start education	Education period
Master 1				
AR1MBE010	Management and Finance	6.0	1	1
AR1R016	Design and Construction Management	7.0	1	1
AR1R025	Real Estate Management	7.0	2	2
AR1R035	Housing Policy, Management and Sustainability	7.0	2	2
AR1R055	Research Methods Introduction	3.0		1, 2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Master Landscape Architecture (autumn only)

Course code	Course name	Credits	Start education	Education period
Master 1				
AR1LA011	Architecture and Landscape: Design Studio	10.0	1	1
AR1LA021	Architecture and Landscape: Theory, Method and Critical Thinking	5.0	1	1
AR1LA051	Dutch Landscape: Design Studio	10.0	2	2
AR1LA061	Dutch Landscape: Theory, Method and Critical Thinking	5.0	2	2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Master Urbanism (autumn only)

Course code	Course name	Credits	Start education	Education period
Master 1				
AR1U090	R&D Studio: Analysis and Design of Urban Form	10.0	1	1
AR1U100	R&D Studio: Designing Urban Environments	10.0	2	2
AR1U121	History and Theory of Urbanism	5.0	1	1
AR1U131	Sustainable Urban Engineering of Territory	5.0	2	2
Starting Course MSc1 (highly recommended, see course description)				
ARX071	Workshops Faculty of Architecture and the Built Environment		1	1

Spring semester (provisional list!)

Master Architecture specializations (spring only)

Course code	Course name	Credits	Education period	Start education
Architecture 1				
Master 2				
	Choice MSc2 Design studio*	15.0	3,4	2
AR0116	Thinking through making	5.0	3	2
AR2HA011	Building Green	5.0	3	2
AR0215	Form & Presentations	5.0	3	2

Architecture 2				
Master 2				
	Choice MSc2 Design studio*	15.0	3,4	2
AR0109	City of Innovations	5.0	3	2
AR2AP031	Aesthetics of Sustainable Architecture	5.0	3	2
AR0136	Making	5.0	3	2

Architecture 3				
Master 2				
	Choice MSc2 Design studio*	15.0	3,4	2
AR0108	Heritage	5.0	3	2
AR0113	Methods of Architecture	5.0	3	2
AR0141	CSI-Heritage	5.0	3	2

Architecture 4				
Master 2				
	Choice MSc2 Design studio*	15.0	3,4	2
AR0796	Ornamatics	5.0	3	2
AR2UA010	Urban Architecture	5.0	3	2
AR0106	Architectural Etnography	5.0	3	2

* Choice MSc2 Design studio: please choose 3 Design studios from the list below in order of preference and mention these in your motivation letter. By selecting the course code in the course catalogue you can find more detailed information about the content of the courses. The 15 ECTS studios are offered by the Architecture track.

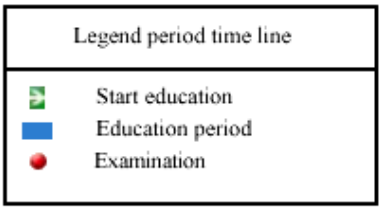
Program PDF download show

Program

Code MSc 2 Design Projects

Courses

Course code	Course Title	Ects points	p1 | p2 | p3 | p4 | p5
AR0086	Infrastructure and Environment Design	12	
AR0103	Design for a resilient Rotterdam	15	
~~AR0124~~	Solar Decathlon Design	15	
AR0139	MEGA	15	
AR0142	EXTREME technology	15	
~~AR0143~~	Sustainability project - design and elaboration	15	
AR0149	ON SITE, Landscape architectonic explorations	15	
AR0152	Design Studio: Architecture and Urbanism Beyond Oil	15	
AR0167	Architecture & Urban Design	15	
AR0177	The Why Factory MSc2 Design Studio	15	
AR0194	Bucky Lab A	15	
AR0216	Towards an inclusive living environment	15	
AR0225	MSc2 Studio: Urban (Re)Development Game	12	
AR0682	Heritage & Architecture Design Studio: Research and Architectural Design	15	
~~AR0897~~	Van Gezel tot Meester	20	
AR2AA015	Architectural Design Studio	15	
AR2AD012	MSc2 Dwelling design studio 'Global Housing'	15	
AR2AI011	Interiors Buildings Cities MSc2 Design Project	15	
AR2AP010	MSc2 Public Realm Design Studio	15	
AR2AT021	Agential Materialism Architecture Theory Design Studio	15	
AR2BO010	Borders & Territories International Design Studio	15	
AR2CP011	MSc2 Complex Projects Design and Research Studio	15	
AR2DC010	Architectural Design Crossovers Studio	15	
AR2FO010	The Delta Shelter	15	
AR2FST010	Studio 'High-Rise Culture'	15	
AR2MET011	Transdisciplinary Encounters	15	
AR2UA020	Urban Architecture MSc2 design studio	15	



Faculty of Civil Engineering and Geosciences

English BSc courses CIE available for exchange students

Head Phase (2nd Year), Specialization Geosciences				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
CTB2310	Soil Mechanics	BSc	5	3

Head Phase (3rd Year), All specializations				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
CTB3310	Surveying & Mapping	BSc	4	3

Head Phase (3rd Year), Specialization Structural Mechanics				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
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				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
CTB3350	Open Channel Flow	BSc	4	3
CTB3355	Hydraulic Structures 1	BSc	4	3

Head Phase (3rd Year), Specialization Water Management				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
CTB3360	Water Control	BSc	4	1,3
CTB3365-16	Introduction to Water Treatment	BSc	4	3
CTB3415	Water Management Research	BSc	4	4

Head Phase (3rd Year), Specialization Geosciences				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
CTB3385	Use of Underground Space	BSc	4	3
CTB3390	Mechanics and Flow in Pureus Media	BSc	4	3
CTB3425-17	Monitoring and Stability of Dikes and Embankments	BSc	4	4

Head Phase (3rd Year), Specialization Transport & Planning				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
CTB3370	Geometrical Design of Roads and Railways	BSc	4	3

Optional Courses, all specialization				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
CTB3311	Climate Impacts and Engineering	MSc	4	4

*Very limited place available for exchange students
**Participation depending on student's prior knowledge

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

Faculty specific requirements & restrictions

The Faculty of Civil Engineering and Geosciences has only limited possibilities to accept students who would like to undertake research-based project-/thesis work during their semester at TU Delft.

Only projects with a maximum workload of 10 EC are allowed and that students need to combine such a project with courses to obtain at least 15 EC.

Students are responsible themselves to find a suitable project in time and to provide the supervisor and the exchange officer with a work plan before arrival (please ask the CEG exchange officers for a template of this workplan).

Students wishing to do their thesis or a project for more than 10 ECTS can't be admitted as exchange students, but they will have to make this arrangement via the selected research group as guest researcher or trainee.

Exchange students at the Faculty of Civil Engineering and Geosciences follow at least 70% of their courses at this faculty except for students wishing to follow interfaculty study programmes TIL and CME. Students can choose 30% of their courses from other faculties.

Attending courses and obtaining credits at the Faculty of Architecture and the Built Environment is in principle not permitted. It is not allowed to extend your exchange period after the application.

Electrical Engineering, Mathematics and Computer Sciences (EEMCS)

BSc: Listed below are all English taught BSc courses at EEMCS available to exchange students. All students who come to TU Delft during their BSc level, or are in the first 3 years of their academic career, can only follow BSc courses.
You can either choose courses from the regular curriculum or follow a complete minor. A minor is a well-rounded package of courses on one main topic. Individual courses from a minor can not be followed separately, unless they are mentioned in the normal subject list. Exchange students can only enrol for one of the minors below through the international office of EEMCS.

MSc: All Msc courses at TU Delft are offered in English. You can find an overview of all MSc courses in the course catalogue. Almost all MSc courses are open to exchange students. If there is a limit to the number of students who can follow the course this is indicated in the course catalogue. You are responsible to check if you have the pre-required knowledge for the course. Courses in the course catalogue that are taught at different universities are not open to exchange students. You can follow MSc courses, if you are a MSc student or at least in the 4th year of your curriculum.

	English BSc courses available for exchange students			

BSc Minors

Minor Electronics for Robotics (Electrical Engineering)
https://www.tudelft.nl/en/eemcs/study/minors/electronics-for-robotics/

Minor Electrical Susatainable Energy Systems
https://www.tudelft.nl/en/eemcs/study/minors/electrical-sustainable-energy-systems/

MinorFinance
https://www.tudelft.nl/en/eemcs/study/minors/finance/

Minor Mathematics and Finance
https://www.tudelft.nl/en/eemcs/study/minors/mathematics-and-finance/

Minor Computational Science and Engineering (Applied Mathematics)
https://www.tudelft.nl/en/eemcs/study/minors/computational-science-and-engineering/

BSc Applied Mathematics

Course Code	Course Name	Cat.	EC	Period (Q)
	Applied Mathematics: 1st year			
AM1010	Mathematical Structures	BSc	6	1,2
AM1050-A	Modelling-A	BSc	5	3
AM1050-B	Modelling-B	BSc	5	4
	Applied Mathematics: 2nd year			
AM2020	Optimization	BSc	6	2
AM2050-A	Modelling 2A	BSc	3	3
AM2050-B	Modelling 2B	BSc	3	4
AM2080	Introduction to Statistics	BSc	6	1
AM2510	Decision Theory	Bsc	6	3
AM2520-P	History and philosophy of Mathematics	BSc	6	3
AM2520-H	History and philosophy of Mathematics	BSc	6	3
AM2530	Systems Theory	BSc	6	3
AM2550	Advanced Statistics	BSc	6	3
AM2560	Applied Mathematics:Codes and Cryptosystems	BSc	6	3
AM2570	Markov Processes	BSc	6	3
	Applied Mathematics: 3rd year			
AM3510	Mathematical Physical Models	BSc	6	3
AM3520	Logic	BSc	6	3
AM3530	Numerical Methods 2	BSc	6	3
AM3550	Combinatorial Optimization	BSc	6	3
AM3560	Advanced Probability	BSc	6	3
AM3570	Fourier Analysis	BSc	6	3

AM3580	Differential Geometry	BSc	6	3
AM3590	Topology	BSc	6	3
AM3500	Mathematics seminar	BSc	6	3

BSc Computer Science -Only available to BSc Computer Science Students coming to EEMCS

Course Code	Course Name	Cat.	EC	Period (Q)
	Computer science: 2nd year			
CSE2510	Machine Learning	BSc	5	1
CSE2215	Computer Graphics	BSc	5	1
CSE2520	Big Data Processing	BSc	5	1
CSE2310	Algorithm Design	BSc	5	2
CSE2525	Data Mining	BSc	5	2
CSE2120	Concepts of Programming Languages	BSc	5	3
CSE2315	Automata, Languages and Computability	BSc	5	3
CSE2530	Computational Intelligence	BSc	5	3
CSExxxx	Electives of the third year, several. As they are subject to change, please check the available 5 EC courses in the study guide	BSc	5	3

BSc Electrical Engineering

Course Code	Course Name	Cat.	EC	Period (Q)
	Electrical engineering: 2nd year			
EE2M11	Complex Analysis	BSc	5	1
EE2E11	Electrical Energy Conversion	BSc	5	1
EE2C11	Integrated Circuits	BSc	5	1
EE2M21	Linear Algebra and Differential Equations	BSc	5	2
EE2S11	Signals and Systems	BSc	5	2
EE2S21	Systems and Control	BSc	5	3
EE2T11-BP	Telecommunictions A voor Bridging Programme	BSc	3	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
EE3C11	Electronics	BSc	5	3

REMARKS

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

Faculty of Industrial Design Engineering

Bachelor courses Faculty of Industrial Design Engineering - Fall semester

(only available for exchange students enrolled at the faculty of Industrial Design Engineering)
The Faculty of **Industrial Design Engineering** offers fixed course packages. During the application students can indicate their first, second and third choice. Information is available here.
Since we cannot guarantee enrolment in your first choice, it is obligatory to mention a different second choice and a third choice in OSIRIS. In case you apply for two semesters you only have to choose for the first semester.

IMPORTANT : after you have selected courses/packages it is not possible to change. It is possible to cancel courses after arrival but it is not possible to add or change courses.

PEOPLE IN TRANSIT MINOR (PORTFOLIO NEEDED)*extra link

Subject Code	Subject Title – total	30 EC
IO3610-18	Human mobility	3
IO3620	Automotive styling	4
IO3630	Automotive technology	7
IO3640-18	Mobility Systems Design	7
IO3650	Automotive skills	6
WB3190IO	Automotive Safety & Human Factors	3

INTERACTIVE ENVIRONMENTS MINOR extra link*

Subject Code	Subject Title - total	30 EC
IO3870	Interaction studies	3
IO3872	Design strategies	3
IO3873	Design and Prototyping Studio	15
IO3874-19	Workshops	4
IO3875-19	Technical Studies	5

DESIGNING SUSTAINABILITY TRANSITIONS MINOR*

Subject Code	Subject Title - total	30 EC
IO3830-19	Sustainability issues and societal change	3
IO3831-19	Demistify Green	3
IO3832-19	Design approaches	6
IO3833-19	Masterclasses	5
IO3834-19	Ethics	3
IO3835-19	Design Challenge	10

ADVANCE PROTOTYPING MINOR*

Subject Code	Subject Title - total	30 EC
IO3850-19	Prototyping with/for Digital Fabrication (PDF)	9
IO3851-19	Prototyping with/for Emerging Materials (PEM)	6
IO3852-19	Advanced Prototyping Project (APP)	15

CONNECTED CREATIVITY MINOR (NEW IN 2020) *

Subject Code	Subject Title - total	30 EC
TBA	Information will follow later	

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

Bachelor courses Faculty of Industrial Design Engineering - Spring semester

(only available for exchange students enrolled at the faculty of Industrial Design Engineering)
See also here.

IMPORTANT : after you have selected courses/packages it is not possible to change. It is possible to cancel courses after arrival but it is not possible to add or change courses.

Offered courses Quarter 3 and Quarter 4:

Subject Code	Subject Title	EC
	Quarter 3 (choose 1 A course and 1 B course)	
	Choose 1 of the following A courses:	
IO2070	Design for sustainability *or*	**7,5**
IO3045	Video for designers *or*	**7,5**
IO3050	Mechatronics (technical and/or engineering skills required *or*	**7,5**
IO3020	Design and cultural impact	**7,5**
	+ Choose 1 of the following B courses:	
IO3010	Designing Connected Experiences *or*	**7,5**
IO2060	Interaction and Electronics *or*	**7,5**
IO3040	Software *or*	**7,5**
IO3060	Creating in Project teams *or*	**7,5**
IO3075	Towards circular product design	**7,5**
	Quarter 4 (choose 1 of the following fixed packages)	
Package 1 (10,5 EC)	IO1016zi Design Drawing for Adaptation Programme Int. students IO1080 Research and Design	**3** **7,5**
Package 2 (13,5 EC)	IO1016zi Design Drawing for Adaptation Programme Int. students IO1080 Research and Design ID 5040 Read a book	**7,5** **3** **3**
Package 3* (16,5 EC)	IO1016zi Design Drawing for Adaptation Programme Int. students IO1080 Research and Design 1 elective (to be announced in December 2020) 1 other elective course (to be announced in December 2020)	**3** **7,5** **3** **3**
Package 4* (9 EC)	IO1016zi Design Drawing for Adaptation Programme Int. students 1 elective (to be announced in December 2020) 1 other elective course (to be announced in December 2020)	**3** **3** **3**

Only students who have registered for Package 3 and 4 will be contacted about the offered electives

Master Courses for Exchange Students

For graduate exchange students or for students who studied 3 years or longer at the moment of application. Due to scheduling and availability incoming exchange students need to choose a course package. Free choice of courses is not possible.
Here 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 different second choice and a third choice in

OSIRIS. In case you apply for two semesters you only have to choose for the first semester. You can find course information on studyguide.tudelft.nl
Please note that some minor changes might occur in the offered course packages.
The academic year consists of two semesters (60 EC), each semester (30 EC) is divided in two quarters of each 10 weeks (15 EC).
Fall semester (Q1 + Q2) starts at the end of August and finishes
early February Spring semester (Q3 + Q4) starts early February and
finishes early July

Faculty of Mechanical, Maritime and Materials Engineering

English courses available for exchange students

At the faculty of Mechanical, Maritime and Materials Engineering (3mE) we do not offer English BSc subjects for exchange student. Exchange students (also BSc) can follow any MSc courses from our faculty as long as you have the pre-required background knowledge. In addition exchange students can take up to 49% of the courses at other faculties within TU Delft at BSc and or MSc level if offered in English.

Exchange students can enrol in any MSc course within the faculty even if they are electives offered at other faculties within TU Delft. Students can chose from any master from 3mE and are not limited within one master track.

The possibility to take projects is very limited at the faculty of Mechanical, Maritime and Materials Engineering. In case students want to do a project they have to contact the department themselves to make the arrangements before they arrive for the exchange and inform the International Office 3mE of the agreed work plan. Students interested in doing a project/thesis work need to be aware that the maximum workload (ECTS) cannot exceed half of the total ECTS. The main purpose of exchange is always following subjects. In case students only want to do a project or thesis than they can't be admitted as exchange student but as unpaid guest researcher. In this case they will not receive a grade for the project work and cannot follow any subjects.

For further questions and help with finding the best subjects for your case please email our international office: internationaloffice-3me@tudelft.nl

Faculty of Technology, Policy and Management

English BSc courses available for exchange students *

BSc Courses				
Course Code	**Course Name**	**Cat.**	**EC**	**Period (Q)**
TB241TA	Logistic 2	BSc	5	1
TB142IB:	Computer and Information systems	BSc	5	4
TB341IB:	I&C risk and control	BSc	5	3
TB243IA	Interconnected World	BSc	5	4
SPM6102	Process management and decision making	BSc	5	2
TBM007A	Critical thinking in engineering	BSc	3	4
WM0376TU	Ethics of Technological Risks	MSc	5	3
WM1110TU	English for Academic Purposes-2	BSc	3	1,3
WM1113TU	English for Academic Purpose-1	BSc	3	1,3
WM1137TU	Spoken English for Technologists-1	BSc/MSc	2	1,3
WM0903	Technological Entrepreneurship and Global Development (Otto Kroesen)	MSc	4	1,2
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
SPM9448	Methods for Risk Analysis and Management	MSc	5	3

*At TPM all Master courses are given in English.

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

Faculty specific requirements & restrictions

The Faculty of Technology, Policy and Management accepts students following courses. The Faculty TPM does not facilitate any (research) projects; these are only allowed if specifically agreed upon in the bilateral agreement.