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International Experience

Where innovation starts

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Dear student,

As an ambitious TU/e student you of course aim to show some international experience when you graduate, to strengthen your position on the labor market.

If you do not have that international experience yet, we will be happy to assist you during this process. Please keep in mind, however, that international experience is an encouraged but not a mandatory element of the master programs: we will help you decide whether your goals are best served by going abroad or by continuing your education entirely at the TU/e. The challenge of going abroad to not only gain experience but also be an ambassador of the TU/e is really a challenge for our stronger students.

In this brochure we summarize the main steps involved in obtaining the international experience from getting your plans for international experience approved through making the necessary arrangements to getting back to Eindhoven.

Good luck!

The internationalization team of the Graduate Program of Computer Science¹

¹ See the last page of this document

1 Getting your international experience approved

As you are taking a master program in English we expect you to get international experience also in an English speaking environment. TU/e has established a number of English level requirements. You should satisfy (at least) one of them:

- VWO or HBO grade for English is equal to or higher than 7
- IELTS, at least 6.5
- TOEFL, at least 90 points
- Cambridge, CPE-C including CAE-E.

If you do not meet this requirement, you must take a diagnostic English test to assess your level of English².

We strongly recommend starting the preparation for going abroad well in advance. Foreign universities might have application deadlines, and making arrangements both in Eindhoven and abroad is likely to take time as well!

As the general rule, we believe that the international experience, whether obtained by following courses, conducting a research project or industrial internship, should help you to specialize in a certain area of Computer Science. We distinguish two cases:

1. Very good³ students who would like to follow courses at one of our partner universities⁴ as part of the Erasmus program, and have chosen the host institution already can go directly to the International Office (International.office.win@tue.nl) and Mr. Elmar Veenendaal will take care of nominating you. Once you have been admitted the appropriate Learning Agreement (courses) should be prepared and signed, see Section 1.1 below.

Please keep in mind that most universities work with semesters or trimesters, and that the start/end of the host university's trimester/semester could conflict with the end of our quarters. You should appropriately plan your stay abroad.

As part of the application procedure you will receive an invitation to take the Online Language Assessment. This assessment is mandatory: once you are back in Eindhoven the same assessment will be administered again and the tests' results will be compared to monitor your progress.

² The Center for Languages and Intercultural Communication (CLIC: Stu.clic@tue.nl) provides English courses at a variety of CEFR levels. If you want more details on these courses, please go to: <https://educationguide.tue.nl/broadening/language-courses/> More information about assessments and levels can be found here: certified assessments, exams, CEF-levels

³ ,i.e., students participating in the Honors Academy, Computer Science Honors Program or having the average of 7.5 or higher.

⁴ <https://www.google.com/maps/d/viewer?mid=z96mleUOgBxs.ktYuCNyPOGFM>

2. In all other cases, meaning:
- you are interested in participating in a research project/industry internship, or
 - you plan to follow courses outside the current network of partner institutions, or
 - you are a very good student (as above) but have not found a host institution in the Erasmus list, or
 - you do not qualify as a “very good student” as described above
- please check the following procedure.

1. Have you completed the homologation/mandatory/core courses of your master program?
 - a. If not, you can only take part in the international experience program if neither the courses still to take nor the resit examinations for courses you failed fall within the period you want to use for going abroad. Note that in principle you cannot replace mandatory/core courses from the TU/e by courses/internship to be taken abroad: the examination committee can grant exceptions to this rule.
 - b. In no case will you be allowed to replace a mandatory/core course you took and failed by an equivalent course to be taken abroad.
 - c. (Intended) stay abroad cannot be considered a reason justifying additional examination attempts.
2. Have you decided in what area of Computer Science would you like to specialize during your stay abroad?
 - a. If no, please contact our internationalization coordinators, dr. Joaquin Vanschoren (j.vanschoren@tue.nl) or dr. Nicola Zannone (n.zannone@tue.nl) to discuss your professional interests.
 - b. If yes, is there a local researcher working in this area? If yes, you should contact this local researcher and ask her⁵ to act as your local supervisor (and the second-year mentor). If no, please contact prof. Mark van den Brand (m.g.j.v.d.brand@tue.nl), who will act as your local supervisor or assign a local researcher who is an expert you might not have been aware of. If you are not sure whom to contact please check this with dr. Vanschoren or dr. Zannone.
3. Once you have contacted the local supervisor, she needs to decide whether she would like to supervise you.
 - a. For more research-oriented internships the student should meet requirements comparable to a Capita Selecta invitation.
 - b. For courses abroad the decision is up to the discretion of the local supervisor; however, it seems plausible that more students should be allowed to follow courses than to participate in research projects.
 - c. For internships in industry the requirements are similar to graduation projects in the industry.
4. If the local supervisor has accepted you, then together with her you should choose the host institution abroad, the form of the international experience (classes/internship) and eventually the contact person at the host institution. Unless the local supervisor is personally familiar with the intended host institution, she should check the quality of the institution. Examples of recognized institutions:
 - a. the institution is a university and it is entitled to confer degrees comparable with the Dutch WO master; insights in foreign education systems can be obtained by consulting the Nuffic site <https://www.epnuffic.nl/en/#tab-foreign-education-systems> Those are the only institutions recognized if the student intends to follow courses abroad.

⁵ Here and elsewhere we use “she” and “her” to refer to individuals whose gender is unknown or of no importance.

- b. the institution is a well-known international research center comparable to the Dutch CWI, e.g., INRIA (France), the Max-Planck Institute for Informatics (Germany), Swedish Institute of Computer Science (Sweden), CERN (Switzerland) or Simula Research Lab (Norway).
- c. the institution is a research division of a large international company (e.g., Microsoft, IBM, Google).
- d. the institution is a company and the project proposed is similar to the customary graduation projects/internships in the industry.

When selecting the host institution please keep in mind that most universities work with semesters or trimesters, and that the start/end of the host university's trimester/semester could conflict with the end of our quartiles. Furthermore, you might consider the climate, cost of living, crime rate, cultural habits, accessibility and travel costs.

At this point you should also fill in the study program form (Form 1)⁶ and get it signed by the local supervisor.

- 5. You should contact the contact person at the host institution to check the admission criteria and apply formally⁷. If you intend to follow courses at a partner university within the Erasmus program, the International Office will nominate you. Once you have been admitted the appropriate Learning Agreement (courses) or Training Agreement (research projects or industry internships) should be prepared and signed.
 - a. International Office can help with preparing the Learning Agreement. Discuss the choice of the courses with the local supervisor and ensure that the courses you have selected meet the requirements of Section 1.1 below.
 - b. Companies should sign the Training Agreement offered by TU/e. Under exceptional circumstances a different Training Agreement might be approved. By preference, the Training Agreement should not restrict access to the results obtained or report produced during the internship. In any case, the Training Agreement should allow TU/e lecturers to assess the quality of the work conducted during the internship.
 - c. Please keep in mind that the agreements are binding and only certain exemptions some of the agreements can be changed, e.g., to alter your course package that is written in the contract before you leave. The changes have to be corresponded as quickly as possible with the International Office so the examination commission can decide.
- 6. Finally, you should collect all the documents obtained so far in a form of a portfolio (indicate the name of the host institution, the name of the supervisor at the host institution, the name of the local supervisor, list of courses and course descriptions/internship project description, Learning/Training Agreement, study program). The portfolio should be submitted to the study advisor internationalization when it is complete.
 - a. Should the study advisor deem it necessary, he might invite you to discuss the portfolio in person.

⁶ <https://educationguide.tue.nl/programs/graduate-school/masters-programs/computer-science-and-engineering/graduation/graduation-checklist/>

⁷ See the "Formal application" section below.

- b. For courses you intend to follow outside the European Union, the study advisor will explain how you can submit a request to the examination committee to allocate ECs to each of the courses you intend to follow⁸.

1.1 Learning agreements

When selecting courses abroad please ensure that

- i. the courses you intend to follow are master-level courses;
- ii. the courses you intend to follow are relevant for the domain of your master program (business information systems, computer science and engineering, embedded systems) or track (data science in engineering, information security technology), and
- iii. there is no overlap between the courses you have followed in Eindhoven or intend to follow after your return, and the courses you intend to follow abroad;
- iv. there is no undesired overlap between the research project you have followed in Eindhoven or intend to follow after your return (e.g., Honors projects, Capita Selecta assignments, seminar projects, graduation assignment), and the research project you intend to carry out abroad.

These requirements can be (partially) relaxed in the case of extra-curricular activities, such as professional development component of the Honors Academy.

1.2 International experience in the Bachelor program

Electives

In case you want to take electives at a university abroad, we advise you to get in touch with your study counsellor as soon as possible to discuss

- the necessary adjustment of your program schedule, and
- the requirements to have your elective program approved by the Examination Committee.

For Sfs: studycounselorSfs@tue.nl for WbS: studycounselorWbS@tue.nl for Mathematics j.c.v.d.meer@tue.nl

For information on procedures (e.g. Erasmus exchange program within Europe) and (financial) support we refer to the site of the International Office

EIT Digital Master School

If you are interested in obtaining a more extensive international experience, please consider joining one of the EIT Digital Master programs.

The EIT Digital Master School offers two-year European Master's programs that combine education in a technical subject with education in innovation and entrepreneurship skills. The Master School is delivered by a consortium of 20 top European universities and is led by EIT Digital. Students follow a scheme in which they study the first basic year of their master program at one university of the consortium, and the second specialization year at another university of the consortium. Upon completion, students receive a double degree from both universities and certificate of the European Institute of Innovation and Technology.

⁸ Since all European Institutions use ECs, no such conversion is required for courses given in that EU.

TU/e is leading the “Data Science” master program of the EIT Digital Master School, and participates in the “Embedded Systems” master program. In both master programs TU/e offers both a first year basic program and also a second year specialization program. TU/e's specialization program within the Data Science major is on “Business Process Intelligence”; TU/e's specialization program within the Embedded Systems program is on “Embedded Networking”.

EIT Digital offers an attractive scholarship package including a travel and installation grant. Further information can be found at <http://www.masterschool.eitdigital.eu/>.

2 Formal application

This section is mostly relevant if you intend to follow courses abroad. Application procedures at companies or research institutions differ greatly.

Different institutions tend to have different application procedures that can usually be found at the institution website. During the application procedure it is usually made clear which specific documents and/or agreements have to be submitted. Gathering these forms can take quite some time. We therefore strongly recommend that you start applying as soon as possible.

The application procedure involves submitting a number of documents. Before or at least during the application procedure you should be aware of the requirements that apply to you. If you have any questions regarding these documents please contact the International Office. Commonly requested documents are:

- Academic Record / Transcript of Records: An overview of Experiences that have been completed (made by the International Office)
- Identification
- Motivation letter: Some institutions select, among other factors, applications based on a letter of motivation.
- English level: Some institutions require an additional level of English skills based on a rating scale such as IELTS or TOEFL (The Centre for Communication Language and Technology offers courses to prepare TU/e students to cope adequately with their international study environment)
- Résumé
- References: In some procedures references are required from lecturers who have experience of you in an academic context

3 Making Arrangements

As well as organizing your application to the host university, there are a number of matters that you need to take care of before you can start studying abroad. We strongly advise you to finish these arrangements as soon as possible. These matters are described below. If you have any questions about any of these matters you can also contact the International Office of Mathematics and Computer Science (io.win@tue.nl) or the TU International Office (GoingAbroad@tue.nl)

3.1 Arrangements for abroad

Please note: the more important place to look for information to make the arrangements as an international student is on the website of your host university. The host university will provide you with the most up-to-date and relevant information that applies to you. The host university normally offers a guide covering all matters that you need to consider before arrival and during your stay abroad.

The most important things you should consider are given below. These can normally be found in a guide to your host university:

- Date of arrival / return home. Find out when the academic period of your semester starts and ends. Also consider possible introductory programs that you want to attend. Based on this information, decide on the date of arrival and possibly also the date time of returning home.
- Housing. Find out how accommodation is organized in the city of your host university and arrange accommodation for your stay abroad, while keeping in mind the planned arrival and departure dates.
- Travel arrangements. Decide how you want to travel to the city, your accommodation and the host university. Make sure you have enough time to buy your plane ticket if necessary.
- Introduction activities. Most host universities offer a number of activities to introduce you to your new study environment aimed at new Master's students and/or newly arrived international students. Check what is available and what you would like to attend.
- Get in touch with fellow students. See which students from TU/e will join you to your destination. You can also look for active (international) groups on social media. Both can help you check any matters that might be important for you while making your arrangements and during your stay.
- Get ready to be an international student by applying for an International Student Identity Card. ISIC, The International Student Identity Card allows students the world over to prove their official student status and make the most of targeted student benefits and discounts in close to 125,000 locations across almost 130 countries.

3.2 Erasmus+ Programme

The Erasmus+ Program is designed to support Program Countries' efforts to efficiently use the potential of Europe's human and social capital, while confirming the principle of lifelong learning by linking support to formal, non-formal and informal learning throughout the education, training, youth and sport fields. The Program gives opportunities to students, trainees, staff and volunteers to spend a period abroad to increase their skills and employability. It supports organizations to work in transnational partnership and to share innovative practices.

For an overview of all Erasmus+ actions, see the website of the EACEA, see http://eacea.ec.europa.eu/erasmus-plus_en

3.3 Arrangements at TU/e

The most important matters that are normally dealt with through TU/e are given below:

- Scholarship. There are many scholarships that might apply to your International Experience. Which scholarships apply can depend on factors such as the type of enrollment (e.g. exchange contract or not), the destination (e.g. inside or outside Europe), tuition fees etc.
 - If you intend to follow courses in one of the partner institutions as part of the Erasmus program, you might be eligible for the Erasmus scholarship. In such a case, the International Office will apply on your behalf for a scholarship, and you will be informed about any further action that you need to take.
 - TU/e has its own fund, TU/e Fund International Experience, formally known as TU/e Fonds ECTS-punten Buitenland. .
 - Finally, a good place to start checking for scholarships is the scholarships section of Nuffic⁹.
 - Please check the TU/e Funds Exchange website¹⁰ on a regular basis for new updates about grants, funds and scholarships.
- Insurance. TU/e has arranged collective business travel insurance for students who are going abroad for a study or an internship. The International Office will apply for such insurance through the Student Service Center (STU). Check the Lipmann Insurance, it is especially made for students that will reside temporary in a foreign country.
- Visa. The government of the destination abroad may require you to apply for a study visa. If you are not sure, visit the relevant government's website for more information about the policy and the application procedure. More information available at NUFFIC: www.nuffic.nl

3.4 Arrangements at home

At DUO you can:

- Hand in your 'OV-studentenkaart' temporarily to get a compensation for your time abroad. More information can be found on the website of DUO.
- When applicable: apply for a 'uitwonende beurs' for the study abroad period

At your bank you can:

⁹ <https://www.epnuffic.nl/en/scholarships>

¹⁰ <https://educationguide.tue.nl/broadening/exchange-programs-for-studying-abroad/preparation/grants-funds-and-scholarships/tue-funds-exchange/>

- Authorize parents/partner so they can help you in case of emergencies or make sure you have access to 'internet banking'.
- Arrange a credit card (when applicable).

Health:

It is advisable to get vaccinations when travelling to other countries, in order to prevent your becoming ill. The measures you need to take depend on your living circumstances, the duration of your stay, your personal health and any vaccinations you may already have had. Please consult the Local Health Service 'GGD' for information about vaccinations and health advice for your country of destination.

3.5 Prepare for leaving

When all the above arrangements have been made, you should start preparing for your departure to your destination. A number of suggestions to consider when preparing for your departure are given below:

- Host universities typically offer a guide for incoming international students. This normally contains a general checklist, but also aspects that apply specifically to your destination. It is important to take these aspects into account.
- Consult the website of your destination's government to find out about any specific policies and/or requirements, especially for intercontinental destinations. For travel advice consult the Ministry of Foreign Affairs concerning up to date information about safety in your country of destination.

4 Staying abroad

During your stay abroad there will normally be little contact with the TU/e International Office. However several matters may arise between you and your institution abroad. Make sure you know your contact person at your institution with whom you can discuss these matters if necessary. We're also willing to help you during your stay international.office.win@tue.nl

During your stay abroad you might want to change the courses you want to complete. Before doing so, consult your local supervisor to get advice about the courses you want to take. Beware: any change of the learning agreement is subject to approval of the examination committee.

The form must be updated and sent to TU/e. You can revise your former documents or you can fill them in again. You can find the form on the International Experience webpage in the TU/e digital study guide. You must send the updated Learning Agreement to the International Office.

5 Once you are back...

After your stay abroad you will return home. Please do not forget to make the appropriate arrangements before leaving and after returning home.

Before leaving

If you have opted for following courses abroad, you must request a final Transcript of Records you have completed, including the corresponding grades. If possible, bring the original document back to TU/e. If your host university cannot provide this document before you leave, arrange for the document to be sent to you in the Netherlands. Make sure your host university officially signs the Transcript of Records document.

After returning home

1. If you have opted for following courses abroad, you should deliver the Learning Agreement to the International Office.
2. If you have participated in the research project/industrial internship the local supervisor should submit the Internship Assessment form including the grade.
3. Transcript of Records: deliver, by letter, the Transcript of Records that you requested before leaving from your host institution to the International Office.
4. Form of Host Institution: containing your arrival and departure dates. This should be signed and stamped by the host university and delivered to the International Office.
5. You might be requested to repeat the Online Language Assessment. Results of this assessment will be compared with the assessment you have taken before going abroad.

Describe your experiences

Please talk with the international office coordinator Elmar Veenendaal

international.office.win@tue.nl

Your experiences, suggestions and assessments about your International Experience will help future students to make an informed decision about preferring a destination.

<https://educationguide.tue.nl/broadening/exchange-programs-for-studying-abroad/back-home/>

You can also consider contacting the TU/e Cursor newspaper, and write a small article (about 300 words). The Cursor team might publish your article on-line or in the regular newspaper.

It is important that you describe your experiences in an objective, honest and generalized way so other students can relate to your answers. The answers that you will give will have no consequences for the acceptance of your International Experience in your Master's program. Use this freedom to complete the questions honestly.

6 What do students say?

Tim van Lieshout spent 7 months in Australia: “While doing the preparations I found it really helpful to have a comprehensive list of everything I still needed to arrange where I could add things and check things of when they came up. If you’re thinking about going abroad I cannot recommend this enough. Another important thing is to start preparations early, as things like getting scholarships and your Visa might take a long time.”

Xixi Lu spent 5 months in China: “The best experience of my minor in China is living in a university campus. It is such a different (study) culture and study environment. I have made very good friends, with whom I have studied together and spent a lot of time. After dinner walking through the campus, you will see students who are chatting, sporting and studying together. It creates such a lively, positive, peaceful and energetic study environment, which makes a good competition between the students. The influence makes you want to become a great person. Because we lived together, we learn to work together and help each other.”

Jelte Peter Vink spent 5 months in Singapore: “I selected four modules, which is quite a lot. Nevertheless, I did have some free time. It is very easy to travel. Transportation is not really expensive. In the semester break, I went to Malaysia and at the end of the semester I had a trip to Indonesia and even to Hong Kong.”

Marijn van Knippenberg has been an intern at Fujitsu Laboratories, the research section of Fujitsu in Japan: “I can strongly recommend taking part of your study program outside of the university, either through study at another university or by means of an internship. The experience you gain by putting yourself in a new environment is priceless, and will undoubtedly aid you in your future career. Generally, teachers will also be happy to help you set up an internship, since it helps them strengthen connections, and setting up new connections. I am a strong proponent of taking your studies abroad, so I’d like to impart you with some tips to help you get started.”

More student experience reports can be found on-line: <https://experiences.tue.nl/> as well as in the *Supremum* magazine of GEWIS <https://www.gewis.nl/~supremum/archief/galerij.php>

7 Frequently Asked Questions

I want to go university X but it is not considered as a partner institution.

We strongly believe that the choice of the specialization area is more important than the geographic destination. Hence, you first of all need to decide in what area of Computer Science you would like to specialize, find a local supervisor and then jointly with her decide upon the host institution. Check Section 1.

I failed a course and I'll need to take a resit during the planned stay abroad. Can I get a special permission to take the resit at a different date or follow the same course abroad?

No. We expect our master students to do their utmost to pass the exams on the first attempt. No special dispensations, resit rescheduling or any other kind of exceptional agreements will be made.

What is the best time to go abroad?

The answer depends on the master program you follow, prescribed homologation courses (if applicable) as well as the availability of the local supervisor and a supervisor/contact person at the host institution. Under regular circumstances, the first quartile of the second year might be the most appropriate. For an internship, starting in the summer is most appropriate because then your internship will end before the start of the second quartile.

How do I find a local supervisor?

Try to identify the area of Computer Science you would like to specialize in: think about the courses you have already followed and liked. If you are not sure what are you are interested in or whom to contact please discuss this with dr. Vanschoren or dr. Zannone.

I've contacted a local researcher but she is not interested in supervising me. Can you assign me a different supervisor?

No, but you can try to check this with dr. Vanschoren or dr. Zannone whether an alternative supervisor can be found. Keep in mind that while we would like to encourage you to obtain the international experience, it is neither a right, nor a mandatory element of your master program.

I failed a course at the university abroad. Can I drop that course? Or if not, which facilities are there to help me take a resit for that course?

We expect our students to do their utmost to pass all courses abroad, so this should be a rare occurrence. You cannot drop the course: your international experience has been approved as a package deal, not a set of independent courses. The TU/e is under no obligation to offer you facilities to take resits. But under exceptional circumstances we can offer a *quarantine* setting as sometimes done for our local regular exams.

8 The internationalization team

Prof Mark van den Brand Director Graduate program
He will act as your local supervisor or assign a local researcher to act as such.

Dr. Alexander Serebrenik Vice-director Graduate program
He can help you with the procedures related to internationalization.

Mr. Elmar Veenendaal International Office
He is your guide in the matters of administration, scholarships, insurances.

Dr. Joaquin Vanschoren International Experience Mentor
He can help you to find the local supervisor.

Dr. Nicola Zannone International Experience Mentor
He can help you to find the local supervisor.

Yves Houben, MSc Study advisor internationalization
He should check your internationalization portfolio.

We would also like to encourage you to talk to your fellow students!