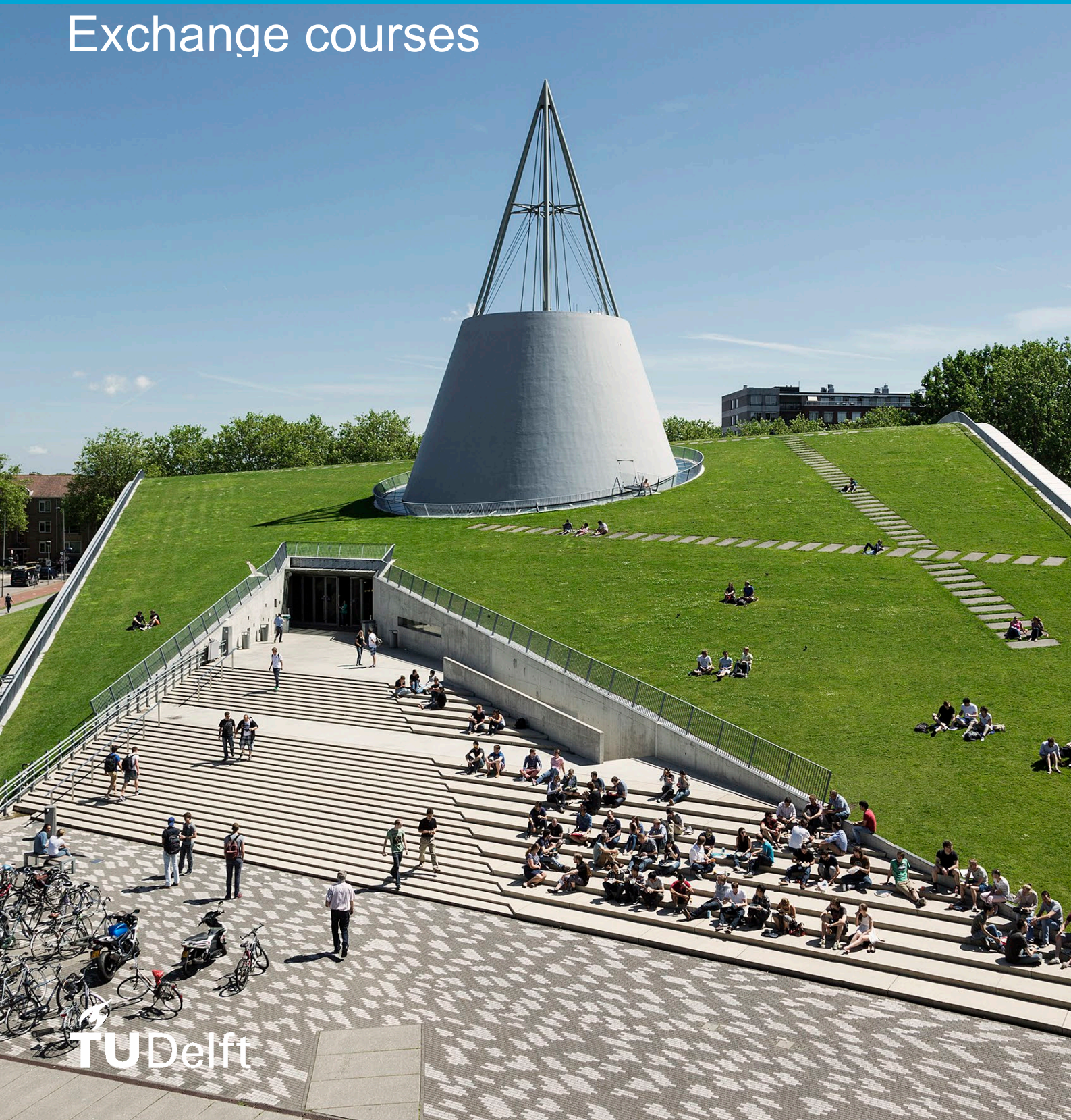


Academic Year 2024-2025

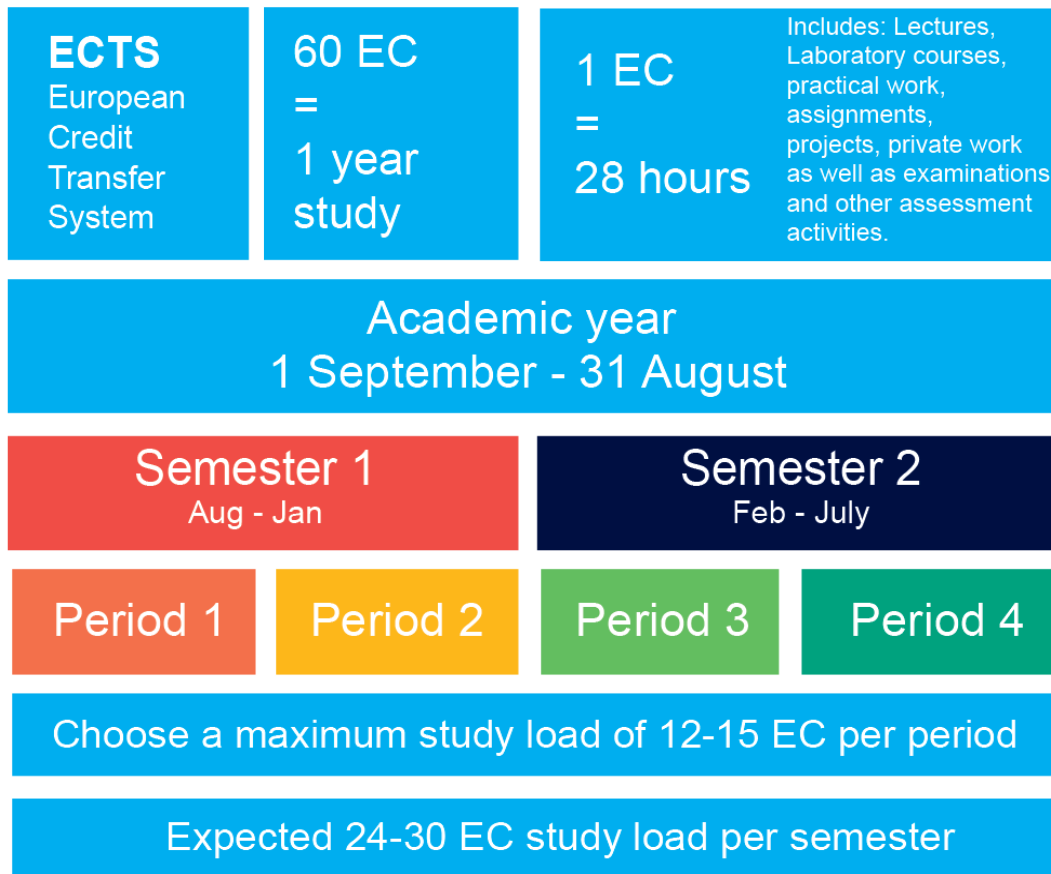
Electrical Engineering, Mathematics & Computer Science

Exchange courses



Course selection guidelines

The table below shows how the academic year is divided and what is expected of you from each semester and/or period. With the details below of how many EC you are expected to obtain, you will be able to make a study plan that will need to be approved by your home university and TU Delft.



Things to consider when you choose your courses

1. Will you be staying for 1 or 2 semesters? This will affect the number of EC you need to choose.
2. You must take a course load equal to 24-30 EC per semester, 12-15 EC per period.
3. More detailed information about the courses can be found via the [study guide](#). Guidelines on how to use it can be found [here](#).
4. Changes to your course plan after your arrival still need to meet the above requirements.
5. Carefully consider your course workload (minimum 24 EC), and the manageability of it. Students are not permitted to re-sit exams after the end of the official exchange period. Alternative course(s) will need to be taken at your home university when you return.
6. We advise students to take most of the courses at the faculty of EEMCS as it increases the chance of getting accepted and reduces the chance of schedule clashes.
7. At least 70% of the credits need to be taken at the faculty of EEMCS. The rest of the credits can be taken at other faculties (expect at the faculties of Industrial Design and Architecture and the Build environment). There are restrictions for courses from other faculties. Courses from the faculty of Aerospace are mostly not accepted. You can read more information on the [website](#).
8. Always check the study guide well in advance for the prerequisites. Changes in courses always need to be requested before the period starts!

EEMCS

English BSc courses available for exchange students

This is an overview of all English taught BSc courses at EEMCS available to exchange students. BSc courses not listed on this list are not available!

It is your responsibility to check the pre required knowledge indicated in the Study Guide.

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 mentioned below. 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 enroll for one of the minors below through the International Office of EEMCS.

You can follow MSc courses, if you are a MSc student or at least in the 6th or 7th semester of your undergraduate study. We do recommend that you are at least in the 7th semester. Check the information below per MSc programme what the restrictions are.

BSc Minors

Only available in the Fall semester (period 1 and 2)

You can only follow the complete minor, courses of the minor are not available separately

Minor Electronics for Robotics (Electrical Engineering)

<https://www.tudelft.nl/en/eemcs/study/minors/electronics-for-robotics/>

Minor Electrical Sustainable Energy Systems (Electrical Engineering)

<https://www.tudelft.nl/en/eemcs/study/minors/electrical-sustainable-energy-systems/>

Minor Finance (Applied Mathematics)

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

Minor Computational Science and Engineering (Applied Mathematics)

<https://www.tudelft.nl/en/eemcs/study/minors/computational-science-and-engineering/>

BSc Applied Mathematics

The BSc AM is in Dutch, but courses on this list can be given in English.

Course Code	Course Name	Cat.	EC	Period (Q)
Applied Mathematics: 1st year *				
AM1090	Introduction to Programming	BSc	6	1
AM1030	Linear Algebra 1	BSc	6	2
AM1040	Analysis 1	BSc	6	2
AM1050-A	Modelling-A	BSc	3	2
AM1050-B	Modelling-B	BSc	3	3
AM1070	Analysis 2	BSc	6	3
AM1080	Introduction to Probability Theory	BSc	6	4
Applied Mathematics: 2nd year				
AM2010	Linear Algebra 2	BSc	6	1
AM2080	Introduction to Statistics	BSc	6	1
AM2020	Optimization	BSc	6	2
AM2030	Ordinary Differential Equations	BSc	6	2
AM2090	Real Analysis	BSc	6	1 & 2
AM2520-P	Philosophy of Mathematics	BSc	6	1 & 2
AM2050-A	Modelling 2A	BSc	3	3
AM electives	https://studieqids.tudelft.nl/a101_displayProgram.do?program_tree_id=29800	BSc	6	3
AM2040	Complex Function Theory	BSc	6	4
AM2050-B	Modelling 2B	BSc	3	4
AM2060	Numerical Methods 1	BSc	6	3 & 4
AM2070	Partial Differential Equations	BSc	6	3 & 4
Applied Mathematics: 3rd year				
AM3500	Mathematics seminar	BSc	6	1 & 2
AM3570	Fourier Analysis	BSc	6	1 & 2
AM3590	Topology	BSc	6	1 & 2
AM3510	Mathematical Physical Models	BSc	6	1 & 2
AM3530	Numerical Methods 2	BSc	6	3
AM3540	Inverse Problems	BSc	6	3
AM3550	Graph Theory	BSc	6	3
AM3560	Advanced Probability	BSc	6	3
AM3580	Differential Geometry	BSc	6	3

* Due to a change in the BSc Applied Mathematics, year one courses will have a new course code in 2024-2025. The course codes are not available at the moment. When you apply, please use the old course codes, but be aware that you will need to use the new course codes for exam registration, Learning Agreements and Brightspace enrollment. We will communicate the codes, once known.

BSc Computer Science				
Note: Only available to BSc Computer Science Students enrolled in Exchange Computer Science				
Course Code	Course Name	Cat.	EC	Period (Q)
Computer science: 1st year				
CSE1100	Object Oriented Programming	BSc	5	1
CSE1300	Reasoning & Logic	BSc	5	1
CSE1400	Computer Organisation	BSc	5	1
CSE1200*	Calculus	BSc	5	2
CSE1500	Web and Database Technology	BSc	5	2
CSE1205*	Linear Algebra	BSc	5	3
CSE1305	Algorithm and Data Structures	BSc	5	3
CSE1505	Information and Data Management (pre requisite Web and Database Technology)	BSc	5	3
CSE1110	Software Quality & Testing	BSc	5	4
CSE1210*	Probability Theory and Statistics	BSc	5	4
CSE1405	Computer Networks	BSc	5	4
Computer science: 2nd year				
CSE2115	Software Engineering Methods	BSc	5	1
CSE2220**	Signal Processing	BSc	5	1
CSE2420	Digital Systems (Limited capacity)	BSc	5	1
CSE2510	Machine Learning	BSc	5	1
CSE2520	Big Data Processing	BSc	5	1
CSE2215	Computer Graphics	BSc	5	2
CSE2225**	Image Processing	BSc	5	2
CSE2310	Algorithm Design	BSc	5	2
CSE2425	Embedded Software (Limited capacity)	BSc	5	2
CSE2525	Data Mining	BSc	5	2
CSE2120	Concepts of Programming Languages	BSc	5	3
CSE2230**	Multimedia Analysis	BSc	5	3
CSE2315	Automata, Computability and Complexity	BSc	5	3
CSE2430	Operating Systems (Limited capacity)	BSc	5	3
CSE2530	Computational Intelligence	BSc	5	3
Computer science: 3rd year				
CSE3xxx (Electives)	Electives of the third year, several. As they are subject to change, please check the available 5 EC courses in the study guide (link below). The research project is not available.	BSc	5	3
	https://studiegids.tudelft.nl/a101_displayProgram.do?program_tree_id=29795			
You need to register for elective courses before the deadline!				

Courses with * are basic mathematic courses

Courses with ** are related to eachother; knowledge of the first course necessary to follow the second and to follow the third you need to have pre requisites of the previous two courses.

BSc Electrical Engineering					
Course Codes 2024-2025	Course Name	Cat.	EC	Period (Q)	Old codes 2023-2024 *
Electrical engineering: 1st year					
EE1P1	Electricity & Magnetism	BSc	5	3	
EE1E1	Electrical Energy Fundamentals	BSc	5	4	
Electrical engineering: 2nd year					
EE2M1	Probability and Statistics	BSc	5	1	
EE2C1	Transistor Circuits	BSc	5	1	
EE2S1	Signals and Systems	BSc	5	1	EE2S11
EE2P1	Electromagnetics	BSc	5	2	EE3P11
EE2T1	Telecommunication and sensing	BSc	5	2	EE2T21
EE2S2	Systems and control	BSc	5	3	EE2S21
EE2P2	Semiconductor Physics and Devices	BSc	5	3	
EEX01	Introduction to Machine Learning	BSc	5	3	
EEX02	Modelling, Algorithms and Data Structures	BSc	5	3	
EEX03	Communications Network	BSc	5	3	
EEX04	Microsystems and Sensors	BSc	5	3	
EE2C2	Mixed-Signal Circuits and Systems	BSc	5	4	EE2C11

Electrical engineering: 3 rd year					
EE3P11	Electromagnetics	BSc	5	3	
EE3D11	Computer architecture and organisation	BSc	5	3	
EE3C11	Electronics	BSc	5	3	

* Due to changes in the BSc Electrical Engineering curriculum, some course codes will change in the 2024-2025 academic year and course content will be similar, but not identical. For information about the course content, use the old course codes in the studyguide. For exam registration, Learning Agreements and Brightspace enrollment, please use the new course codes.

English MSc courses available for exchange students

You can follow MSc courses, if you are a MSc student or at least in the 6th or 7th semester of your undergraduate study. We do recommend that you are at least in the 7th semester.

All MSc courses at TU Delft are offered in English.

The MSc programmes of the faculty of EEMCS and their restrictions are mentioned below.

If there is a limit to the number of students who can follow the course this is indicated in the study guide.

You are responsible to check if you have the prerequisite knowledge for the course.

Courses in the study guide that are taught at different universities are not open to exchange students.

Accessing the study guide

You can access the study guide via the link below. To then see the course list of the Master programme you are interested in, you need to select:

Organization: Electrical Engineering, Mathematics and Computer Science

Education type: Master

Education: Choose the Master you want to see the courses of.

<https://studiegids.tudelft.nl/menuAction.do?toolbarSelection=tree>

MSc Applied Mathematics (AM)

Restrictions mentioned below or stated in the study guide per course. Check the study guide.

WI4207	Continuous Optimization	Not available for Exchange students, classes are outside of TU Delft
WI4209	Systems and Control	Not available for Exchange students

MSc Computer & Embedded Systems Engineering (CESE)

Some courses have limited capacity, especially the lab courses. Check the study guide.

CESE4030	Embedded Systems Laboratory	Not available for Exchange students
CESE4035	Computer Arithmetic	Not available for Exchange students
CESE4040	Processor Design Project	Not available for Exchange students
CESE4120	Smart Phone Sensing	Might not be given in 2024-2025.

MSc Computer Science (CS)

Note: Due to a redesign of the MSc CS, courses for 2024-2025 are only available for **MSc Exchange CS students**

Due to the redesign, courses for 2024-2025 are not known at the time of application. Select courses based on the study guide 2023-2024 and a course proposal will be sent by email after 1 April 2024.

MSc Data Science & Artificial Intelligence Technology (DSAIT)

Courses are not available for Exchange students 2024-2025

MSc Electrical Engineering (EE)

No restrictions unless stated in the study guide.

MSc Sustainable Energy and Technology (SET)

No restrictions unless stated in the study guide.