Wiskunde Informatica Studievereniging



Minor brochure 2019-2020





Disclaimer

This brochure is made with care, we strived to make all the information complete and correct. However, imperfections caused by human mistakes can occur, which is why we can not guarantee de correctness and completeness of the data that is shown.

Contact details CH

Opening hours

Monday from 13:00 until 17:00 Tuesday until Friday from 9:00 until 17:00

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Website

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Introduction

The minor is a cohesive collection of courses worth a total of 30 ECTS credits, accounting for six months of your studies. You take your minor in the first semester of your third Bachelor's year. You are entirely free in your choice of minor. It therefore provides an appealing opportunity to look beyond the bounds of your own discipline.

Over the years, we have noticed that the general information about minors was not always in line with the experiences of our students. Therefore we composed a brochure with the experiences of our Applied Mathematics and Computer Science students. In this brochure you can find general information about following a minor and a number of student experiences. This way we hope to give you more insight in the possibilities that the minor offers you.

We want to improve and update this brochure every year. If you have a followed a minor that is not yet included or have different opinion on a certain minor, contact us at education@ch.tudelft.nl.

Good luck with choosing your minor!

Kind regards,

Louise Zwep and Raoul Bruens Commissioners of Education W.I.S.V. 'Christiaan Huygens'

Louise Zwep - Applied Mathematics Raoul Bruens - Computer Science

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Overview of TU Delft minors

On the right you can find an overview of the minors at TU Delft that are open to Applied Mathematics and Computer Science students. All thematical minors of the TU Delft are taught in English, excluding the minors: Educatie, Ondernemerschap: Med-Tech Based Entrepreneurship, Ondernemerschap: Technology Based Entrepreneurship and Security, Safety and Justice.

Bridging minors

A bridging minor offers students the possibility of admission to a Master's programme other than their general Master's (the Master's degree programme in the same discipline as their Bachelor's degree programme). A bridging program often requires more than 30 EC and is therefore not always possible as your minor. Contact the relevant faculty for advice.

Minor at another university in the Netherlands

If you want to follow a minor at another university, this minor must be accepted by the exam committee of your degree program. Minors at the other universities of technology are usually accepted. Make sure to check beforehand whether you may be admitted to the minor of the relevant university. If so, you must register at that university too.

The TU Delft has a minor cooperation with Leiden and Erasmus. The minors at Erasmus University Rotterdam (EUR) constitute to 15 EC in total. Following two EUR minor is not possible and the options for doing electives there is small, so it is advised to follow electives at TU Delft. Minors at Leiden University are worth 30 EC, but are not clustered in the first semester like in Delft. Information about this is available in the study guide of Leiden University.

Minor	Faculty	For AM	For CS?	Selection
Advanced Prototyping	IDE	\checkmark	\checkmark	
Bend and Break	CEG		\checkmark	
Biomedical Engineering	3mE	\checkmark	\checkmark	√
Communication Design for Innovation	AS	\checkmark	\checkmark	
Computational Science and engineering	EEMCS	\checkmark	\checkmark	
The Delta Expert: water for the future	CEG	\checkmark	\checkmark	
Companies and innovation	TPM	\checkmark	\checkmark	
Educatie	AS	\checkmark	\checkmark	
Electrical Sustainable Energy Systems (ESES)	EEMCS	\checkmark	\checkmark	
Electronics for Robotics	EEMCS	\checkmark	\checkmark	
Finance	EEMCS	\checkmark	\checkmark	
Geo-resources for the Future	CEG	\checkmark	\checkmark	
Heritage and Design	ВК	\checkmark	\checkmark	
Integrated Infrastructure Design	CEG	\checkmark	\checkmark	
Interactive Environments	IDE	\checkmark	\checkmark	
International Entrepeneurship and Development	TPM	\checkmark	\checkmark	\checkmark
Mathematics and Finance	EEMCS	\checkmark	\checkmark	
Modern Physics	AS	\checkmark	√	
Offshore Wind Energy	AE	\checkmark	\checkmark	
Ondernemersschap: Med-Tech Based Entrepeneurship	TPM	\checkmark	\checkmark	
Ondernemersschap: Technology Based Entrepeneurship	TPM	\checkmark	\checkmark	\checkmark
Projectmanagement from Nano te Mega	CEG	\checkmark	\checkmark	
Responsible Innovation	TPM	\checkmark	\checkmark	
Robotica	3mE		√	√
Security, Safety and Justics	TPM	~	\checkmark	
Software Development and Data Analytics	EEMCS	~		
Spaceflight	AE	\checkmark	√	
Sports Innovation	IDE	√	√	
Transport, Infrastructure and Logistics	CEG	√	√	
Zeiljachten	3mE	√	√	



Study Abroad

The minor Study Abroad gives you the opportunity to study at a foreign university. Experience abroad is seen as beneficial to your university education and personal development. The spots at other universities are limited, so you will be selected based on study progress, grades and motivation. It is required that you finished all your first year courses.

Preparing for a minor abroad starts early: six to nine months before your departure. Firstly, you need to decide where you would like to study by selecting three universities. Information about possible universities is available on studyabroad.tudelft.nl. Check if you can create a coherent set of courses worth 30 ECTS and make sure there are no language restrictions for you.

Contact the International Office EEMCS for the next steps in your application process. Be sure to check the deadlines. The internal selection deadline is generally in January. Within a month you will hear if you are selected for one of your choices.

Create your own minor

TU Delft offers plenty of carefully compiled minors. Should you however choose to create your own minor, than you must submit your well-founded application to the Board of Examiners of your own Bachelor's degree programme. This demands a high degree of independence and ample preparation time. Also take into account the requirements that need to be met for your degree programme itself. Personal timetables can be compiled in BlackBoard in the tab My Student Info, under 'My Timetable'. The timetables will be finalized by mid-August.

Deadlines and registration

March 10 - April 22	Registration Education Minor
April 10	Minor Event
May 3 - May 31	First registration period
July 1 - July 31	Second registration period

All above data are also mentioned on minor.tudelft.nl.

Website

The information in this brochure gives you a short overview especially for AM and CS students. More information about minors is available at minors.tudelft. nl. This is the ideal starting point to explore the possibilities a minor offers or to check more details of a certain minor. Also updated information about registration and deadlines is stated here.

Minor abroad



Name: Simone Vis Study: Applied Mathematics Minor: Abroad in Australia When: 2018-2019

Hi, my name is Simone Vis and I am currently 21 years old and a third year bachelor student Applied Mathematics. From July till December 2018, I went on

exchange as part of my minor abroad to the University of Sydney in Australia. I always wanted to study abroad and preferably outside Europe. I chose to sign up for universities in English-speaking countries because it would be easier to choose courses. After registration, I was accepted at the first university of my preference, the University of Sydney. Then came the arrangements such as choosing courses, arranging housing and a student visa. I chose to take economic (math) courses because I wanted to broaden my horizons in economics.

The University of Sydney is a great university with 60,000 students from which around 25 percent are internationals, most of whom are Asians or Europeans. This gives you the possibility to get to know new cultures and make friends all over the world. I am still in contact with some friends. The university also offers courses in almost all fields and not specifically for technical studies, which is great if you want to follow courses in different fields. All courses are fairly easy to follow, which allowed me to do many other things besides my studies. For example, I learned to scuba dive, I became a member of an outdoor association to enjoy hiking, snorkelling and camping in the nature around Sydney and I undertook many fun activities with other exchange students. I had a great time in Sydney, but one person can adapt more easily than another. What is the best tip to feel at home at the other side of the world? Build up your circle of friends and life there as quickly as possible and enjoy it, because it's over before you realize it.

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Moreover, the semester already finishes at the end of November, which gives you the opportunity to travel for 2 months afterwards. At least, this is what I and many of my friends did because there is a real backpacker culture in Australia.

So if you are interested in making friends all over the world, exploring other cultures and studying in a completely new setting, than studying abroad will definitely be something for you!

Coordinator: Jitske van der LaanMail:exchange-eemcs@tudelft.nlFaculty:EEMCS



Minor as Computer Scientist



Name: Laetitia Molkenboer Study: Computer Science Minor: Safety Security & Justice When: 2018-2019

The minor Safety, Security, and Justice focusses, like the name says, mostly on how do we keep the world safe and secure. However, there are more sides to safety and security than one might think. Because of the combination with the university of Leiden, you learn not only about the more technical side of safety and security, but also the ethics and justice issues surrounding safety and security. Where the TU Delft teaches you about models one can use to approach a safety or security problem, Leiden makes you think about topics such as when are security measures invading privacy or how can one research a crisis.

The minor is split, as mentioned before, between two universities. The courses are as follows: in the first quarter you have the classes Researching Crisis, Security Management and Law and Security taught by Leiden University and Security and Technology taught by the TU Delft. The course Researching Crisis and Security management works towards a final paper the students will have to write, which will be a research proposal. The course Law and Security will also end with a paper in which students have to use the topics that were discussed during the course. The course Security and Technology will have a final exam covering everything discussed during the course. The second quarter consists of Terrorism and Counterterrorism taught by Leiden University and Security and Technology and Security Integration Project taught by the TU Delft. The course Terrorism and Counterterrorism tries to show that not all assumptions that we have about terrorism are true or only partly true, while also covering show history. Students in this class will have to write a midterm paper and make a final exam. The course Security and Technology discusses the ethical and security implications of new emerging technologies and with a group paper you discuss an upcoming technology. Finally, the course Security Integration Project focuesses on how a security or safety incident in a multiactor environment can be explained.

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This cooperation of universities means you will sit in class with student from a wide range of studies. The professors try to use that unique opportunity to make students aware of different sides to the same story. Where TU Delft students might approach a problem in one way, students from Leiden university or the Erasmus university might approach the same problem in a different way.

VingeCoordinator:Wolter PietersMail:W.Pieters@tudelft.nlFaculty:Leiden & Delft



Minor as Mathematician



Name: Joost Gobbels Study: Applied Mathematics Minor: Finance When: 2018-2019

My name is Joost Gobbels and currently i'm in my third year of Applied Mathematics and last year I took the Finance minor. After finishing my first 2 years I had the idea that I had quite a lot of mathematical knowledge, but that I had much less experience applying this knowledge, therefore I choose to do the minor Finance.

The minor begins with a lot of general information because you need to get used to financial terms. After this all subjects start to go more in-depth. What I liked most about the minor was that it covered a large variety of topics, for example, in Monte Carlo and Time Series, you are modelling different options and stocks. In Current Issues in Mathematical Finance, Principles of Asset Trading and Risk Management you are focusing on daily application of different models and regulations and in the courses Option Valuation and Introduction to Mathematical Finance you go more in-depth about the theory behind all the models.

As a mathematician, the minor shouldn't be very hard for you, but you shouldn't

underestimate it. The minor does have quite a lot of mandatory homework exercises, which forces you to keep up with most of the subjects. And this is really necessary, because at the end of Q2 you have 5 exams as most subjects are semester subjects.

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I would definitely advice the minor to all students who want to see applications of their mathematical skills in the field of finance, especially students who liked courses in statistics and probability theory who also want to see some computational examples of their gained knowledge.



More testimonial

In this booklet we provided you with a testimonal of a student who did their minor abroad and two students (from Computer Science and Engineering and Applied Mathematics) who did their minor here in Delft. If you are interested in more stories from all the different minor from delft, be sure to check out our online testimonial database via wisv.ch/minors!

Also if you have any more questions about doing your minor, how to applicate, what other options there are of anything else, don't hasitate to contact us!



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