# IE BROCHURE AN INTERNATIONAL SEMESTER



TUE EINDHOVEN UNIVERSITY OF TECHNOLOGY

Borders are blurring and the world is globalizing. More and more people are working, traveling and also studying internationally. Internationalization is also of strategic importance for the Department of Industrial Engineering & Innovation Sciences (IE & IS).

This brochure is about the international semester and contains guidelines for Master's students of Operations Management & Logistics (OML) and Innovation Management (IM) who wish to go abroad to study or do a research project. Research projects are specifically arranged by the assigned TU/e mentor. For more information, please see Osiris, 1MIAC15 Master Internship IM/OML Academic and 1MIIN15 Master Internship IM/OML Industrial.

Furthermore, this brochure describes the universities with which course/student exchanges take place.

Have fun during your stay abroad!

## Bea van de Ven

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## 1.THE INTERNATIONAL SEMESTER

## 1.1 STUDYING ABROAD

In Chapter 2 you can find a list of all the universities with which we have an agreement. If you want to study at a university with which we do not have an agreement, this will have consequences for the organization and financing of your international semester; you will have to pay tuition fees both to the university in question and to the TU/e, and you will not be able to claim the scholarships that are linked to contracts.

## 1.2 INTERNATIONAL SEMESTER IM AND OML

The program for the IE MSc Innovation Management and Operation Management and Logistics is shown schematically below. The diagram shows OML's program from 2023-2024.

YEAR 1				
Quarter A1	Quarter A2	Quarter B3	Quarter B4	
Core + Track Core Courses (35 ECTS)				
Specialization Electives (10 ECTS)				
Free Electives (15 ECTS)				

YEAR 2		
1ML05		
International Semester and/or Electives	Graduation Project 1.M96	

- Year 1: Compulsory courses outside the track: 30 ECTS; compulsory courses within the track: 5
  ECTS
- Year 1: Conditional choice (specialization, under approval of mentor): 25 ECTS
- Year 2: Free choice: 30 ECTS
- Year 2: Master Thesis: 30 ECTS (including research proposal)

# For IM and OML:

- Within the free elective (30 ects) a minimum of 15 and a maximum of 30 ects can be spent on the international semester. In the international semester, if desired, a literature study for the purpose of the thesis project can be done.
- It has been agreed with foreign universities that a student obtains a minimum of 20 ECTS.
- The TU/e mentor must give permission for the free electives. The courses from the foreign university must be Master's level.

## 1.3 COURSE EXPLORATION

Before your departure abroad a so-called Exchange Contract is drawn up, which is signed by you, your TU/e-mentor and the International Office (Bea van de Ven is mandated by the Examination Board). This contract mentions the name of the course and the number of credits/ECTS to be obtained.

The exchange contract is binding. Only in special cases may you deviate from the course package you mentioned on your contract before departure. Any changes must therefore be communicated to the International Office and the TU/e mentor as soon as possible.

<u>NOTE</u>: it is **no longer possible to** enter language courses within the elective space of the IE master programs. One exception is possible, concerning the TU/e course SFC640 Academic Writing in English.

After the study exchange, you must be able to provide a certificate ('transcript of records') with your study results. This certificate is provided by the host university, please send it to Bea van de Ven after the end of your International semester. The International semester is processed under 1 code with the number of obtained ECTS with the message FULL.

If a foreign university works with half ECTS credits, the total number of courses will be added together and then rounded up from 0.5 after the decimal point, so the ECTS are **not** rounded up **per course** already!

Universities outside Europe do not work with ECTS; conversion factors have been determined for this and you will be informed about it by the International Office after the allocation.

## 1.4 WHAT TO CONSIDER WHEN CHOOSING A UNIVERSITY/COUNTRY

- 1. Language: do you have time to learn the language? And to take a language test or language course, if necessary?
- 2. Preparation time, especially important if you are going to study in a country that requires a visa.
- 3. Cost of living: these are particularly high in Canada and the United States.
- 4. Country/culture.
- 5. Type of courses (logistics, management, economic)
- 6. Compare our academic calendar with the university you want to attend, check if it matches, check the website of the foreign university and please check the academic calendar there.

## 1.5 EXPERIENCE OF OTHER STUDENTS

## **CAUTION:**

For personal experiences/reports from students who have already gone abroad, please see:

https://tuenl.sharepoint.com/sites/esa\_root/Experiences/SitePages/Home.aspx

# 2.EXCHANGE TREATIES STUDYING ABROAD

The Department has two types of partnerships with foreign universities: multilateral and bilateral. The multilateral exchange program of the European Union is the ERASMUS program. The part related to higher education is called ERASMUS. In such a network, a number of European universities participate and students are exchanged among themselves. Erasmus is within Europe and bilateral is outside Europe.

Partners - ERASMUS	Host country	Number of places per year	Language
Vienna University of Economics and Business https://www.wu.ac.at/en/	Austria	3	English
PRIVATUNIVERSITAT SCHLOSS SEEBURG GMBH https://www.uni-seeburg.at/	Austria	2	English
Ghent University https://www.ugent.be/en	Belgium	2	Dutch/English
Technical University of Denmark https://www.dtu.dk/english/	Denmark	25	English
Aalto University School of Science https://www.aalto.fi/en/school-of-science	Finland	4	English
Lappeenranta University of Technology <a href="https://www.lut.fi/en">https://www.lut.fi/en</a>	Finland	4	English
Université de Technologie de Compiègne https://www.utc.fr/	France	2	English
Institut Polytechnique de Grenoble https://www.grenoble-inp.fr/en	France	6	English
UNIVERSITE LE HAVRE NORMANDIE https://www.univ-lehavre.fr/?lang=en	France	2	English
Université Jean Monnet Saint Etienne https://www.univ-st-etienne.fr/en/index.html	France	2	English
University of Augsburg https://www.uni-augsburg.de/en/	Germany	4	English
Chemnitz University of Technology https://www.tu-chemnitz.de/index.html.en	Germany	2	English
Technische Universität Darmstadt https://www.tu-darmstadt.de/	Germany	6	English/German
University of Dortmund https://www.tu-dortmund.de/	Germany	4	English
Technische Universität Hamburg https://www.tuhh.de/tuhh/en/startpage	Germany	4	English/German
Karlsruhe Institute of Technology https://www.kit.edu/english/	Germany	3	English/German
Technische Universität München https://www.tum.de/en/	Germany	8	English
University of Passau https://www.uni-passau.de/en/	Germany	2	English
University of Duisburg-Essen https://www.uni-due.de/en/	Germany	2	English
Kühne Logistics University https://www.klu.org/	Germany	1	English
SRH HOCHSCHULEN BERLIN GMBH https://www.srh-berlin.de/	Germany	2	English
Politecnico di Bari https://www.poliba.it/	Italy	2	English
Politecnico Di Milano https://www.polimi.it/en	Italy	3	English

Universita degli Ctudi di Dema	I+alv	2	English
Universita degli Studi di Roma	Italy	2	English
Homepage Università degli Studi di Roma Tor Vergata			
(uniroma2.it)			
Technical University of Turin	Italy	3	English
https://www.polito.it/en			
Norges Teknisk-Naturvitenskapelige Universitet	Norway	3	English
https://www.ntnu.edu/			
Western Norway University of Applied Sciences	Norway	2	English
(HVL).			
https://www.hvl.no/en/			
Lodz University of Technology	Poland	2	English
https://p.lodz.pl/en			
Politechnika Warszawska	Poland	2	English
https://www.pw.edu.pl/	l'olaria		Liigiisii
Universidade Do Minho	Portugal	2	English
	Fortugal	2	Liigiisii
https://www.uminho.pt/PT		12	F 1: 1
Universidade do Porto	Portugal	2	English
https://www.up.pt/portal/en/	<b>1</b>	10	- 1. /
Técnico Universidade de Lisboa	Portugal	10	English
https://tecnico.ulisboa.pt/pt/			
University of Ljubljana	Slovenia	2	English
https://www.uni-lj.si/university/			
Ulsan National Institute of Science and Technology	South Korea	2	English
https://www.unist.ac.kr/?go=main			
Universidad Politécnica De Madrid	Spain	1	English/Spanish
https://www.upm.es/internacional			
University of Malaga	Spain	4	Spanish
https://www.uma.es/?set_language=en			
Universitat Politecnica de Valencia	Spain	4	English/Spanish
https://www.upv.es/			2.18.1011, 0 p a 1.1011
Universitat Politecnica de Catalunya	Spain	7	English/Spanish
https://www.upc.edu/en?set_language=en	Spain	'	Lingiishi/ Spaniishi
Chalmers Teksniska Högskola	Sweden	4	English
_	Sweden	4	Liigiisii
https://www.chalmers.se/en/	Considera	4	Fig Disk
Linköpings Universitet	Sweden	4	English
https://liu.se/en		1	
Kungl Tekniska Högskolan	Sweden	8	English
https://www.kth.se/en			
Bilkent University	Turkey	2	English
https://w3.bilkent.edu.tr/bilkent/			J
Bogazici University	Turkey	3	English
https://bogazici.edu.tr/en_US	lancy		-11911311
Istanbul Teknik Universitesi	Turkey	2	English
https://www.itu.edu.tr/en/homepage	Turkey	-	LIIGIISII
	Turkey	2	English
Sabanci University	тигкеу	<u></u>	English
https://www.sabanciuniv.edu/en	 		E 1: 1
Middle East Technical University	Turkey	2	English
https://www.metu.edu.tr/	<del> </del>		
Koç University	Turkey	2	English
https://www.ku.edu.tr/en/			
Galatasaray University	Turkey	2	English
https://gsu.edu.tr/en			
HACETTEPE UNIVERSITESI	Turkey	2	English
https://www.hacettepe.edu.tr/english			
MEF University	Turkey	2	English
https://www.mef.edu.tr/en			
	•	•	•

Partners - OUTSIDE EUROPE	Host country	Number of places per year	Language
Instituto Tecnológico de Buenos Aires (Buenos Aires Institute of Technology - ITBA) https://www.itba.edu.ar/en/	Argentina	10	Spanish
Queensland University of Technology (QUT) https://www.qut.edu.au/	Australia	10	English
RMIT University (Royal Melbourne Institute of Technology) https://www.rmit.edu.au/	Australia	2	English
University of Technology Sydney (UTS) https://www.uts.edu.au/	Australia	1	English
École Polytechnique de Montréal https://www.polymtl.ca/	Canada	2	French/English
Beijing Institute of Technology  https://english.bit.edu.cn/	China	2	English
Zhejiang University https://www.zju.edu.cn/english/	China	2	English
Universidad de Los Andes (University of the Andes). https://uniandes.edu.co/en	Colombia	3	Spanish/English
American University in Cairo https://www.aucegypt.edu/	Egypt	2	English
Institut Teknologi Bandung (ITB) (Bandung Institute of Technology) <a href="https://www.itb.ac.id/?n=1702299412">https://www.itb.ac.id/?n=1702299412</a>	Indonesia	2	English
Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM) https://tec.mx/es	Mexico	2	Spanish/English
Universidad de Monterrey https://www.udem.edu.mx/es	Mexico	2	Spanish/English
National University of Singapore https://nus.edu.sg/	Singapore	2	English
University of Johannesburg <a href="https://www.uj.ac.za/">https://www.uj.ac.za/</a>	South Africa	1	English
University of Pretoria https://www.up.ac.za/	South Africa	2	English
Korea Advanced Institute of Science and Technology https://www.kaist.ac.kr/en/	South Korea	3	English
National Tsing Hua University https://nthu-en.site.nthu.edu.tw/	Taiwan	2	English
National Taiwan University (國立臺灣大學) https://www.ntu.edu.tw/english/	Taiwan	2	English
National Taiwan University of Science and Technology (Taiwan Tech) https://www.ntust.edu.tw/?Lang=en	Taiwan	6	English
Universidad de Montevideo https://um.edu.uy/	Uruguay	2	Spanish/English
University of Central Missouri <a href="https://www.ucmo.edu/">https://www.ucmo.edu/</a>	USA	2	English

## **Special Notes, CAUTION:**

- Turkey is outside Europe, you need a visa for this, they do participate in the Erasmus program so you do get an Erasmus scholarship
- You pay extra tuition fees at Berkeley, Missouri, QUT and Johannesburg
- The universities Vienna University, KAIST, NTU Taiwan and Linkoping University are only for OML
  - o Hacettepe University is only for IM
  - o The rest of all contacts are for OML and IM
- For Linkoping University in Sweden, you can only apply if you have also done the BSc Technical Business Administration here at TU/e;
- For Valencia, you must have a Spanish A2 certificate before departure. Please note that the range of English courses is not large!
- NUS Singapore: NUS' own students take precedence in choosing courses, so it can be very difficult to put together a good course package in the end.
- Barcelona: the number of English courses in Industrial Engineering is very limited! Are you studying OML? Then choose Barcelona CIVIL ENGINEERING in Mobility Online;
- Montreal Canada is French-speaking in the Spring semester (English-speaking in the Fall semester)!
- For KAIST in South Korea and NTU Taiwan, you must have at least a 7.0 average for your Masters, for NTU the higher the better;

## APPLICATION PROCEDURE

#### 3.1 CONDITIONS OF PARTICIPATION

- Students wishing to participate in an international semester must be enrolled in the Master's program as principal enrollment. This means that they must have fully completed the Bachelor's program or the pre-Master's program and be formally admitted to the Master's program.
- There are no other admission requirements.

## 3.2 PROCEDURE

- No later than the end of the first semester in the Master's program, the graduation assignment procedure is completed. During the last months of this semester, the student already has consultations with his/her TU/e-mentor about the interpretation of his/her elective program and the international semester (see graduation procedure).
- Based on the chosen specialization and the student's preference, a (preliminary) choice of university and period is made. The educational components to be followed (courses, research track, etc.) are determined by the TU/e mentor and the international office after consultation with the student.
  - → Students complete their choices on Mobility Online: https://studiegids.tue.nl/opleidingen/buitenland-en-stages/mobility-online
- For August/September departures, the application deadline is March 1; for January/February departures, the application deadline is September 1.
- Allocations will be made by drawing lots. Allocations will be emailed the week after the relevant deadlines. This will be followed by an email on how to start arranging your application abroad, the International Office will request the application forms from the foreign university. The International Office has drawn up a checklist of what you need to arrange before, during and after the International Semester, this checklist can be found in the appendices of this brochure.
- In most cases, the application to the foreign university will be done digitally by students themselves; this will be explained after the allocation. If the university confirms that the student is welcome, the completion of the international semester is final.
- The package of courses (possibly further coordinated with the foreign university) is submitted by the student to the TU/e-mentor. The student and the TU/e-mentor sign the Exchange Contract which is then signed by the International Office; Bea van de Ven is mandated by the Examination Board. You will receive the Exchange Contract as soon as you start applying to a university.
- A language test or course is usually not required except for Spanish-speaking and some Germanspeaking universities.

## 3.3 SELECTION

The process of assignment is done in a number of sub-rounds. Students can be assigned to a university only if they have indicated a preference for that university.

In each sub-round, only the university with the greatest preference for which there are still places to be awarded will be considered for each student. In the first sub-round, this will be the university of first preference. If possible, everyone in the sub-round will be assigned to the university of their choice. Only if demand for particular places exceeds availability will a draw take place. For the remaining university places and students, after this sub-round, another sub-round will be started unless none of the remaining students have indicated preferences. In the latter case, the allocation round is terminated. The Department guarantees students that the total number of places available in each allocation round will be at least equal to the number of places requested. The Department cannot guarantee that the distribution of these places among universities will also conform to the distribution of demand for university places.

## 3.4 LANGUAGE SKILLS

To study abroad it is mandatory to be proficient in one of the following languages and for some universities you need a language certificate:

- French
- German
- English
- Spanish

Please estimate for yourself the extent of your language skills and the extent to which you will be able to attend classes in the language in question.

*Information about language courses at TU/e:* 

https://studiegids.tue.nl/career-skills/taalcursussen-en-academic-writing-skills

Spanish is not taught by the TU/e language center. You can take Spanish through a private institute in Eindhoven, for example through Fuentes:

https://www.fuentes.nl/spaans-in-eindhoven

Importantly, you will receive a certificate upon completion of the course.

## You have to pay for language courses yourself!

Furthermore, you can learn the different languages through self-study. Language courses for ERASMUS students are organized in Torino, Darmstadt, Karlsruhe, Grenoble and Linköping. Whether the courses are actually held in each period depends on the interest and finances of the respective university. It is therefore wise to verify in advance whether there are opportunities for a language course.

## 3.5 STUDY PLANNING EXAMS

## REGULATIONS IN CONNECTION WITH TAKING AN EXAM OUTSIDE OF THE TU/E

At the request of a student, the Examination Committee can permit that an exam taken for a second or further time (a so-called retake) that coincides with an international experience as part of the degree program may be taken abroad. The students submits this request to the Secretary to the Examination Committee three weeks before the start of the final tests or examination period at the latest. More information can be found in the Examination Regulations.

Look carefully at the semester schedule at the university(s) you are interested in.

## **FUNDING**

## 4.1 TUITION

Exchange with universities on the basis of a formal agreement (contract, ERASMUS agreement, etc.) is done with "closed scholarships," i.e. students pay tuition fees to their own home institution and do not have to pay fees to the foreign institution.

<u>However, there are some exceptions to this</u>: at the QUT in Australia you have to pay about 6000 euros tuition fees (there is no draw for this!), at the University of Missouri you have to pay about 1200 euros in fees, at the University of Johannesburg you have to pay about 1500 euros tuition fees and at the University of Berkeley about 10,000 euros (the latter is not a contact of OML and IM but of HTI and IS, you can apply for this if there are spots left at HTI and IS - a total of 8 spots per year).

Always check well in advance what the exact cost will be, as this can change from one academic year to the next!

## 4.2 GRANT

Within the European Union, students receive grants from the ERASMUS program. The amount depends on the cost of living of the country you are going to. The standard amount depends on the country you are going to.

Scholarships are also available for studying outside Europe, these are based on the "Fonds International Experience" or "Holland Scholarship" scheme. These funds provide financial support to students for travel and extra accommodation expenses while studying abroad. You are entitled to one of these two scholarships, not both!

Applying for the above scholarships is done through Mobility Online, later in the process, after the allocation you will come to these steps.

It is also very sometimes possible to obtain additional funding from various grant givers by fundraising on your own. Please check <a href="https://www.nuffic.nl/programmabeheer/beursopener">https://www.nuffic.nl/programmabeheer/beursopener</a>

## 4.3 STUDENT FUNDING

If you study abroad as part of your studies in the Netherlands, you retain the right to a study grant. So those who go abroad as part of an exchange agreement will continue to receive the grant. Those registered as living at home can register with the DUO group as living away from home during their study time abroad. For more information: <a href="https://duo.nl/particulieren/">https://duo.nl/particulieren/</a>

Since you will be studying abroad for at least 1 month, you can choose between an OV student card or a monthly stipend. This amounts to approximately €100 per month. For more information: <a href="https://duo.nl/particulieren/student-hbo-of-universiteit/buitenland/studeren-in-het-buitenland.asp">https://duo.nl/particulieren/student-hbo-of-universiteit/buitenland/studeren-in-het-buitenland.asp</a>

The relevant form for the OV can be signed by the International Office IE&IS; this can be done digitally!

# 5. HOUSING

<u>NOTE:</u> At some universities, the host institution takes care of accommodation on site. This means that you do not have to arrange a room yourself and will receive notification from the host university when a room has been found for you. Unfortunately, at more and more locations there is a housing shortage and you will have to arrange your own housing.

## 6. PREPARATION

#### 6.1 VISA AND RESIDENCE PERMIT

The International Office can inform you whether you need a visa. You can find information on how to apply for a visa on the website of the university concerned or you can contact the embassy. Information can also be found on the NUFFIC site: <a href="https://www.nuffic.nl">www.nuffic.nl</a>

## **6.2 INSURANCE**

If you are going to study abroad, it is <u>not</u> the case that you are automatically insured for medical expenses and Third Party Liability (TPL).

Please check this TU/e information: <u>TU/e collective travel insurance (tue.nl)</u>

You can of course self-insure with your own insurance company; please contact your respective insurance company to arrange this.

In addition to health insurance, it is also important to insure for accidents, liability, contents and repatriation and luggage (travel insurance).

## Outside the European Union

For study outside the EU, it is especially important to find out which insurance is valid and with what coverage.

In general, universities in the United States require very comprehensive coverage. This also applies to ITBA in Argentina, for example, and there are more universities that require mandatory insurance; please check this carefully when you apply abroad!

## APPENDIX

#### 1.CHECKLIST INTERNATIONAL SEMESTER

## Before departure

- Approval Mentor via Exchange contract: you must obtain a minimum of 15 ECTS in your free elective space and may enter a maximum of 30 ECTS in the free elective space; however, with the foreign partners it has been established that exchange students must enter a minimum of 20 ECTS in courses and try to obtain these. Note: you are not allowed to take any ECTS for a language in your Master.
- Language test or course (not required);
- Register on time in Mobility Online and later with the foreign partner, pay attention to deadlines!
- Housing Arrangements;
- Bank statement (only needed if you will be studying <u>outside of Europe</u>!), this is *not α* bank guarantee!
- Arrange visa and possibly residence permit yourself through embassy; <u>check</u>
   passport: must still be valid for six months or a year after returning home (depending
   on location)! Also keep your additional travel time in mind!
- <u>Via Mobility Online</u>: Travel Insurance.
- Confirmation of admission host university required for visa (put this in your hand luggage when traveling due to possible checks);
- Do you have a study grant living away from home? If not, you can still apply for it for your time abroad;
- Turn in your OV-card (public transport card) (you get about €100 per month in return), find the form on the DUO website and have it signed by International Office IE&IS; this has to be done 3 months in advance! (remember to sign out at the ticket machine!)
- Arrange travel after acceptance by foreign university!

More information on insurance and group travel insurance through TUE:

https://studiegids.tue.nl/opleidingen/buitenland-en-stages/voorbereiding/verzekeringen

Please note that third-party insurance, health insurance and household insurance must be arranged by yourself.

- Vaccinations (check on GGD site);
- Cancel mobile phone subscription if necessary;
- Purchase credit card if needed;
- Possibly open a bank account on the spot;
- Scan important documents (e.g. passport, driver's license) and put them in your mail;
- International driving license (through ANWB, about 15 euros), not required within Europe;
- General tips Study/Internship Abroad: www.wilweg.nl;
- General tips scholarships: www.beursopener.nl.
- For German grants: http://www.studereninduitsland.nl/

# On the spot abroad:

 Consult mentor and International Office IE&IS about any changes in your course package; adjust Learning Agreement (Via Mobility Online) and Exchange contract via Bea van de Ven if necessary;

## After returning:

- Mail original/or digital Transcript of Records to Bea van de Ven (may be sent by Host University to International Office IE&IS, please check with Host University); this will be processed under International Semester code with notification 'met';
- Submit reflection report (via Mobility Online).
- COMPLETE ALL STEPS IN MOBILITY ONLINE!