

# Going abroad in Europe

## Wege ins Ausland für Studium, Praktikum & Forschung



Dr. Eliza Gemel Academic Advisors for Internationalization

TUM School of Natural Sciences

Study Programs in Biochemistry, Chemistry & Physics

Garching, 21 November 2025

# Agenda



## Welcome & Introduction



## Program Overview

- Erasmus+: Study, internship and staff mobility (EU)
- SEMP: Swiss exchange as Erasmus alternative
- IROP: International research and exchange formats



## Planning Your Stay Abroad – Step by Step

- Goals & partner university selection
- Learning Agreement
- Credit transfer
- Application & deadlines
- Funding (scholarships)
- Checklist & timeline



## Q&A, Informal Get-together

# Erasmus+ Program

## Funding for Study-Related Study Stays Abroad

For European countries (limited funding outside Europe)



### **SMS (Study Mobility for Students)**

Study at a partner university in Chemistry or Physics



### **SMP (Study Mobility for Placements)**

Internship incl. thesis and graduate internships in companies, research institutions or universities



**Important: Planned stay (SMS + SMP) of maximum 12 months per study cycle.**

# Erasmus+ Program

## Funding for Study-Related Study Stays in Switzerland (SEMP)

Applying for the scholarship at the Swiss university



### **Study at a partner university in Chemistry or Physics**

Access to SEMP funding for study exchanges



### **Internship at a partner university**

Non-partners may also accept applications



SEMP funding is limited, "first comes, first served" may apply



# IROP at Imperial College London

## Flagship Partnership

Summer Research  
Program



Summer Research Project Work

~8 weeks (June/August) under the supervision of researchers at ICL



Support Network

Support from IROP Team, social and cultural program to experience student life at Imperial



Currently no funding available

**IROP Information Session:**  
**December 2, 2025, from 6:00**  
**to 6:45 pm.**  
Register to attend!



Requisites & Application

<https://academics.nat.tum.de/en/global/events>

# Overview

Program	Destination	Purpose	Deadline	Info
Erasmus SMS	Partner universities	Study and research	January 13 for upcoming academic year	<a href="#">NAT-Chemistry</a> <a href="#">NAT-Physics</a>
Erasmus SMP	Institutions within EU	Research or internship	Rolling deadline, at least four weeks before going abroad	<a href="#">TUM Global</a>
Erasmus SMP	Institutions outside EU	Research or internship	Rolling deadline, at least two months before going abroad	<a href="#">TUM Global</a>
SEMP	Partner universities	Study and/or research	January 13 for upcoming academic year	<a href="#">NAT-Chemistry</a> <a href="#">NAT-Physics</a>
IROP	Imperial College London	Research	January 15 for upcoming summer	<a href="#">NAT</a>

# Other options (I)

Program	Destination	Purpose	Deadline	Info
EuroTeQ courses	EuroTeQ network (at home)	Virtual study	Twice per year, see info link for details	<a href="#">TUM Global</a>
ATHENS	ATHENS network	One-week study	Twice per year, see info link for details	<a href="#">TUM Global</a>
PROMOS stipend	Outside Erasmus+	Self-organized stay abroad	Twice per year, see info link for details	<a href="#">TUM Global</a>
Double Degree	KTH	Study and research (MSc Physics)	January 13 for upcoming academic year	<a href="#">NAT-Physics</a>
DTU-TUM 1:1	DTU	Study or research (MSc Physics, only AEP)	January 13 for upcoming academic year	<a href="#">NAT-Physics</a>

## Other options (II)

Program	Destination	Purpose	Deadline	Info
Research Program for International Talents	École Polytechnique	Research	See info link for details	<a href="#">L'X</a>
Project Mobility Students	ETH Zürich	Research	See info link for details	<a href="#">ETHZ</a>
AScI International Summer Research Program	Aalto University	Research	See info link for details	<a href="#">AScI</a>
CERN Summer Student Opportunities	CERN	Internship	See info link for details	<a href="#">CERN</a>



# Benefits of exchange programs



## No Tuition Fees

at the partner university



## Simplified Enrollment

procedure



## Academic Advice

and social activities



## Financial Support

Erasmus+ and SEMP

# Would a full year abroad be an option?



It may never be so easy again  
to spend a longer time abroad!

# Requirements for participation (I)



## Good study progress at TUM

First study year at TUM successfully completed



## ECTS Requirements (study progress monitoring/Studienfortschrittskontrolle)

Applicants must have completed an average of 24 ECTS per semester (80% of the regular workload), with a minimum requirement of 22.5 ECTS per semester (75%).



## Language Proficiency

Sufficient knowledge of the language of instruction of modules/courses abroad (study plan)

## Erasmus+ Grant Requirement



Successful completion of  $\geq 10$  ECTS in subject courses at the partner university (not language courses). You must also comply with stricter rules of the host university.

# Requirements for participation (II)



## Stay enrolled at TUM

During the whole stay abroad

*Exception: Erasmus+ graduate internships*



## Duration of stays

Stays may last from 60 to 360 days

# Recommended Exchange Periods



## Bachelor Students



**3. Semester**

 Application



**4. Semester**

 Preparation



**5./6. Semester**

 Exchange



## Master Students




**1./2. Semester**

 Application



**2. Semester**

 Preparation



**3./4. Semester**

 Exchange



### Tip:

You can apply at the end of your Bachelor for a stay at the beginning of your Master!

# Additional requirements

## Goal Setting & Preparation



### **Personal goal setting and independence**

Which are your personal, academic and language goals?



### **Extensive own research and organization**

Resulting in a well-founded study plan or research project – abroad and embedment at TUM!



### **Pay attention to differences in the semester dates!**



### **Application documents are evaluated**

In terms of form and content

# Reflect on Your Readiness

You are...

- ✓ ... looking forward to challenging situations?
- ✓ ... prepared to expand your horizon?
- ✓ ... interested in cultural exchange and the improvement of your language skills?
- ✓ ... open for completely new, different things and opinions?
- ✓ ... interested in other approaches in your studies and maybe very different working methods?

# Reflect on Your Readiness

You are...

- ✓ ... strong enough to accept it, when the courses that you chose do not take place or do not meet your expectations?
- ✓ ... prepared to make new friends all over the world?
- ✓ And all that as well, when it does not get reflected into credits and/or good grades???

**Then you are ready for a stay abroad!**



Minds are like parachutes.  
They only function when  
they are open.

– *Sir James Dewar* –

# Our partner universities – Physics (I)

Academics  
TUM School of Natural Sciences  
Technische Universität München

- Homepage
- Latest News
- Bachelor +
- Master +
- Lehramt +
- Study abroad –
- Outgoings Chemie
- Outgoings Physics –
- Erasmus+ SMS and SEMP –
- Infoevent 2023
- Partnerunis –
- DTU
- Aalto**
- Helsinki
- Grenoble INP
- UGA
- ENS Lyon
- Montpellier
- Sorbonne
- Toulouse UPS

Homepage > Study abroad > Outgoings Physics > Erasmus+ SMS and SEMP > Partnerunis > Aalto

## Aalto University

Finland



### Locations

- [Otaniemi Campus](#) ↗, Espoo

### Exchange places

### TUM School of Natural Sciences

Technische Universität München

Boltzmannstr. 10  
85748 Garching

### Fachreferentin für Internationalisierung

Dr. Maria Eckholt  
Tel.: +49 (89) 289 - 14461  
Büro: [5101.EG.053](#) ↗  
[global\\_ph@nat.tum.de](mailto:global_ph@nat.tum.de)  
[Sprechstunde](#) ↗

### Physics at Aalto ↗

### Summer Research ↗

### Experience Reports ↗

### Auslands-BaföG ↗

# Our partner universities – Physics (II)

UGA  
ENS Lyon  
Montpellier  
Sorbonne  
Toulouse UPS  
L'X  
TCD  
L'Aquila  
Campania  
Cagliari  
Bari  
Milano  
Milano-Bicocca  
La Sapienza  
TU/e  
RUG  
TU Delft  
Utrecht  
Bergen  
NTNU

## Locations

- [Otaniemi Campus](#) , Espoo

## Exchange places

- Erasmus+ Studies: 2 students, 10 months each

Places denote the maximum number of students that can be sent to the host university. Duration of the stay may be shorter or, if places are combined, longer than stated. Please also consider the overall duration allowed by the Erasmus+ program.



## Study possibilities

- Erasmus+ Studies:
  - Undergraduate / Bachelor
  - Postgraduate / Master

## Languages of instruction and requirements


- English

## Information about studies

- [Academic calendar](#) 
  - [Academic offer](#) 
- You should choose courses mainly from physics.

**Only for nominated students**



[Experience Reports](#) 

[Auslands-BaföG](#) 

<https://academics.nat.tum.de/en/global/out-ph/europe/partners>

# Our partner universities – Chemistry

- Homepage
- Latest News
- Before Studying
- Bachelor +
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- Lehramt +
- Exchange Programs -
- Infoevents
- Outgoings Chemie -
- European Partners**
- Outgoings Physics +
- Incomings Chemistry +
- Incomings Physics +
- Promotion +
- Ressources +
- Contact +

[Homepage](#) > [Exchange Programs](#) > [Outgoings Chemie](#) > European Partners

## European partner universities in chemistry

Here you will find a list of our existing partnerships within the framework of Erasmus+ and the Swiss-European Mobility Program (SEMP). Further details on academic offer, language of instruction etc. can be found under the respective websites.

Experience reports from other TUM students are available in the [Publisher of TUM Global & Alumni Office](#).

Erasmus Code of TUM: **D MUNCHEN02**

Country	University	Places	Duration (months)
Belgium	<a href="#">Katholieke Universiteit Leuven (KU)</a>	2	10
	<a href="#">Universiteit Gent</a>	8	6
Denmark	<a href="#">Danmarks Tekniske Universitet (DTU)</a>	20	5
Finland	<a href="#">Aalto-yliopisto</a>	1	10
	<a href="#">Helsingin yliopisto</a>	3	5
	<a href="#">Turun Yliopisto</a>	1	10
France	<a href="#">Ecole Supérieure de Chimie Physique Electronique de Lyon (CPE)</a>	1	10
	<a href="#">Ecole Nationale Supérieure de Chimie de Montpellier</a>	2	10
	<a href="#">Université Paul Sabatier - Toulouse III</a>	2	12
	<a href="#">Ecole Nationale Supérieure de Chimie de</a>	3	10
	<a href="#">Doric</a>		


**TUM School of Natural Sciences**

Technische Universität München

Boltzmannstr. 10  
85748 Garching

<https://academics.nat.tum.de/en/global/out-ch/europe-partners>

# Experience reports (I)



## Global Experiences

Cooperating worldwide, TUM offers you many opportunities for international experiences, ranging from short programs to several semesters abroad. Make use of these programs to advance your academic profile, improve your language proficiency, boost your career prospects, and have a lot of fun!

Country

Denmark

✕

Institution

▼

Program

Erasmus Studies / Studium (SMS)

✕

Level

▼

Subject Area

NAT-Chemistry

✕

Search

or NAT-Physics

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<https://tum.adv-pub.moveon4.de/global-experiences/>

# Experience reports (II)

 Denmark  
1 Relations

 DENMARK

## Danmarks Tekniske Universitet (DTU)

### Institutions

City	Lyngby
Website	<a href="http://www.dtu.dk">http://www.dtu.dk</a>
Erasmus Code	DK LYNGBY01
Application Information	-

### Relations

Program	Erasmus Studies / Studium (SMS)
Level	Undergraduate / Bachelor   Postgraduate / Master
Subject Area	NAT-Chemistry
ISCED Code	0531 - Chemistry

[More Details](#)

<https://tum.adv-pub.moveon4.de/global-experiences/>

# Experience reports (III)

**Danmarks Tekniske Universitet (DTU), Denmark**

**Travel Reports**

Travel Reports - 1	
Travel Report	<a href="#">Erfahrungsbericht</a>
Institution	Danmarks Tekniske Universitet (DTU)
TUM Subject Area	NAT-Chemistry
Starting Date	2019-08-25

Travel Reports - 2	
Travel Report	<a href="#">Experience report</a>
Institution	Danmarks Tekniske Universitet (DTU)
TUM Subject Area	ED-Engineering Science
Starting Date	2021-02-17

Travel Reports - 3	
Travel Report	<a href="#">Experience report</a>
Institution	Danmarks Tekniske Universitet (DTU)

Relations  
Program Erasmus Studies / Studium (SMS)

Search result for  
subject area  
NAT-Chemistry

<https://tum.adv-pub.moveon4.de/global-experiences/>

# Experience reports (IV)

**Danmarks Tekniske Universitet (DTU), Denmark**

**Travel Reports**

Travel Reports - 1	
Travel Report	<a href="#">Experience report</a>
Institution	Danmarks Tekniske Universitet (DTU)
TUM Subject Area	NAT-Physics
Starting Date	2021-08-23

**Travel Reports - 2**

Travel Report	<a href="#">Experience report</a>
Institution	Danmarks Tekniske Universitet (DTU)
TUM Subject Area	NAT-Physics
Starting Date	2021-08-23

**Travel Reports - 3**

Travel Report	<a href="#">Experience report</a>
Institution	Danmarks Tekniske Universitet (DTU)

**Search result for subject area NAT-Physics**

**Relations**

Program	Erasmus Studies / Studium (SMS)
Level	Undergraduate / Bachelor   Postgraduate / Master   Doctorate / PhD

<https://tum.adv-pub.moveon4.de/global-experiences/>



# Credit transfer. Recognition of credits



The choice of subjects and the potential recognition of credits earned abroad should be clarified with the examination board of the respective degree program before the start of the semester abroad and must be documented for the Erasmus+ program (OLA).



After your semester abroad, credits are not transferred automatically. You must submit a recognition application. Please upload the required documents after your return:

- Transcript of records from the host university (signed, stamped, or with a verification link)
- Module descriptions, if the *Preliminary Approval of the Learning Agreement for the Exchange* has not already been confirmed in advance. These should include information on learning outcomes, teaching methods, content, workload, and prerequisites.
- Information about the grading system.

# Credit transfer. Recognition of credits



## Bavarian Formula

Grade conversion follows § 16 APSO strictly, the so-called "Bavarian Formula" (a linear interpolation). The most precise grade information from the host university's certificate is always used.

$$\text{German grade} = 1 + 3 \times (N_{\text{best}} - N_{\text{foreign}}) / (N_{\text{best}} - N_{\text{passed}})$$

Where:  $N_{\text{best}}$  = best possible grade in the foreign system  
 $N_{\text{passed}}$  = lowest passing grade  
 $N_{\text{foreign}}$  = received foreign grade

# Credit transfer. Recognition of credits

## Example: French Grading System

Nbest = 20 (highest grade in France)

Npassed = 10 (minimum passing grade)

If student receives **16,2/20**:

German grade =  $1 + 3 \times (20 - 16,2) / (20 - 10) = 2,1$



### Maximum Grade ≠ Highest Achievable Grade

In some countries (e.g. France and UK) or universities, the theoretical maximum grade on the grading scale is usually not awarded, which leads to a very disadvantageous grade conversion.

# Credit transfer. Recognition of credits

## Example: French Grading System

Nbest = 20 (highest grade in France)    Nbest = 17 (*highest achievable grade*)

Npassed = 10 (minimum passing grade)

If student receives **16,2/20**:

German grade =  $1 + 3 \times (20 - 16,2) / (20 - 10) = \mathbf{2,1}$     (1,3)

The decision whether the actual grading practices are taken into account ultimately rests with the examination board of the respective degree program.

# Credit transfer. Recognition of credits



## **ECTS Calculation for Non-European Universities**

The determination of ECTS for achievements at non-European universities is based on the workload information in the module descriptions.



## **Final Approval**

Final review and approval of the recognition certificate lies with the Examination Board of your study program.

# Learning Agreement & Recognition

Recognition possibilities must be documented in the Learning Agreement for the Erasmus+ program.

Two Types of Credit Recognition:

## Bachelor Program

### 1:1 Recognition

Similar courses are recognized 1:1

Tied to curriculum with mandatory modules

Requires careful own research

## Master Program

### Free Recognition

Achievements recognized as elective modules

Gives much freedom in study plan design

Easier to find recognition opportunities





Recognition in Master programs is easier to find, in Bachelor programs it is also possible but requires more careful research.


# Learning Agreement before mobility

- 💡 **Recommendation:**  
Prepare a Learning Agreement for the courses you plan to take  
This might already be necessary for the application at your host university
- ⚠️ **For ERASMUS+ students MANDATORY**  
Online Learning Agreement (OLA) before the start of semester abroad  
*2-step procedure at TUM NAT School:*
  - 1 Complete the Pre-Approval Form (Excel) and submit it to the NAT International Office for approval by the examination board of your study program.
  - 2 After you receive the approved form from the NAT International Office, transfer information into the Online Learning Agreement
- 📌 **Submission:**  
Pre-Approval to [global.ph@nat.tum.de](mailto:global.ph@nat.tum.de) (Physics) or [global.ch@nat.tum.de](mailto:global.ch@nat.tum.de) (Chemistry)  
🕒 **Deadline: 4 weeks before semester start at your host university**
- 📌 **Important to note:**  
At least 10 ECTS study-related courses (You must also comply with stricter rules of the host university)

# Leave of absence

 Semester does not count towards study time, but you cannot take initial examinations nor register/submit a thesis

 No BAföG but Auslands-BAföG, if you complete modules matching your degree program – consult details with your BAföG office. If you receive a scholarship, you should similarly check with the provider

 More information:  
[www.tum.de/en/studies/during-your-studies/organizing-your-studies/leave-of-absence](http://www.tum.de/en/studies/during-your-studies/organizing-your-studies/leave-of-absence)



# Application period Erasmus+ & SEMP

For the Academic Year 2026/27  
IROP SoSe 2026



**December 1, 2025 – January 13,  
2026**



**12 noon**



Mark your calendar and submit your application on time!

# Application documents Erasmus+ & SEMP (I)



## 1. Online Application Form

Complete the digital application form in the moveon system



## 2. Letter of Motivation

Write in English, with explanations for each of your desired host universities (up to 4 wishes can be entered)

 Max. 2 pages, up to four universities



## 3. Preliminary Study Plan

Prepare a study plan for each chosen host university

Remember: Complete and accurate documentation increases your chances of acceptance!

# Application documents Erasmus+ & SEMP (II)



## Academic Records

Previous semesters and/or studies (Bachelor and Master)



## Language Certificates

For relevant teaching languages, possibly complemented by a language learning plan.



## Curriculum Vitae (CV)

Including hobbies, languages, internships, social engagement etc.



Submit all documents together with your application to increase your chances of acceptance!

# Application process Erasmus+ & SEMP



## Upload Complete Application Documents

Submit all required documents in the application portal of TUM Global & Alumni Office (moveon)



### Important!

Submit only complete applications, further documents cannot be added later on!



Incomplete applications will not be considered in the selection process.

# Selection criteria Erasmus+ & SEMP



## **Personal motivation and academic plan**

As a whole (abroad, at TUM and beyond)



## **Academic performance**

Overall academic achievements and grades



## **Language proficiency**

In the teaching language, knowledge of the local language is a plus



## **Extracurricular activities and social engagement**

Involvement in student initiatives, volunteer work, etc.

All criteria are considered completely to select the best candidates.

# Application timeline Erasmus+ & SEMP (I)



## Application Deadline

For exchanges in the academic year 2025/26:

**January 13, 2026 at 12 noon**

For both stays in winter and/or summer semester



## Interviews

May take place in some cases

Selected candidates may be invited for an interview



## Exchange Offer

By the end of February

**One-week time to accept or reject the offer**



## Nomination

In the following weeks

Official nomination at your host university

# Application timeline Erasmus+ & SEMP (II)



From Mid March

## Application to Host Institutions

Students apply independently to the host institutions starting from mid March

Note: Application procedures and deadlines depend on the host institution!



March/April

## Pre-Departure Meeting

Online pre-departure meeting at the School in March/April



Starting in April

## Erasmus+ Grant Information

Information about the Erasmus+ grant comes from TUM Global & Alumni Office

Requires moodle course enrollment

# ERASMUS+ SMS: TIMELINE FOR SCHOLARSHIP

ERASMUS+ STUDIES STEPS	MAIN DEADLINES
Application period for an Erasmus+ exchange spot	<b>1.12. 2025 – 13.01. 2026, 12 a.m.</b>
Allocation of exchange spots by TUM Schools/Departments	January to March, depending on Departments
Moodle course login & information about the next steps	Beginning/middle of April
Submission of <b>Online Learning Agreement</b> (course selection)	<u><b>As soon as possible after allocation of exchange spot.</b></u> Please contact your school/department for more info.
Pre-Departure Meeting	Mid-June/End June
Scholarship application	Mid-June/ beginning of July (depending on DAAD guidelines)
Signature of the <b>Grant Agreement</b>	End of June / middle July (depending on DAAD guidelines)
Upload OLA & Signature of the Grant Agreement	<b>At latest one day before the exchange starts!</b>



Please note that **these are only the main steps** to get the grant



# Language skills Erasmus+ & SEMP

- 1 Language of instruction: good to very good skills required
- 2 Relevant is your level at the registration / beginning of your stay abroad, not at the application
  - Plan ahead to improve your language skills between application and departure
- 3 If your winter term language course is still ongoing, submit the 'Confirmation of Attendance.'
  - Please upload the certificate of achievement once you have passed the course
- 4 Local language: bonus for your application

# Language Café

Practice languages, socialize and enjoy free drinks and cake!



- **Every Wednesday, 3.00 – 5.30 pm**
- Informatics / Mathematics building (slides)
- Registration in TUMi app: <https://tumi.esn.world/events>

# Individual advice

Study programs in biochemistry, chemistry and physics

## **Dr. Eliza Gemel**

Chemistry building

Room CH63105

Consultation hour:

<https://tinyurl.com/global-nat-ch>

For short questions:

[global.ch@nat.tum.de](mailto:global.ch@nat.tum.de)

**Out of office!**

**22.12.2025 - 06.01.2025**

