1 Master’s Program

The ETH Zurich (Department of Mechanical Engineering - D-MAVT), in conjunction with the EPF Lausanne, offers the specialized Master’s Program in Nuclear Engineering since 2008. The Paul Scherrer Institute (PSI) contributes to the program by offering supervision and scientific infrastructure for projects and Master’s theses as well as by providing additional academic lecturers. Other institutions and research groups involved in the Master’s Program are the Energy Science Center (ESC) at ETH Zurich and the Energy Center (CEN) at EPF Lausanne.

The Master of Science in Nuclear Engineering prepares students for the diversity found at the frontiers of research and industrial development in the field of nuclear technology and offers a high level of interdisciplinarity, ranging from nuclear, neutron and reactor physics and radiation protection to thermo-fluid dynamics, reactor safety and materials science.

The overall objectives of the Master’s Program in Nuclear Engineering (NE) are to:

- Provide in-depth knowledge on nuclear fission for energy supply
- Provide complementary knowledge on nuclear fusion
- Provide knowledge on nuclear techniques in medicine, research and industry
- Provide a view on the complete nuclear energy conversion system and the entire fuel cycle
- Integrate nuclear energy into energy systems as a whole.

This Master’s Study Guide provides detailed information relating to the “Program Regulations 2014 of the Joint Master’s Degree Program in Nuclear Engineering – Department of Mechanical and Process Engineering”.

➔ https://rechtssammlung.sp.ethz.ch/Dokumente/324.1.0300.32.pdf
1.1 Tutor System

The Master’s Program in Nuclear Engineering is supervised and coordinated by an ETH or EPFL professor, designated as “tutor”. The student can select the professor to discuss the elective courses or other issues related to the study program.

Professors of the Nuclear Engineering Core Group, who are involved in teaching and research related to one or more aspects of nuclear energy systems, are authorized to act as tutors.

⇒ www.master-nuclear.ethz.ch/tutors.html

1.2 Curriculum structure

Students must obtain 120 ECTS to qualify for a Master's Degree in Nuclear Engineering. The curriculum is structured in five categories. In each category, a given number of credit points must be attained.

<table>
<thead>
<tr>
<th>Category</th>
<th>ECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses</td>
<td>62</td>
</tr>
<tr>
<td>Electives</td>
<td>12</td>
</tr>
<tr>
<td>Semester Project</td>
<td>8</td>
</tr>
<tr>
<td>Internship</td>
<td>8</td>
</tr>
<tr>
<td>Master's Thesis</td>
<td>30</td>
</tr>
</tbody>
</table>

The first (autumn) semester of the Master in Nuclear Engineering takes place at EPF Lausanne. The second (spring) semester takes place at ETH Zurich. The third semester is dedicated to Core Courses (organized as lecture blocks at PSI in Villigen), the Internship, and the Semester Project. The Master's Thesis in the fourth semester is carried out at a lab of the PSI or at EPF Lausanne or at ETH Zurich.

1.2.1 Core Courses

The Core Courses lay the foundation of the Master's Program in providing students with core knowledge according to the program’s goals and the qualification profile. Core Courses are described in the Course Catalogue, with an indication as to whether they are
compulsory courses. The tutor, in consultation with the student, determines an individual curriculum, which includes all the core subjects compulsory for students of the Program as well as the elective Core Courses. This curriculum should guarantee a solid, varied educational foundation and at the same time take into account the student’s talents and expectations.

⇒ www.course-catalogue.ethz.ch

1.2.2 Electives

The courses in the category “Electives” give the students an opportunity to deepen their degree-specific knowledge or extend their understanding of economics and the social sciences.

The courses can be selected from among the complete Course Catalogue of the Master’s level of ETH Zurich and the EPF Lausanne.

At least 4 credit points must be obtained from courses from the section of humanities or, respectively, from entrepreneurship and technology management.

1.2.3 Semester Project

In the Semester Project, students deploying the knowledge and competences acquired in the first two semesters gain their first experience of research and development in the nuclear engineering field. The Semester Project corresponds to a workload of 240 hours (six weeks full time) and can be completed in part- or full-time.

The Semester Project is supervised by an ETH Zurich or EPF Lausanne professor and must be approved in advance by the tutor.

The supervisor proposes the subject of the project, supports the student in the preparation of the project plan, defines the road map together with the student and monitors the overall execution of the project.

The student has to enroll for the Semester Project on myStudies latest up to one month after the start date. It is necessary to enter the details (start date and submission deadline,
title) as agreed upon with the supervisor. After the confirmation by the supervisor and the tutor has been given, the project is registered definitely.

The Director of Studies may approve an extension of the submission deadline if justified reasons are given.

➔ www.ethz.ch/content/dam/ethz/special-interest/study-programme-websites/master-mechanical-engineering-dam/documents/Request%20to%20extend%20project_thesis.pdf

The Semester Project is concluded with a written report and a presentation. If the student does not pass the Semester Project, a new topic must be defined for a second attempt.

Successfully completing the Semester Project is a pre-condition for beginning the Master's Thesis.

1.2.4 Industrial Internship

The main objective of the 12-week internship is to expose Master students to the industrial work environment. During this period, the student will have the opportunity to be involved in ongoing projects at the host institution.

The internship is compulsory and can be carried out during the third semester.

Ideally, students complete an Industrial Internship in one of the nuclear utilities in Switzerland, in ZWILAG or NAGRA. Alternatively, the Industrial Internship can be carried out in a foreign industrial company. Students may organize their internship independently or they can ask the tutors for advice and support. The tutors will help the students to establish the contact with the industrial enterprise and discuss tasks, the work plan and results.
To acquire the 8 ECTS for the internship, the student must complete the following steps:

- Obtain an internship;
- Work in a nuclear utility or company for at least 12 weeks;
- Receive a letter of confirmation from the nuclear utility / company including the activities and tasks performed during the internship;
- Submit the letter of confirmation through the internship application.

⇒ www.mavt.ethz.ch/praxis

1.2.5 Master's Thesis

The Master's Thesis (30 ECTS) constitutes a full-time project (25 weeks), aimed at advancing the skills and capabilities of students to work independently and creatively towards the solution of an independent research problem.

In order to start the Master's Thesis, students must:

- have obtained a Bachelor's Degree;
- have fulfilled all additional requirements requested for the admission;
- have acquired 72 credit points in core and elective courses;
- have acquired the 8 credit points for the Semester Project.

Nonetheless, it is recommended to only start the Master's Thesis after achieving all required credit points for the courses.

In general, the Master's Thesis is pursued in one of the research laboratories of the Nuclear Energy and Safety Department (NES) at PSI, the ETH Domain's research institute and Switzerland's main player in nuclear (fission) energy-related R&D. Alternatively, the Master's Thesis can be undertaken in the Laboratory of Nuclear Energy Systems at ETH Zurich or in the Laboratory of Reactor Physics and Systems Behavior at EPFL.

If the Master's Thesis is completed at PSI (Paul Scherrer Institute), its research work will be directly supervised by a PSI staff scientist. Full responsibility, however, remains with the Master's Thesis supervisor, who is always a professor at ETH Zurich or EPFL Lausanne. The supervisor defines the roadmap, the milestones, deadlines, presentation,
report, dates and the criteria for assessment, and is responsible for monitoring the structure and quality of the thesis.

The student has to register the Master’s Thesis on myStudies latest up to one month after the start date. It is necessary to enter the details (start date, submission deadline and title) as agreed upon with the supervisor, as well as uploading the project description. The submission deadline is binding. After the confirmation of the supervisor and the tutor has been given, the thesis is registered definitely.

The Director of Studies may approve an extension of the submission deadline if cogent reasons are given.
Request to extend project/thesis

➔ www.master-nuclear.ethz.ch/curriculum/master-s-thesis.html

If a Master’s Thesis is not successfully completed, a new topic must be defined.

No form of remuneration is to be agreed upon by students or institutions of ETH Zurich with third parties. Expenses, however, may be covered by third parties.

➔ www.ethz.ch/content/dam/ethz/common/docs/weisungssammlung/files-en/remuneration-written-papers.pdf

If secrecy between ETH Zurich and the industrial partner is required, it has to be specified in an arrangement between the responsible professor and the company. The ownership of the property laws has to be regulated for each particular case.

➔ www.ethz.ch/services/en/service/legal-matters/documents.html (in German, Login needed)

The ownership of the intellectual property has to be determined for each particular case. Generally, students are creators and authors of their work according to Swiss copyright law. All intellectual property rights regarding the Master’s Thesis and its results remain in their possession.

If secrecy between ETH Zurich and the industrial partner is required, it has to be specified in an arrangement between the responsible professor and the company.
2 Master’s Degree

As soon as all required credit points from the six categories have been obtained, the student may request the diploma through myStudies.

Students may have 130 ECTS recognized for the Master’s Degree. At the student's request, additionally obtained credit points from the Course Catalogue of ETH can be listed on the Addendum of the final academic record.

All performance assessments appear on the academic record. Failed performances that have not been successfully repeated are listed on the addendum.

The printed and signed diploma request needs to be submitted to the D-MAVT Student Administration or sent to info@mavt.ethz.ch.

When all prerequisites are completed, the Master’s Degree will be conferred and the student may assume the title of:

**Master of Science ETH in Nuclear Engineering ETH Zürich – EPF Lausanne**

or in the short form

**MSc NE ETH Zürich – EPF Lausanne**

or with the additional Information

**Joint Degree ETH Zürich – EPF Lausanne**

The Degree Certificate is issued jointly by EPF Lausanne and ETH Zurich.

The Overall Grade Point Average of the Master's Degree is composed of the weighted grade point average of the following categories:

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses / Electives / Semester Project</td>
<td>3</td>
</tr>
<tr>
<td>Master's Thesis</td>
<td>1</td>
</tr>
</tbody>
</table>
The average of the Core Courses and Electives are weighted according to the credit points of each course.

The students receive a transcript in German and in English, a ranking information, a diploma supplement and an official diploma in either German, French or Italian.

Outstanding students with an overall average grade of 5.75 (or higher) will be awarded with the title “passed with distinction”. This title will be specified on the diploma and the transcript.

3 Duration

The Master's Program is designed as a full-time study program. The completion of 120 ECTS requires 4 semesters on average; the maximum duration of study is 4 years.

Under special circumstances, the Rector may approve an extension of the study duration.

➔ www.ethz.ch/students/en/studies/administrative/study-terms.html

4 Language

Course units in the Master Nuclear Engineering and the corresponding performance assessments are normally conducted in English. The language used is listed in the Course Catalogue.

➔ www.course-catalogue.ethz.ch
5 Admission and application

The joint Master of Science in Nuclear Engineering Program has a strong interdisciplinary nature and students can apply to the program based on a Bachelor’s Degree in a broad range of basic and engineering sciences:

- Chemical Engineering
- Chemistry
- Electrical Engineering and Information Technology
- Mechanical Engineering
- Materials Science
- Mathematics
- Micro-engineering
- Physics

The Master’s Program starts in autumn semester only.

Candidates for the Master’s Program must present proof of specialized and sound knowledge and abilities in the fields of science and engineering and very good study performances in the fundamental disciplines. These skills are a minimum requirement and serve as a basis for the admission process.

⇒ www.ethz.ch/master-requirement-profiles

The candidates can apply to both universities, considering the deadlines and required documents by each university. The allocation of the selected candidates to either ETH Zurich or EPF Lausanne is made on the following basis: Students with degrees from a Swiss university are free to choose the university at which to enroll. Students from non-Swiss universities will be admitted, in approximately equal number, to both EPF Lausanne and ETH Zurich, the allocation being partly guided by the stated technical interests of the students (e.g. thermal-hydraulics at ETH Zurich, physics and materials at EPF Lausanne, energy systems at either ETH Zurich or EPF Lausanne).

Admission is made by the admission committee of the Master's Program, based on an individual evaluation of the application file (evaluation sur dossier):
• Assessment of the profile;
• Performance and grades;
• Academic ranking;
• CV and motivation letter describing personal goals and motivation for studying for the Master's in Mechanical Engineering at ETH Zurich;
• Three preferred tutors and their order of preference;
• 3 letters of recommendation;
• GRE Test;
• Any additional documents that may be relevant for the application, such as scientific or professional publications, awards, information about previous education, etc.;
• An English test (Level C1) for non-native speakers (TOEFL, IELTS or equivalent)

Students can be admitted with or without additional requirements, but they may be rejected as well. The Admissions Office will inform the students on the decision and (in case of admission) about the tutor assigned and the courses defined as additional requirements.

Students holding a degree from a Swiss University of Applied Sciences with good grades (more than 5.0) can be admitted with the precondition that they must take a minimum of 40 ECTS and up to a maximum of 60 ECTS of additional courses.

Credit points acquired from courses from other degree programs at ETH Zurich may be recognized towards the Master's Degree if these credit points have not yet been counted towards another degree. It is not possible to recognize ECTS credit points obtained from previous study programs outside ETH Zurich.

It is not possible to recognize ECTS credit points obtained from previous study programs outside ETH Zurich.
5.1 Enrollment

Students admitted at ETH Zurich will receive a registration form enclosed with an admission letter and they have to follow the instructions and deadlines set in the admission letter.

➔ https://ethz.ch/en/studies/master/accepting-your-place/registration.html

Regardless of the university of primary enrollment, all students follow the same curriculum, so that all students will be registered for courses at EPF Lausanne for the first, and at ETH Zurich for the second semester. While studying away from their university of primary enrollment, they will be registered as “exchange” students at the host university.

6 Performance Assessment

A performance assessment is required for all courses of the Master's Program in Nuclear Engineering. The type of assessment is defined by the lecturer. For example, assessments can be made through exercises, projects, presentations or tests. The details are given in the Course Catalogue of ETH Zurich. Only one repetition is permitted. It is only possible to repeat a failed examination if the offering department of ETH Zurich or the respective university provides no other regulations for the repetition. A passed examination cannot be repeated.

➔ www.course-catalogue.ethz.ch
➔ www.ethz.ch/students/en/studies/performance-assessments.html

Examinations Office

HG F18, Rämistrasse 101, 8092 Zurich
Email: exams@ethz.ch, Tel.: +41 44 632 20 68
6.1 Types of performance assessments

There are three different types of performance assessments:

- Session examinations
- End-of-semester examinations
- Semester performances

6.1.1 Session examinations

This form of performance assessment is carried out during the examination sessions, which are held twice a year: once during the winter session (calendar weeks 4-7) and once during the summer session (calendar weeks 32-35). These examinations are planned by the Examinations Office and are listed in the student's personal examination schedule, which is shown on myStudies.

The student must register for the session examinations during the third or fourth week of each semester.

It is possible to withdraw from examinations via myStudies (otherwise, the examination will be considered as failed “no show”), according to the following deadlines:

- from the third week of the semester until Sunday at midnight (24:00 hours) one week before the start of the examination session.

Once the withdrawal deadline has expired, it is only possible to withdraw on grounds of force majeure (e.g. illness, accident).

There are performance assessments which are only offered in the session immediately after the course. These examinations are specified in the Course Catalogue by the following label: “Repetition only possible after re-enrolling for the course unit”.

6.1.2 End-of-semester examinations

This form of performance assessment is carried out during the last two weeks of a semester and during the first two weeks after the end of the semester. The examination dates are announced by the lecturer offering the course. These examinations are thus not shown in the examination schedule on myStudies.
The student must register for the end-of-semester examinations during the third or fourth week of each semester through myStudies.

It is possible to withdraw from examinations via myStudies (otherwise, the examination will be considered as failed “no show”), according to the following deadlines:

- from the third week of the semester to the penultimate week of the semester (Sunday at midnight, 24:00 hours).

It is possible to repeat a performance assessment without re-enrolling in a course, if a repetition date, generally at the start of the following semester, is offered. The lecturer offering the course also announces this date. For repetition, it is necessary to register through myStudies. This is only possible once the results are decreed.

### 6.1.3 Semester performance

This usually takes the form of integrated performance assessments during the semester or performance assessments which take place outside of the normal semester schedule (e.g. theses, projects). Semester performances may be graded or ungraded. Students must enroll in the respective course.

### 6.2 Grading System

Courses can be assessed with “pass/fail” or with a grade.

ETH Zurich does not use the ECTS Grading Scheme. The grading scale goes from 1.0 to 6.0 in quarter grade (0.25) steps. The pass grade is 4.0, the maximum grade is 6.0.

If the student discontinues a project or fails to show up for an exam, the performance will be regarded as failed and will be marked with the term “no show”.

➔ [www.ethz.ch/content/dam/ethz/main/education/rechtliches-abschluesse/grading.pdf](http://www.ethz.ch/content/dam/ethz/main/education/rechtliches-abschluesse/grading.pdf)
6.3 Credit Points

The credit system of ETH Zurich is based on the European Credit Transfer System (ECTS) and 1 ECTS corresponds to an average workload of 30 hours. 30 ECTS are equivalent to one semester of full-time study.

Credit points are assigned to each learning unit according to the expected student workload. Courses are indicated in the Course Catalogue with credit points as well as hours. In general, courses at Master’s level at D-MAVT correspond to 4 ECTS (3-4 hours per week).

Credit points are only awarded for successfully completed assessments. Partial awarding of credit points is not permitted.

7 Exchange

The Department of Mechanical and Process Engineering (D-MAVT) supports its students in pursuing an exchange semester. A period of stay as a mobility student at another university enriches the student’s experience and extends their horizons.

The exchange programs are open only for students with an ETH Bachelor and with good academic performances, according to ETH directives. Students who are interested in an exchange semester organized by ETH should review the materials available via the ETH Zurich Student Exchange Office, choose an appropriate program and university, complete the application form and adhere to the application deadline.


➔ D-MAVT Student Exchange supports the student in making a choice of university and preparing a study plan for the exchange semester. www.mavt.ethz.ch/studies/exchange-and-visiting-studies.html
According to ETH Zurich regulations, at least two-thirds of the credit points required for a Master's Degree must be obtained at ETH Zurich. D-MAVT requires that at least 12 credit points in the category Core Courses (36 ECTS) have to be achieved at ETH Zürich.

The Director of Studies is responsible for the recognition at ETH of credit points achieved in an exchange semester. An agreement exists between some universities and ETH Zurich for the recognition of courses and credit points. The grades are translated in the ETH system, according to the table provided by the ETH Student Exchange Office. The courses, credit points and grades are included in the ETH transcript, according to the category approved by the tutor.

Information about financial issues, travel costs, enrollment can be found on the webpages of ETH Zurich.


8 MyStudies

“MyStudies” is the central application for all students to administrate their studies. The myStudies application is available to active ETH Zurich students, using the “nethz” (username) and password. The username and password is assigned by the Registrar’s Office once the complete enrollment documents have been received by ETH Zurich.

➔ www.myStudies.ch

The most important activities on myStudies include:

- Enroll for the new semester
- Register for courses, projects and theses
- Register for examinations
- Transcript of Records
- Request to issue the Degree certificate
10 Plagiarism

It is the responsibility of the student to be aware about the handling of scientific knowledge and the potential consequences of violating the rules.

A signed Declaration of Originality is a component of every Master’s Thesis and Semester Project. By signing the Declaration of Originality, students attest that they have authored the work in question themselves; read the ‘Citation Etiquette’ information sheet on plagiarism; and adhered to the rules of citation standard in their disciplines. Further information and required documents are provided on the ETH webpage:

➔ www.ethz.ch/plagiarism
11 Code of Conduct

The Department of Mechanical and Process Engineering ensures that the environment is respectful and professional for ALL of our members including professors, students, research, administrative and technical staff, and lecturers.
We treat everyone with the same respect with which we expect to be treated. We behave and present ourselves professionally at all times.

Our environment is:

- one of mutual respect
- free from threats and violence
- free from sexual harassment
- free from discrimination
- free from bullying and mobbing

⇒ www.mavt.ethz.ch/the-department/code-of-conduct.html

12 Correct usage of Telematics Resources (“BOT”)

Each student is personally responsible for ensuring that her/his use of Telematics Resources at ETH Zurich does not violate the provisions of the Acceptable Use Policy as well as ensuring a secure data management.

Acceptable Use Policy:

⇒ https://rechtssammlung.sp.ethz.ch/Dokumente/203.21en.pdf
⇒ itsecurity.ethz.ch/de/#/prevent_malware_infection
⇒ www.itsecurity.ethz.ch/en/#/manage_your_data
13 Financial

Like any form of education, studying at ETH Zurich costs money. In addition to tuition fees and semester fees, most importantly there are living costs to consider too. It is estimated that students spend CHF 16,000 to CHF 26,000 on study and living costs each year.

13.1 Tuition fees

The tuition fees and semester fees of ETH are CHF 730.00/semester plus CHF 69.00/semester compulsory fees.


The tuition fee does not apply for students taking a leave of absence semester. With enrollment for individual courses during the leave of absence, CHF 60.00 CHF is charged for each semester hour up to a maximum of the tuition fee for a full semester (CHF 730.00). However, the compulsory semester fees must be paid.


13.2 Scholarships

ETH Zurich can offer a scholarship to students if they and their family cannot afford this funding, provided that the students can demonstrate that they are making adequate progress with their studies.

➔ www.ethz.ch/scholarships

Excellence Scholarship & Opportunity Programme
ETH Zurich supports excellent Master's students with the Excellence Scholarship & Opportunity Programme (ESOP).

➔ www.ethz.ch/excellence-scholarships-en

Markus Meier Fund
D-MAVT has special funds for students who have completed studies at a Swiss university or at a University of Applied Science.

➔ www.mavt.ethz.ch/studies/markus-meier-fund.html
14 Useful information about ETH Zurich and EPF Lausanne

14.1 Contacts D-MAVT

D-MAVT Student Administration
LEE K 208
Leonhardstrasse 21, 8092 Zurich
Phone: +41 44 632 43 92, email: info@mavt.ethz.ch

Opening hours (or by appointment)
During the semester: During the semester break:
Mon: 13:00 – 16:00 Mon: closed
Tue: 09:00 – 12:00 Tue: 09:00 – 12:00
Wed: 09:00 – 12:00 Wed: closed
Thu: 13:00 – 16:00 Thu: 13:00 – 16:00
Fri: 09:00 – 12:00 Fri: 09:00 – 12:00

D-MAVT Student Exchange
Ji Hyun Lee
LEE K 207
Leonhardstrasse 21, 8092 Zurich
Phone: +41 44 632 59 24, email: mobility@mavt.ethz.ch

Opening hours:
Mon – Thu, 9:00 – 12:00
14.2 Contacts ETH

Admissions Office
Zentrum campus, Main Building, HG F 21.2-5
Opening hours: Mon – Fri: 11:00 - 13:00
Phone: +41 44 632 81 00, email: master@ethz.ch

Registrar’s Office
Zentrum campus, Main Building, HG F 19
Opening hours: Mon – Fri: 11:00 - 13:00
Phone: +41 44 632 30 00, Fax: +41 44 632 10 61, email: registrar@ethz.ch

Examinations Office
Zentrum campus, Main Building, HG F 18
Opening hours: Mon – Fri: 11:00 – 13:00 or as arranged by phone
Phone: +41 44 632 20 68, email: exam@ethz.ch

International Student Support
Zentrum campus, Main Building, HG F 22.3
Phone: +41 44 632 20 95, email: international@sts.ethz.ch

Financial Aid Office
Zentrum campus, Main Building, HG F 22.1
Phone: +41 44 632 20 40, email: studienfinanzierung@sts.ethz.ch

Disability Advisory Service
Zentrum campus, Main Building, HG F 68.3
Phone: +44 632 35 92, email: karin.zuest@sts.ethz.ch

Psychological Counseling University Zurich and ETH Zurich
Phone: +41 44 634 22 80, email: pbs@ad.uzh.ch
14.3 Weblinks

Webpage Master of Science in Nuclear Engineering
➤ www.master-nuclear.ethz.ch/

Student portal
➤ www.ethz.ch/students/en.html

Course Catalogue
➤ www.vvz.ethz.ch

AMIV (Academic Association of Mechanical and Electrical Engineers, ETH)
➤ www.amiv.ethz.ch

LIMES (Ladies in Mechanical and Electrical Studies)
➤ www.limes.ethz.ch/

SOSETH
➤ https://sos.ethz.ch/

Housing Office of University Zurich / ETH Zurich
➤ www.wohnen.ethz.ch/en

WOKO Studentische Wohngenossenschaft (Home for Students)
➤ www.woko.ch

ETH Zurich Ombudsperson
Confidential qualified help in case of serious difficulties, conflicts and personal crises

Nightline Zürich
Independent help-line from students for students
➤ www.nightline.ch
14.4 ETH Zurich in short

Consistently rated among the top universities in Europe, ETH Zurich is a leading participant in the world of research and education in Switzerland and abroad. Its 16 departments offer Bachelor, Master and Doctoral Programs in engineering, natural, and social sciences.

ETH Zurich has more than 22,000 students from approximately 120 countries, 4,000 of whom are doctoral candidates. About 540 professors teach and conduct research in the areas of engineering, architecture, mathematics, natural sciences, system-oriented sciences, and management and social sciences.

21 Nobel Laureates have studied, taught or conducted research at ETH Zurich, underlining the excellent reputation of the institute; the most famous graduate of ETH was none other than Albert Einstein.

The international environment – close to 60% of the professors come from outside of Switzerland – and the excellent teaching and research infrastructure make ETH Zurich the ideal place for creative individuals. Connections with businesses and industries are strong, as the Greater Zurich Area is the economic center of Switzerland and home to numerous international companies.

ETH has two principal locations: one in the center of Zurich and the Science City campus at Hönggerberg, just outside the city.

➔ www.ethz.ch/en/campus.html

14.5 EPF Lausanne

Located in full view of the Alps on the north side of Lake Geneva in one of Europe’s most beautiful cities, EPF Lausanne is home to over 9000 students. With state-of-the-art facilities in a single campus, bright, motivated students, and an outstanding faculty, EPFL’s reputation as a top-rate teaching and research institution continues to grow. There are over 110 nationalities represented on campus. With 50% of its faculty recruited internationally and 65% of the PhD students coming from abroad, EPF Lausanne is one of the most international universities in the world. The campus is structured to foster
innovation and interdisciplinary research, and students benefit from this atmosphere as their skills and interests evolve.

➔ www.epfl.ch

14.6 Zurich – the city

Zurich is well-known as a safe and attractive city – indeed, for several consecutive years it has been ranked as having the highest quality of life in the world. Despite its relatively small size (380,000 inhabitants), the city has an international metropolitan flair and offers an extensive range of leisure amenities.

While Berne is Switzerland’s political capital, Zurich is considered its business capital: formerly an industrial town, the city’s focus has shifted to commerce and knowledge-intensive enterprise.

With its theatres, concert halls, museums, art galleries, libraries, bookshops, and educational institutions at all levels, Zurich is also a center of cultural importance. Its location on Lake Zurich and its proximity to the Alps and other places of scenic interest make Zurich a pleasant place to live in both summer and winter.

Zurich has excellent air, rail and road connections. Eurocity and Intercity trains from all directions stop at the central station. Within the metropolitan area, there is a combined network of public transportation, linking rapid suburban rail, trams, buses and boats.

14.7 Lausanne

Lausanne, the capital of Canton Vaud, lies on Lake Geneva in the French-speaking part of Switzerland. Its population of 135,000 includes some 25,000 students. Lausanne plays a major role in the field of international sport. In particular, as it houses the headquarters of the International Olympic Committee (IOC), it has earned the title of “Olympic Capital”. The town is characterized by its steep streets and the over 500 m difference in level between the shores of Lake Geneva and the city’s heights.
14.8 Locations

ETH Zurich

⇒ www.ethz.ch/en/campus/access.html

D-MAVT

⇒ www.mavt.ethz.ch/the-department/locations.html
EPFL

➔ https://map.epfl.ch

PSI

➔ https://www.psi.ch/en/visit/how-to-find-us