School of Chemical Engineering

In the School of Chemical Engineering most courses taught in English are on the Master's level, but available for both Master and Bachelor level students provided that the prerequisites are met. Exchange students can choose courses offered in English at the School of Chemical Engineering freely as long as they have the required prerequisites, knowledge and skills to attend the course. However, when choosing courses from many different majors it may cause some overlaps in course timetables.

In some cases, there may be restrictions in participation for certain courses (e.g. course availability restricted only for students of certain major or priority given to the degree students of the school), but applicant will be informed of these once their learning agreement/study plan has been checked.

Below you can find a list of courses offered in English at Aalto CHEM. Use the list as a starting point for making your Learning Agreement/study plan, but please note that it is subject to change. Thus, you need to be prepared to make changes upon arrival due to overlaps in schedule or course cancellations.

From this page you will find the following information:

- Course list for the academic year 2022-2023
- Course list for the academic year 2021-2022
- Course lists from previous academic years
- Instructions for Learning Agreement/Study Plan
- Laboratory Safety and Orientation course
- Final Projects in the School of Chemical Engineering

Course list for the academic year 2022-2023

Please note that the Curriculum is to be renewed for 2022-23. The new course list will be published in early June 2022. However, at the time of applying to Aalto University School of Chemical Engineering new exchange students should prepare the preliminary learning agreements/study plans based on the course list for 2021-22. Changes in the course offering are possible and exchange students should be prepared to make changes in the course choices in the beginning of the autumn semester in September 2022. We cannot give any guarantees on individual courses at the time of applying.

Note! The course list AY2022/23 has been published on 1 June 2022, updated version on 7 June 2022.

- List of course AY2022/23 - names and links to the course descriptions in Sisu - Please use this list from June 2022 onwards
- See also: List of removed courses from 2021-22 and possible new substitutive courses

Course list for the academic year 2021-2022

- List of courses AY2021/22 - names and links to course descriptions in Sisu - Please use this list when preparing your Study Plan / Learning Agreement.
- Course links: If the link does not work or leads to the old version of the course: you can find the courses from SISU-portal. Note to choose the correct version of the course, i.e. 2021-2022 to see updated course information.

Course lists from previous academic years

Course list for the academic year 2020-2021

- List of courses - names and links to course descriptions - note! updated 30/11/2020
  - Please note that information on course organization (online/contact teaching) regarding courses offered in the spring term 2021 has been updated in the course list on 30 November 2020. However, further changes are possible if the pandemic situation so requires.

Course list for the academic year 2019-2020

- List of courses offered for the academic year 2019-2020, includes course descriptions - updated 8/2019
- List of courses offered for the academic year 2019-2020, includes names only - updated 7/2019
Instructions for Learning Agreement/Study Plan

- At least 2/3 of the courses selected must be from the School of Chemical Engineering in order to be admitted to this school.
- 1/3 of the courses can be selected from the other three Aalto University engineering schools (School of Science, School of Engineering and the School of Chemical Engineering) or from the Language Centre or from the interdisciplinary course offering (e.g. UWS-courses).
- Courses from the Aalto University School of Business and the School of Arts, Design and Architecture cannot be selected, apart from the Aalto cross-school courses, UWS and interdisciplinary courses.
- A full study load is approximately 1600 hours per academic year which equals to 60 ECTS (= 60 cr). We expect incoming exchange students to study full time while at Aalto and to pass the courses with good grades. Full workload at Aalto is 30 ECTS credits for one semester.

How to read the course list:

- The extent of the courses is given in ECTS (European Credit Transfer System) credits. One credit corresponds to 27 hours of work, including lectures and other forms of instruction, exercises, seminars and independent work at home and in the library. The scope of a course can be 1-15 credits depending on the content of the course.
- Periods I and II refer to teaching periods of the autumn term and periods III and IV and V refer to the teaching periods of the spring term.
- Abbreviations used in the course codes:
  - CHEM-C and CHEM-A = a Bachelor's level course
  - CHEM-E = a Master's level course
  - CHEM-L = a Doctoral level course

Laboratory Safety and Orientation course

All new students of the School of Chemical Engineering are required to complete a short Laboratory safety entity (0 ECTS admitted, compulsory for everyone studying at AaltoCHEM). In addition, it is possible to complete a course CHEM-E0150 Orientation for exchange students in the School of Chemical Engineering (1 ECTS), Laboratory Safety being part of the course in this case.

Laboratory safety

The laboratory safety entity will be completed fully online in the beginning of the exchange semester. The contents concern basic safety matters that might already be familiar to you. All the students in the School of Chemical Engineering are required to pass Laboratory Safety in order to be eligible to attend the courses and to have access to the school facilities. Laboratory Safety will be recorded in Aalto University transcript of records without ECTS credits.

Orientation course

Starting from autumn term 2017 we offer a course for exchange students titled “CHEM-E0150 Orientation for exchange students in the School of Chemical Engineering” (1 ECTS). It includes participation in orientation sessions, above mentioned Laboratory Safety and independent work (e.g. writing a short essay reflecting your arrival at Aalto University). This course is voluntary, so you are not required to complete this course. However, you are still required to complete the Laboratory Safety and attend the obligatory parts of the orientation.

Final Projects in the School of Chemical Engineering

Whether a student from a partner university can complete a final project during exchange studies at the Aalto University School of Chemical Engineering (AaltoCHEM) depends on the resources of the department/research group the student is interested in. Placement is not guaranteed even if the exchange period required thesis work. Priority in thesis placements is given to the degree students of our school. AaltoCHEM has the right to reject an application if the placement for thesis work cannot be arranged.

Please note also that for exchange students the final project is registered in the transcript of records as a personal assignment (Final project), not as a Master’s thesis. Code used is CHEM-EF (Final project). More instructions from exchange coordinators in the beginning of the exchange period.

It is important to note that you should reserve enough time for the final project. Preferably final project workers should stay the whole academic year at Aalto, one semester may be too short time (autumn term 4 months, spring term 5 months). Final project must be completed within the validity of the study right. (Note! For autumn term exchange students: study right is valid until 31 Dec and it is not possible to continue any longer).

Completing a final project requires a very high level of English language skills, especially in academic writing. Please make sure that if you are applying as an exchange student and you are interested in completing Final Project work here you must have sufficient English language skills.

The preferable level of English language skills is B2-C1 on the CEFR scale (or IELTS 6.5, TOEFL ibt 92). Students applying for a final project should submit a certificate stating they have sufficient English language skills. This can be a IELTS of TOEFL certificate, or a certificate by an e.g. English teacher at the home university reviewing the student’s skills on the CEFR scale.

Topic of the Final Project
There are no ready-made lists of topics that students could choose from. Therefore, the first thing is to determine your field of interest by browsing the Schools' departments/research groups webpages. You can find the information about the School of Chemical Engineering at https://www.aalto.fi/en/school-of-chemical-engineering. (> Departments and infrastructures > choose the department you are interested in > choose the research group you are interested in > you will find the name of the responsible professor)

It is required to have preliminary contact with the professor already before applying to Aalto University, otherwise it is rather unlikely that Final Project placement can be found for you. You can find contact information of the professors and research groups from the webpages mentioned above. In the exchange application you should clearly mention the professor you have been in contact with. Too general description e.g. “any topic is ok for me” will lead to rejection of the application. If professor agrees to act as your supervisor and offer you a topic of Final Project, you should also negotiate about the scope of the Final Project with the supervisor. Scope is possible between 10-30 ECTS.

Remember to mention CHEM-EF (final project/personal research project), the number of agreed ECTS and the name of the professor in your Learning Agreement. You should make sure that the topic you are interested in is also suitable for your major. It is essential that you have a strong background in the field that you choose, as it is impossible to complete a demanding project in a field that is completely or almost new to you.

When you have submitted your exchange application with the required attachments and details of the project envisioned, we will confirm with the professor you have mentioned that the project work can be provided. Please note that the possibility to complete a project always depends on available resources and a placement may be difficult to arrange.

The process of finding a project placement may take some time, so please be patient and start the process early enough.

It is recommended to be prepared to take courses as well. This will enable you to carry out a student exchange even if you cannot find a project placement. Additionally, it might be easier to find a placement after starting your student exchange at Aalto, as you can meet the professor personally for further negotiations.

How the project is registered in transcript of records?

Project work will be registered in the official transcript of records as a course (code CHEM-EF), not as an official Master’s Thesis. Also, the amount of credits and grade (numerical grading from 1 to 5) will be mentioned. However, a separate, official evaluation statement will not be provided. Students should follow the process at their home university to get the work evaluated as a Bachelor’s / Master’s Thesis, to have the presentation etc. After the work is ready, the supervisor will inform the administration at the School of Chemical Engineering, and the course will be registered to the transcript of records.

NOTE: remember to agree with your supervisor on the topic, the schedule and the scope (= how many credits you will receive (e.g. 30)). Please remember that the project work must be completed and submitted within the time limitation of the study right.