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Aalto University  
School of Chemical  
Engineering

# Welcome to study at Aalto University!

*Master's Programme in Chemical, Biochemical and Materials Engineering*

*Sustainable Metals Processing*



Photo: Anja Hänninen

*7.9.2021 Michael Gasik and Anja Hänninen*

# Agenda

1. **Who are we? Getting to know each other**
2. **Personnel of the major**
3. **Degree and major structure**
4. **Special arrangements in Autumn 2021**
5. **Student guidance and coaching**
6. **Practical study matters**
7. **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
- Will you be present on campus or remote?
- What do you expect from the forthcoming academic year 2021-2022?



# Personnel of the major

## Professors:

- Michael Gasik (*in charge of major*)  
[michael.gasik@aalto.fi](mailto:michael.gasik@aalto.fi)
- Daniel Lindberg  
[daniel.k.lindberg@aalto.fi](mailto:daniel.k.lindberg@aalto.fi)
- Rodrigo Serna  
[rodrigo.serna@aalto.fi](mailto:rodrigo.serna@aalto.fi)
- Ari Jokilaakso  
[ari.jokilaakso@aalto.fi](mailto:ari.jokilaakso@aalto.fi)
- Mari Lundström  
[mari.lundstrom@aalto.fi](mailto:mari.lundstrom@aalto.fi)
- Ville Alopaeus  
[ville.alopaeus@aalto.fi](mailto:ville.alopaeus@aalto.fi)

## University Lecturers:

### *Academic advisors*

- Marko Kekkonen  
[marko.kekkonen@aalto.fi](mailto:marko.kekkonen@aalto.fi)
- Jari Aromaa  
[jari.aromaa@aalto.fi](mailto:jari.aromaa@aalto.fi)
- Anna Klemettinen  
[anna.klemettinen@aalto.fi](mailto:anna.klemettinen@aalto.fi)

# Learning services



Photo: Unto Rautio

**Student advisor:** Melissa Hendren  
[msc-advisors-chem@aalto.fi](mailto:msc-advisors-chem@aalto.fi)

**Study secretary:** Kati Sumu  
[studies-chem@aalto.fi](mailto:studies-chem@aalto.fi)

**Planning officer:** Anja Hänninen  
[anja.hanninen@aalto.fi](mailto:anja.hanninen@aalto.fi)

**Additional information:**

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

# Degree structure and planning your studies



# Degree structure

## 120 ECTS credits:

- **Academic Learning Community (3-5 cr)**
  - *common to all students in Master's Programme in Chemical, Biochemical and Materials Engineering regardless of the major*
- **60 cr major studies**
  - *Compulsory studies*
  - *Specialization studies*
- **30 cr master's thesis** (approx. 5 months active work)
- **25 - 27 cr elective studies**
  - *Can include a minor*

→ Master of Science (Tech.)

Academic Learning Community (3 - 5)

Major studies (60 cr)

Master's thesis (30 cr)

Electives (25 - 27 cr)



# Major structure

1st year	Fall	Academic Learning Community (3-5 cr)	Fundamentals of Chemical Thermodynamics (5 cr)	Metal Recycling Technologies (5 cr)	Fundamentals of Minerals Engineering and Recycling (5 cr)
			Fundamentals of Pyrometallurgy (5 cr)	Fundamentals of Hydrometallurgy (5 cr)	Process Modeling (5 cr)
	Spring		Specialisation studies (15-20 cr)		Elective studies (5-10 cr)
2nd year	Fall		Technical Innovation Project D (10 cr)	Specialisation studies (0-5 cr)	Elective studies (15-20 cr)
	Spring		Thesis (30 cr)		

<https://into.aalto.fi/display/encbme/Sustainable+Metals+Processing+2020-2022>



# CHEM-E0105 Academic Learning Community

*Let's make this the best course ever!*

*Please note: MATLAB module (1 ECTS) starts on Monday, Sep 13<sup>th</sup>, 8-10 am*

*What?*

- Course for *all* master's students in CHEM
- 3-5 cr, depending on completed tasks

*When?*

- Periods I-V
- Starting on September 20<sup>th</sup>, 8:30-10 am

*Why?*

- Learning *general skills and knowledge*
- Helping you *succeed in your studies*

*For more information: [MyCourses](#)*



**Senior university lecturer**  
*Kyösti Ruuttunen* **cannot wait**  
**for the course to start!**

Photo: Kitty Norros

# Specialisation studies (20 cr)

Thermodynamics of Materials	CHEM-E6105	Thermodynamics of Solutions D	III–IV
	CHEM-E6115	Thermodynamics of Modeling and Simulation D	IV–V
Sustainability of Metals	CHEM-E6215	Circular Economy Design Forum D	IV–V
	CHEM-E6235	Circular Economy for Materials Processing	2020-2021: III–IV, 2021-2022: IV-V
Ore Dressing and Recycling	CHEM-E6145	Unit Operations in Mineral Processing and Recycling	III–IV
	CHEM-E7170*	Design Project in Chemical Engineering, part A	IV–V
	CHEM-E7180*	Design Project in Chemical Engineering, part B	I–II
Pyrometallurgy	CHEM-E6165	Unit Processes in Pyrometallurgy	III–IV
	CHEM-E7170*	Design Project in Chemical Engineering, part A	IV–V
	CHEM-E7180*	Design Project in Chemical Engineering, part B	I–II
Hydrometallurgy	CHEM-E6185	Applied Electrochemistry and Corrosion	III–IV
	CHEM-E7170*	Design Project in Chemical Engineering, part A	IV–V
	CHEM-E7180*	Design Project in Chemical Engineering, part B	I–II
Chemical Engineering	CHEM-E7150	Reaction Engineering	II
	CHEM-E7120	Laboratory Project in Chemical Engineering	III–V

*\*students completing CHEM-E7170 Design Project in Chemical Engineering, part A also need to complete CHEM-E7180 Design project in Chemical Engineering, part B*

# Elective studies / Minor

- Elective studies (25-27 cr)
- Possible to include a minor (15-25 cr) into the elective studies
- Minor not compulsory → degree without minor



# 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)*

## **PLEASE NOTE!**

- **Access to CHEM buildings is automatically linked to Lab Safety Courses**
  - So even if you would take only theoretical courses in Aalto CHEM, you still need to pass the Lab Safety to be able to access the building
- **Also, you must have a Lab Pass before entering the labs of CHEM** (more info can be found from course pages)

# What to do ?

1. Add “**CHEM-E0140 Laboratory Safety Course**” to your personal study plan (HOPS) in SISU ([sisu.aalto.fi](https://sisu.aalto.fi)) - *CHEM.E Elective studies*.
2. Register to the course “**CHEM-E0140 Laboratory Safety Course**” in SISU ([sisu.aalto.fi](https://sisu.aalto.fi))
3. Go to MyCourses → “**CHEM-E0140 Laboratory Safety Course**” ([mycourses.aalto.fi](https://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...but the questions keep changing.
  - It is recommended that you have Virtual Lab open at the same time as you take the exam:

**Do not just guess answers! This is for your own and others safety!**

# Pass the course **this week**

## – you need a Lab Pass to enter the labs

- **After** passing Lab Safety Course, your Lab Pass will be printed:



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

*Note! The printing is done only after passing the course!*

- Pick up your Lab Pass from the study advisors' pop-up desk (*CHEM main lobby, Kemistintie 1 A*)

Study period when you take the Lab Safety	Passes ready in Study Advisors pop-up desk
Orientation Week September 2021 (< Sun 12 <sup>th</sup> Sep)	WED 15 <sup>th</sup> September onwards
PERIOD I (< Sun 19 <sup>th</sup> Sep)	WED 22 <sup>nd</sup> September onwards
PERIOD II (<7 <sup>th</sup> Nov)	WED 10 <sup>th</sup> November onwards
Orientation Week January 2022 (< Sun 9 <sup>th</sup> Jan)	WED 12 <sup>th</sup> January onwards
PERIOD III (< 16 <sup>th</sup> Jan)	WED 19 <sup>th</sup> January onwards
PERIOD IV (< 6 <sup>th</sup> March)	WED 9 <sup>th</sup> March onwards
PERIOD V (< 24 <sup>th</sup> April)	WED 27 <sup>th</sup> April onwards

# Language studies

- **Mandatory in your degree** if not part of your bachelor's degree (according to degree regulations)
- **3 ECTS** credits
- 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 basic courses allowed
- Students with a Finnish bachelor's degree (including AMK students): usually no obligatory language studies required







# Planning your studies

All students are required to prepare a **personal study plan (HOPS)** 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. 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.

# Planning your studies

- 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, 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*
- Deadline: **10 September 2021**
- More instructions: <https://into.aalto.fi/display/encbme/Planning+your+studies>



# Why should you earn your degree within two academic years?

Requires an average of 60 credits per year

## WHY?

- It shows your potential to future employers that you are able to commit to your studies and that you can acquire a wide spectrum of new knowledge while keeping to an agreed schedule
- CHEM rewards students who have completed their degree within the target time → 500€
- It's a fast track to summer jobs at the departments



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

# Student guidance and coaching in Aalto CHEM

# Academic advising

The academic advising at Aalto CHEM is organised in connection with the course CHEM-E0105 Academic Learning Community.

- *Two compulsory individual meetings with your academic advisor (academic advisor organizes)*
- *More meetings can be arranged if needed*



# Academic advising

Most students felt that they benefit from the meetings (85,7%)

Many students wish for more than 2 meetings

## Benefits for a student

- *help & advice & tips*
- *having a mentor, someone confidential supporting you*
- *getting feedback and ideas, other opinions*
- *a good possibility to talk, to share feelings*
- *building an academic network*

*We could discuss anything related to studies and courses*

*I was able to reflect on my studies and see what went well and what I still need to improve upon.*

*I think it is just the fact that my advisor listened to everything and she didn't make it difficult to talk to her.*

*Very good concept! Good to have a person assigned to you so you know who to ask when you need help with something.*

*The advisor answered to every question and we had altogether quite a nice meeting.*

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



# Academic advising groups

Marko Kekkonen's group:

Fabiola Lasar

Marius Kansanaho

Anna Klemettinen's group:

Esther Esekheigbe

Jussi Anttila

Jari Aromaa's group:

Patrik Granvik

Niklas Vähä-Savo

# Practical study matters

# Feedback

- Be active in providing your feedback regarding courses and also the major as a whole.
  - Course feedback is collected after every course and is valuable for course development.
  - Feedback sessions with students and teachers will be organized twice per year. These sessions are a part of CHEM-E0105 Academic Learning Community course.
  - Answer the AllWell? questionnaire in the spring.
-

# Student feedback



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



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



Feedback sessions with students and teachers will be organized

Twice in an academic year.

These sessions are a part of CHEM-E0105 Academic Learning Community course.

# Be an active student

- Take the responsibility of your studies
- Use the curriculum and other resources → Into, MyCourses, SISU
- Read your **aalto.fi e-mails**



- Can't find information or unsure -> please, ask!
- Participate actively in your courses and challenge your teacher!

# What's next?

- Orientation to Services and Wellbeing, “Service fair”: **Thu September 9, 13:00-15:00** [LINK](#) (*for students from outside Aalto, optional for Aalto bachelors*)
- IT services and enrolment to courses: Thu **9.9. at 10.00-12:00** (*for students from outside Aalto, recommended for Aalto bachelors*)
- Student union (AYY) introduction **Fri 10.9. 9:30-10:00** (*Optional for all*)  
[LINK](#)
- Q&A Session with Learning Services Fri 10:00-12:00 (*Optional for all*)  
[LINK](#)
- **TeekkariLife lecture** ~30 min (*Optional for all, you can watch at any time*)

# Welcome to begin your master's studies at Aalto University!

