Aalto University
School of Chemical
Engineering

Welcome to study at Aalto University!

Master's Programme in Chemical, Biochemical and Materials Engineering

Sustainable Metals Processing

1.9.2020 Michael Gasik and Monica Sandberg

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 2020
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 2020-2021?

Personnel of the major

Professors:

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

Other teaching staff:

- Marko Kekkonen *(academic advisor)*
  marko.kekkonen@aalto.fi
- Jari Aromaa *(academic advisor)*
  jari.aromaa@aalto.fi
- Anna Danczak
  anna.danczak@aalto.fi

Learning services

Photo: Unto Rautio

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

Study secretary: Jenny Thors
studies-chem@aalto.fi

Planning officer: Monica Sandberg
monica.sandberg@aalto.fi

Additional information:
https://into.aalto.fi/display/encbme/Contact

Degree structure and planning your studies

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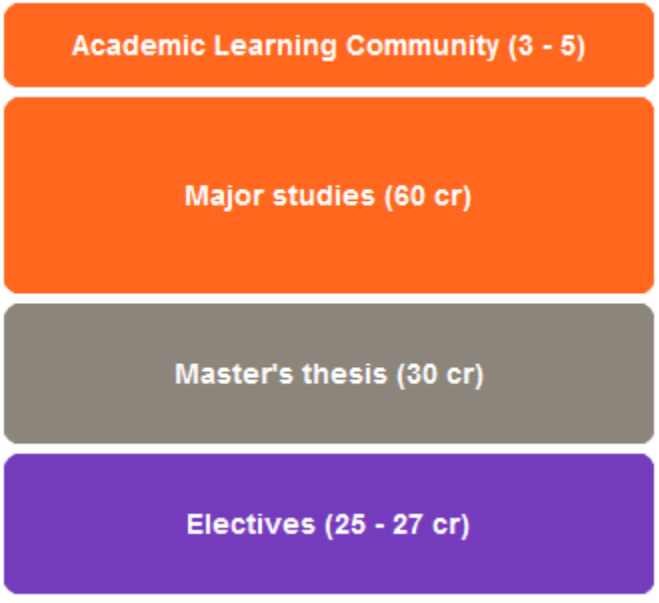
Degree structure

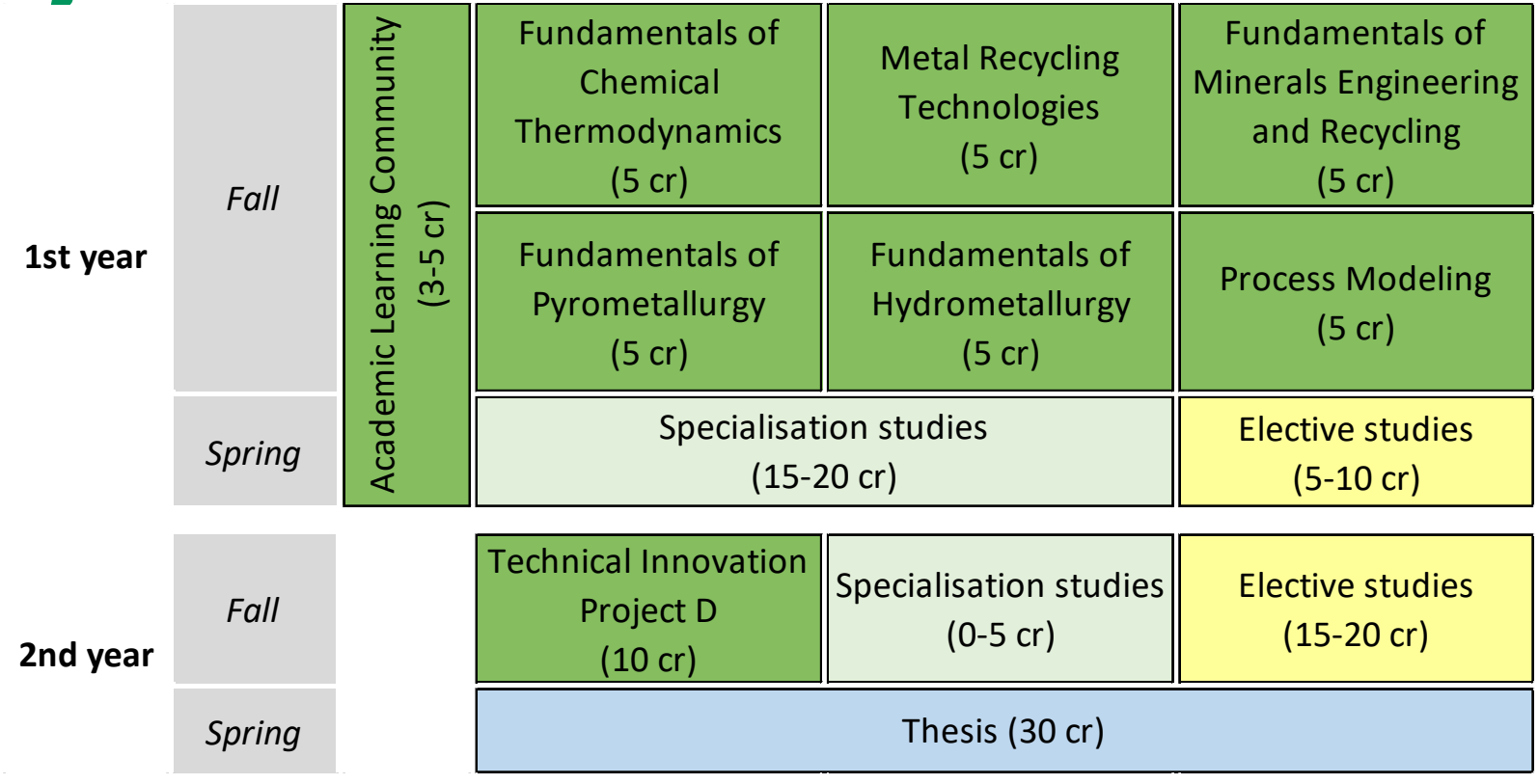


120 ECTS credits:

- **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.)

Major structure



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

CHEM-E0105 Academic Learning Community

Let's make this the best course ever!

What?

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

When?

- Periods I-V
- Starting on September 14th, 8:30-10 am
- *Please note: MATLAB module (1 ECTS) starts on Monday, Sep 7th, 8-10 am*

Why?

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

For more information, check out MyCourses

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

Photo: Kitty Norros

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School of Chemical Engineering

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*

Special arrangements in Autumn 2020

Compulsory courses

Code	Name	Credits	Period	Arrangements
CHEM-E0105	Academic Learning Community	3-5	I–V	Remote teaching
CHEM-E6100	Fundamentals of Chemical Thermodynamics	5	II	Remote teaching
CHEM-E6130	Metal Recycling Technologies	5	II	Remote teaching
CHEM-E6140	Fundamentals of Minerals Engineering and Recycling	5	I	Remote teaching
CHEM-E6160	Fundamentals of Pyrometallurgy	5	II	Remote teaching
CHEM-E6180	Fundamentals of Hydrometallurgy	5	I	Lectures remotely, labs on campus
CHEM-E7130	Process Modeling	5	I	Remote teaching

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

CHEM-E0140 Laboratory Safety Course

- Instructions to Digital Lab Safety Course, kirsi.yliniemi@aalto.fi
- 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
- You must have a Lab Pass before entering the labs of CHEM (more info can be found from course pages)

CHEM-E0140 Laboratory Safety Course

- 100 % digital course
- You can do it already now!

It allows you to familiarise with the material and take the exam whenever you want:

1. Familiarize yourself with Virtual Lab Space *(link in MyCourses)*
2. Take the digital exam *(in MyCourses)*

This is for you own safety – and your friends' safety – so please, study the material carefully!

What to do?

1. **Sign into the course "*CHEM-E0140 Laboratory Safety Course*" in WebOODI (oodi.aalto.fi)**
   - *NOTE! You must have signed in with your Aalto account before you can sign into courses*

2. **Go to the MyCourses page of "*CHEM-E0140 Laboratory Safety Course*" (mycourses.aalto.fi)**

3. **Follow the link to Virtual Lab Space**

4. **Take the Digital Exam in the MyCourses**
   - *You will be notified immediately whether you passed the exam (to pass: 50 % 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:*
   - ***Try not to just guess → This is for your own safety***

Pass 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 your 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)

Study Period when student makes the Lab Safety course	Lab Pass Ready in Study Advisors in CHEM Lobby (after 12 noon)
September Orientation Week	WEDNESDAY 9th September
Period I (1st week)	WEDNESDAY 16th September
Period II (1st week)	WEDNESDAY 4th November
January Orientation Week	WEDNESDAY 13th January
Period III (1st week)	WEDNESDAY 20th January
Period IV (1st week)	WEDNESDAY 10th March
Period V (1st week)	WEDNESDAY 28th April

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

Master's Thesis

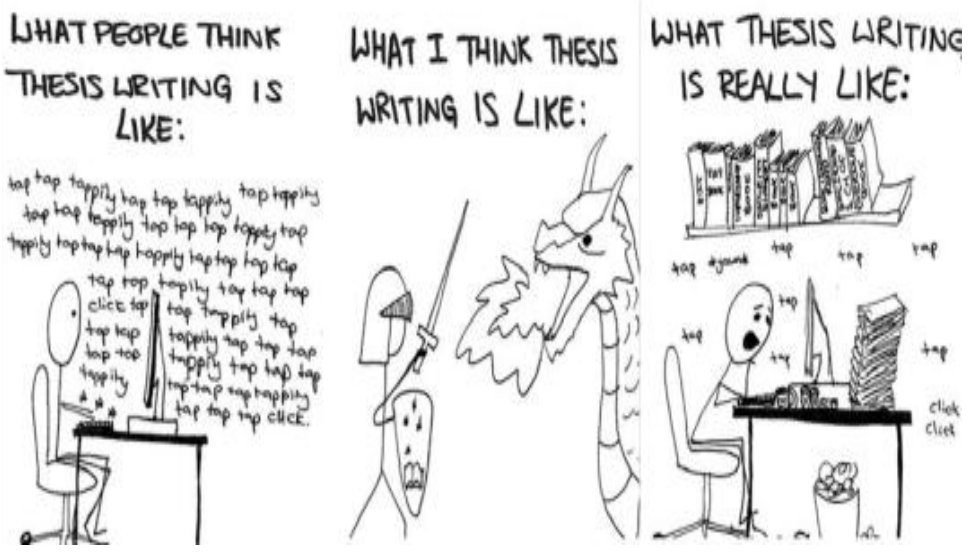
Goal: master's thesis completed by the end of the 2nd study year

Before you start your master's thesis:

- complete all compulsory studies
- complete at least 40-45 credits of major
- make sure your study plan is up-to-date

How to find a thesis position/topic:

- Start looking for a master's thesis position early, during the Spring of the 1st study year
- Be active and open to new ideas!
- Don't wait too long for the "perfect" master's thesis offer



Personal supplementary studies

- Some students are required to complete supplementary studies
- Recommended to be completed as soon as possible (during the first semester of the first year)
- Not included in your degree (120 ECTS credits + supplementary studies)

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: **7 September 2020**
- 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 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

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

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

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

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

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

Academic advising groups

Marko Kekkonen

- *Juho Hentman*
- *Olatunde Isahia Ogunrombi*
- *Markus Tähtivuo*
- *Sofia Ulmala*

Jari Aromaa

- *Otto Joutsiniemi*
- *Otto Kankaanpää*
- *Lauri Rapeli*
- *Keren Ruzanov*
- *Satu Maarit Siitonen*

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.

Be an active student

- Take the responsibility of your studies
- Use the curriculum and other resources → Into, MyCourses, WebOodi, SISU
- Read your **aalto.fi e-mails**
  - *Change the password every 6 months*

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

What's next?

Tuesday:

- Practical information for international students: **Tue 1.9. at 11.00-12.00**

Thursday:

- Aalto University Services for Students: **Thu 3.9. 9:00-11:00**
  (for students from outside Aalto, optional for Aalto bachelors)

Friday:

- IT services and enrolment to courses: Fri **4.9. at 10.00-11.30**
  (for students from outside Aalto, recommended for Aalto bachelors)

- TeekkariLife lecture ~30 min
  (*Optional for all, you can watch at any time*)
- Possibility to order lab coats and lab goggles, DL 7.9: Order form

Meeting the academic advisors

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

➢ *Break-out rooms in Zoom*

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