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Aalto University
School of Chemical
Engineering



Master in Advanced Materials for Innovation and Sustainability

Awarded the EIT Label in 2016

31.8.2022 *Jaana Vapaavuori, Jari Koskinen & Anna Mäkilä*

Agenda

Who are we? Getting to know each other

Personnel of the programme

Degree and major structure

Teaching in Autumn 2022

Study guidance and coaching

Practical study matters

Meeting the academic advisors

Who are we?

A short presentation of everyone present

Please tell briefly something about yourself to others, for example:

- Your name
- The country you are from
- What do you expect from the forthcoming academic year 2022-2023?



Personnel of the major

- Jaana Vapaavuori - Programme Director
- Kevin Conley- Academic Coordinator
- Kalevi Ekman
- Mady Elbahri
- Sami Franssila
- Lauri Järvilehto
- Antti Karttunen
- Jari Koskinen
- Elina Kähkönen
- Kyösti Ruuttunen
- Rodrigo Serna
- Girish Tewari
- Kirsi Yliniemi



Learning services



Photo:Unto Rautio

Student advisor:
msc-advisors-chem@aalto.fi

Study affairs secretary: Kati Sumu
studies-chem@aalto.fi

Planning officer: Anna Mäkilä
anna.makila@aalto.fi

Additional information:
<https://into.aalto.fi/display/enamis/Contact>

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Degree structure and planning your studies

Advanced Materials for Innovation and Sustainability (AMIS)



A double degree programme developed jointly by six universities:

- *Grenoble INP (coordinator)*
- *Aalto University*
- *TU Darmstadt*
- *University of Liège*
- *University of Bordeaux*
- *University of Riga*

Double degree

- The first year in one partner university, the second year in another partner university
- Obey regulations and rules of both universities

→ **M.Sc. degree from both universities**

Please remember: AMIS students have **the same rights and responsibilities** as all other degree students at Aalto!



Degree structure

120 (-125) ECTS credits:

60 cr major dependent studies

- *Fixed curriculum*
- *Compulsory studies*
- *Optional courses (restricted list of courses)*

30 cr minor dependent studies

- *Compulsory studies*

30 cr Thesis

- *Approx. 5 months active work*

→ **Master of Science (Tech.)**



Year 1 at Aalto

60 ECTS credits:

- **35 cr compulsory studies**
- **25 cr optional courses**
 - *From list given*

Inno-Project I

- 6 cr
- Subject: Batteries
- Liege University in charge

Internship

- 5 cr (min 10 weeks)
- in a research company or a lab
- must correspond to a research project
- each student is responsible for finding a position → be active and fast!!!!

AMIS Summer School

- 3 cr
- July 2023
- Subject: same as Inno-Project
- TU Darmstadt in charge

First year studies

Compulsory courses (35 ECTS)

CHEM-E0140	Laboratory Safety Course
LC-1310	Academic Communication for MSc Students

CHEM-E0101	Career Planning Exercises
TU-C2090	Starting Up

AAN-C2007	Product sustainability
MEC-E3001	Product Development Project

CHEM-E0160	Inno-Project I
CHEM-E0145	Inno-Mission Internship

CHEM-E0155	AMIS Summer School
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Optional courses (25 ECTS)

CHEM-E5160	Functional soft materials
CHEM-E5150	Surface and films
CHEM-E5140	Materials characterization, laboratory course
CHEM-E5200	Personal Research Assignment in Functional Materials
CHEM-E5220	Group Research Assignment in Functional Materials
CHEM-C3410	Nanomaterials
CHEM-E4215	Functional Inorganic Materials
MEC-E1070	Selection of Engineering Materials
CHEM-E6215	Circular Economy Design Forum
CHEM-E4155	Solid State Chemistry
CHEM-E5125	Thin Film Technology
CHEM-E4105	Nanochemistry and Nanoengineering

Mobility path for the second year

- Presentations from five universities in January
- Application in January/February
- Final decision in April/May

- → more information in late Autumn



Year 2 at Aalto: Functional materials for global challenges

60 ECTS credits:

- **20 cr compulsory studies**
- **10 cr optional courses**
 - *From list given*
- **30 cr Master's thesis**
 - *Approx. 5 months active work*

Winter School

- 14.-16.11.2022
(tbc)

Second year studies

Compulsory courses (20 ECTS)

CHEM-E0140	Laboratory Safety Course
CHEM-E0101	Career Planning Exercises
TU-E4100	Startup experience
CHEM-E5220	Group Research Assignment in Functional Materials
AAN-C2007	Product Sustainability

Optional courses (10 ECTS)

CHEM-E5150	Surfaces and films
CHEM-E5140	Materials characterization, laboratory course
CHEM-E5160	Functional soft materials
CHEM-E5200	Personal Research Assignment in Functional Materials
CHEM-E4215	Functional Inorganic Materials
ELEC-E8724	Biomaterial Science

Master's thesis (30 ECTS)

Teaching in Autumn 2022

- Majority of courses on campus
- Some courses might be in hybrid mode

→ Please, check MyCourses pages!!!

→ If you have some question, please, contact teacher in charge

Master's thesis

Goal: master's thesis completed by the end of the 2nd study year

Important: Follow rules of both universities!

- *a supervisor and co-supervisor*
- *master's thesis approved in both universities*
- Aalto rules: <https://into.aalto.fi/display/ennmpt/Master%27s+Thesis+2020-2022>
 - *complete all compulsory studies*
 - *make sure your study plan is up-to-date*
- Aalto instructions: <https://into.aalto.fi/display/ennmpt/Completing+your+master%27s+thesis>

How to find a thesis position/topic:

- *Be active!*
- *2nd year students; start looking for a master's thesis position **yet!***
- *Be open to new ideas!*
- *Don't wait too long for the “perfect” master's thesis offer*



Grade and credit transfer between universities

- Credit transfer will be done by the university administration
- Courses will be transferred from your first year university to Aalto
- Grades will be translated to Aalto grading scale according to the scaling agreed between all universities
- All courses (Aalto + other university) count towards final GPA

Common Grading Scale	A	B	C	D	E	Fx	F
Université Bordeaux 1	> 15	> 13,5	> 12	> 11	> 10	Fail (more work required)	Failed
Aalto University	5	4	3	2	1		fail
Technische Universität Darmstadt	1-1.3	1.7-2	2.3-2.7	3-3.3	3.7-4	Fail (more work required)	>4.3
Institut polytechnique de Grenoble (Grenoble INP)	> 15	> 13,5	> 12	> 11	> 10	Fail (more work required)	Failed
Université de Liège	≥18.5	17-18.5	15.5-17	13.6-	12-13.6	Fail (more work required)	<12

Language studies

- Mandatory in your degree if not part of your bachelor's degree (according to degree regulations)
- **3 ECTS** credits on certain level in one foreign language
- Only courses with letters O (for oral) and W (for written) fulfil the requirements
- English recommended, but other languages can be taken as well
- Finnish/Swedish: basic courses allowed



CHEM-E0140 Laboratory Safety Course

There are two courses,
you need to pass only one of them:

**CHEM-A1010 Turvallinen työskentely
laboratoriossa**
(Finnish version for bachelor students)

OR

CHEM-E0140 Laboratory Safety Course
(English version, mainly for master level
and exchange students)

**Access to CHEM buildings
is automatically linked to
Lab Safety Courses**

What to do?

1. Add “*CHEM-E0140 Laboratory Safety Course*” to your personal study plan (HOPS) in SISU (sisu.aalto.fi)
2. Register to the course “*CHEM-E0140 Laboratory Safety Course*” in SISU (sisu.aalto.fi)
3. Go to MyCourses page of “*CHEM-E0140 Laboratory Safety Course*” (mycourses.aalto.fi)
4. Follow the link to Virtual Lab Space
5. Take the Digital Exam in the MyCourses
 - You will be notified immediately whether you passed the exam (to pass: 65 % of the points).
 - You can take the exam as many times as you like.
 - It is recommended that you have Virtual Lab open at the same time as you take the exam.

Try not to just guess but find answers
from Virtual Lab
→ This is for your own safety

Make the course **this week** – you need a Lab Pass to enter the labs

- **After** passing Lab Safety Course, you will be printed a Lab Pass



- You have to have Lab Pass visible on your lab coat when entering labs

Check the opening times from:

<https://into.aalto.fi/display/encbme/Contact>

Pick up your Lab Pass from Study Advisors' pop-up desk (CHEM main lobby, Kemistintie 1) **during its opening hours**

Study period when you take the Lab Safety	Passes ready in Study Advisors pop-up desk
Orientation Week September 2022 (no later than Sun 4 th Sep)	WED 7 th September onwards
PERIOD I (no later than Sun 11 th Sep)	WED 13 th September onwards
PERIOD II (no later than 30 th Oct)	WED 2 nd November onwards
Orientation Week January 2023 (no later than Sun 8 th Jan)	WED 11 th January onwards
PERIOD III (no later than 15 th Jan)	WED 18 th January onwards
PERIOD IV (no later than 5 th March)	WED 8 th March onwards
PERIOD V (no later than 30 th April)	THU 4 th May onwards

Laboratory coats and glasses

- The School of Chemical Engineering offers laboratory coats and safety glasses for all students. These are picked up before laboratory work and returned when leaving the laboratory.
- These coats can be used for all bachelor and master level laboratory courses.
- You can take the coat from the rack before entering the laboratory space and return it back afterwards.
- Coats are available in the following locations:
 - B2 hall and C1 corridor (All laboratory courses)
 - D209c (All laboratory courses)
 - C3 corridor (Biolabs)
 - E3 corridor (Chemical Engineering Laboratory courses)
 - E4 corridor (Polymer Technology & Industrial Chemistry Laboratory courses)
- In case of any problems, please contact technical services.

Planning your studies → HOPS/PSP

All students are required to prepare a **personal study plan (PSP)** as a part of their master's studies and always keep it up-to-date.

- The study plan is a **binding agreement** on both parties: the student and the university.
- Students can, at any time of their studies, **update** their study plan → approval if needed → *send an email to the planning officer*
- The study plan should at all times correspond to the student's current plan for his/her studies.
- Changes to the study plan should always be done before participating in courses → *not possible to enroll to a course, if it is not in your study plan*

Planning your studies → HOPS/PSP

The study plan includes:

1. Major courses, based on curriculum

Compulsory courses and specialisation courses

2. Elective courses

Possible to include a minor in the elective studies (minor not compulsory)

3. Timing of all chosen courses and the master's thesis

Study plans are created in **SISU**

Some parts require approval

Approved by the planning officer, deviations from the curriculum need to be separately approved by the professor in charge of the major

More instructions: <https://into.aalto.fi/display/encbme/Planning+your+studies>

- If a part of your study plan requires an approval
- If you have some questions to the content
→ send an email to anna.makila@aalto.fi

If you have some technical questions
→ send an email to msc-advisors-chem@aalto.fi

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Student guidance and coaching in Aalto CHEM

Academic advising

The academic advising at Aalto CHEM:

- *Two individual meetings with your academic advisor*
(academic advisor organizes)
- *Support!*



Academic advising

Most students felt that they benefit from the meetings (86%)

Most students have met their academic advisor two times, some 3-5 times

Benefits for a student

- *Help, advice, tips, support ...*
- *have a mentor, someone confidential supporting you*
- *get feedback and ideas, other opinion*
- *good possibility to talk, to share feelings*
- *building an academic network*

“feeling more confident about my studies and future career”

“Discussion about the Master’s thesis, overall feelings and concerns, stress management, discussion/advising about summer job and career plans.”

“Has helped me clear up my mind immensely”

“Guidance for the future.”

“feeling of being heard”

All in all, I feel like academic advising is needed and welcome!

Academic advising group: 1st year

Sami Franssila

Azin Alesafar
Adrián Gutiérrez Cruz
Anni-Elina Seipäjärvi
Marie Sourrouille
Haoxuan You

Academic advising group: 2nd year

Jari Koskinen

Agbesi Amenyo
Victoria Coude du Foresto
Marie Courtant
Ayoub Dassy
Valentin Feine
Laura Fieber
Céleste Gauthier

Eliot Ge
Sophie Gorbana
Mohammed Amine Hammouali
Pierre Hendrickx
Mohammed Lahjouji
Manon Loisel-Ramel
Etienne Pierra
Mathilde Toustou

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Practical study
matters

Student feedback



Be active in providing your feedback regarding courses and also the programme as a whole



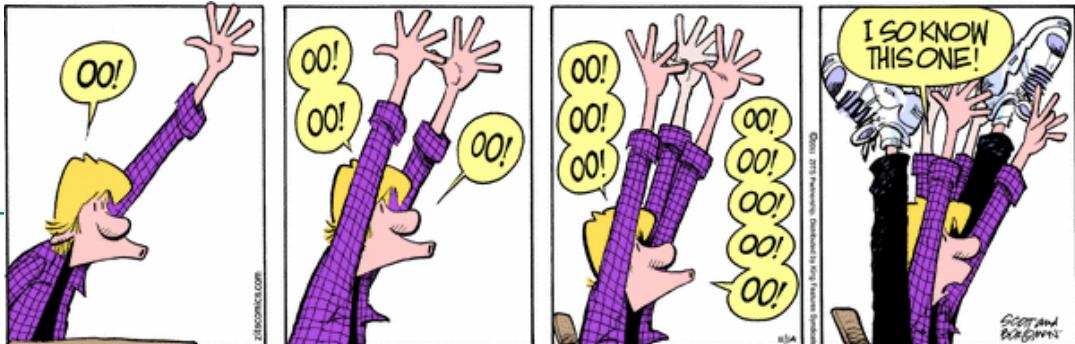
Course feedback is collected after every course and is valuable for course development



Feedback is always welcomed!

Be active and successful student!

- Prepare to study full-time
- Prepare to hear English spoken mostly with Finnish accent
- Obey the universities' regulations and statutes
- Follow the curriculum → INTO, aalto.fi, SISU, MyCourses
- Read your **aalto.fi e-mails**
- Take responsibility of your studies and be independent
- Can't find information or unsure -> please, ask!
- Participate actively in your courses and challenge your teacher!



In case any problems occur...

Notify your planning officer and your academic advisor immediately of any changes in circumstances which may affect your ability to follow the programme (i. e. you must suddenly leave home for personal reasons etc.)

And if necessary, see a doctor immediately! Not only for your own health and wellbeing, but also because notifications in retrospective (“I was so sick last semester that I couldn’t attend the courses” don’t help).

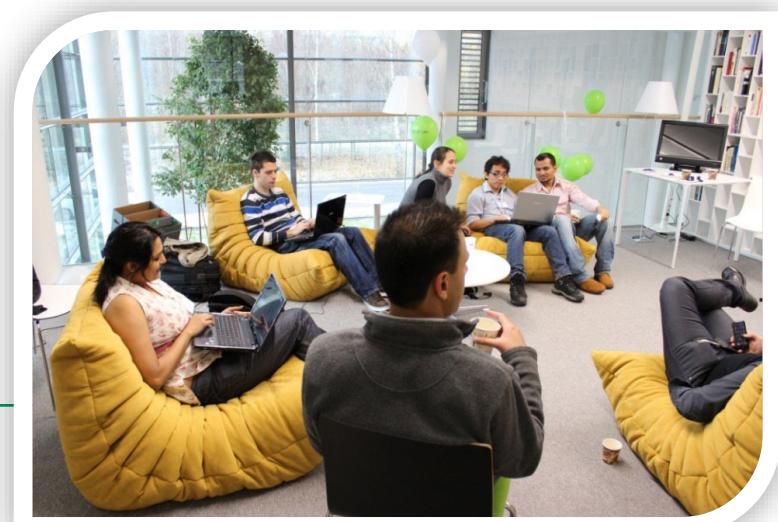
Be a part of Aalto community

Follow announcements and participate in events!

- Contacts and network
- Developing your career interests, new ideas
- Meeting Aalto professors and researchers
- Finding your thesis position and supervisor, etc.

Examples:

- Aalto Ventures Programme (AVP)
- Aalto Sustainability Hub
- Multidisciplinary platforms



Innovation and Entrepreneurial Ecosystem in Aalto

- Get involved in the Aalto Innovation Ecosystem
<https://aaltopreneur.fi/>
- Aalto Ventures Program (I&E education)
<https://avp.aalto.fi/>
- Aalto Innovation Services: (Aalto's tech transfer office)
<https://innovation.aalto.fi/>
- A Grid: (Aalto's start-up incubator)
<https://agrid.fi/>

What's next?

- IT services at Aalto & course registrations **Thu 1 Sept. 9:30-11:00** *Lecture hall KE2, Kemistintie 1*
Recommended to everyone!
- Aalto Welcome Fair **Thu 1 Sept. 10-16** *Väre/Korkeakoulunaukio*
 - 13:30 Lecture: "Better student life at Aalto" *Lecture hall KE 1, Kemistintie 1*
- Innovation & Entrepreneurship Ecosystem Campus Tour for EIT students **Fri 2 Sept. 10:00-15:00** *Maarintie 8, EIT Digital CLC, red sofa lounge*
Come and meet another EIT students
- Pop-up Q&A Session with Learning Services **Fri 2 Sept. 10:00-11:30** *Lecture hall KE3, Kemistintie 1*
Come and meet us, if you have any questions
- TeekkariLIFE lecture **Fri 2 Sept. 12:00-14:00** *Lecture hall Aalto, Otakaari 1*

Meeting the academic advisors



- Getting to know each other
- Study plan
- Free discussion

Welcome to begin your Master Studies at Aalto University !

