

# Quality in teaching at ETH Zurich

*Drawing on the teaching policy of ETH Zurich, this document sets out the quality criteria for degree programmes and courses, and ETH Zurich's expectations of all those engaged in the teaching processes.*

## Quality criteria for degree programmes and courses

*The quality criteria for degree programmes and courses constitute guidelines for the development of curricula and courses.*

### **Degree programmes (for: Directors of Study)**

Every degree programme is defined through the regulations, Study Guide and Diploma Supplement. The focus of the Diploma Supplement is the qualification profile (section 4.6) and the main fields of study (section 2.2). The qualification profile sets out domain-specific and cross-disciplinary competences<sup>1</sup>. The main fields of study describe the disciplinary direction.

ETH Zurich degree programmes satisfy the following criteria:

#### Qualification profile

The qualification profile describes the learning outcomes that should be achieved through the degree programme. It defines the domain-specific and cross-disciplinary competences that ETH graduates should acquire. The degree programme curriculum is dedicated to building these competences, contains possible acquisition modes, and defines how they will be verified.

#### Disciplinary education

A sound disciplinary education is guaranteed. This covers the understanding and application of core concepts, essential scientific and disciplinary skills, a link to current research, and theme-specific majors/specialisations. The main fields of study represent the orientation of the content and special aspects of disciplinary training.

#### Concept

The overall degree programme concept is clearly recognisable, and programme content features a high level of coherence, with alignment of the individual courses and achievement of the qualification profile goals. Disciplinary-specific aspects are integrated early (in the first year, if possible). Personal initiative and independence are fostered, together with enabling opportunities for choice. Each student is offered guidance and monitoring in shaping their studies.

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<sup>1</sup> See the model for compiling a qualification profile at ETH Zurich: <https://www.ethz.ch/en/the-eth-zurich/education/educational-development/documents.html>

## Structure

The curriculum, and its implementation via particular course forms, is realistic with regard to the number of credits required and offers an optimal (not a maximum) number of choices. The student workload over the semester is balanced and the time available to prepare for examinations is taken into account. A period for possible student exchange is built into the degree programme. Prevailing ETH requirements (e.g. a pass grade in the first-year examinations) are fulfilled.

## Performance assessments

There is an appropriate spectrum of performance assessments, which serve to verify the acquisition of competences.

## Flexibility and innovation

The curriculum offers consistency in its core subjects but also contains room for current developments and new fields of study. A culture of enablement fosters openness to innovative ideas in the study course.

## Professional ethics

Students are made aware of responsible conduct with regard to society: probity, fairness, and honesty, social and sustainable behaviour.

## Relation to the occupational arena

Graduates' later professional needs are taken into consideration. Feedback from the occupational arena is examined critically and fed into degree programme development.

## Regular evaluation

Ongoing critical review of the degree programme (from both internal and external perspectives) is guaranteed. Students, lecturers, alumni/ae and peers are all involved.

## Infrastructure and administration

The degree programmes have access to effective teaching infrastructure. Students and lecturers are familiar with all points of contact and the official bodies that represent, or are related to, them.

## **Courses (for: lecturers)**

Courses are described in the Course Catalogue. Content, learning objectives, a short overview of the course, and information regarding the performance assessment are central to the course description, which also illustrates how the course is related to the curriculum. The department guarantees the coherence of content.

ETH Zurich courses satisfy the following criteria:

## Alignment with the curriculum

The course contributes to the competences targeted in the respective curriculum (qualification profile) and builds upon previous curricular knowledge (content and competences).

## Orientation towards learning objectives

Learning objectives are clearly formulated, unambiguous, ambitious and binding. The content and form of lectures, exercises, projects, experiments, practicals and performance assessments are aligned with learning objectives.

## Appropriate performance assessments

Examinations and other types of performance assessment are oriented towards learning objectives. Performance evaluation is the same for everyone, unambiguous, and fair.

## Student-centred teaching

- Shaping  
Structure, progression of content and choice of method correspond to the learning objectives and the prevailing conditions (number of students, infrastructure). Elements of course content are aligned and take into account students' previous knowledge. Student diversity is respected.
- Activation of students  
The course inspires consistent (not sporadic), intensive and critical examination of its content. Students are appropriately engaged and their independent learning and thinking is fostered.
- Orientation towards students' levels  
Vehicles for revealing student learning progress are established during teaching and all further learning phases. Students, assistants and lecturers deploy the resulting findings (e.g. in adjustments to learning behaviour, teaching design considerations).
- Evaluation  
The course undergoes regular critical review on the basis of feedback (from students, assistants, alumni/ae, peers).

## Link with research and/or practice

A link with current research or practice is demonstrated, wherever possible. Lecturers and assistants deploy their research and practical experience, as appropriate, in their teaching.

## Workload

Credits reflect the actual average student workload. The expected workload is clearly stated.

## Documents

The course uses informative and intelligible documentation, which aids learning.

## **ETH's expectations of those involved in teaching processes**

*ETH's expectations of students, assistants, lecturers and administrative and technical staff are set out in the following section. These expectations serve as a guideline for the recruitment, management and development of ETH members.*

### **Students**

#### **Self-image**

Students experience their ETH studies actively. They see themselves not just as recipients of, but as actors in, education. They participate in teaching and help to shape it, are motivated, and engage themselves in acquiring both disciplinary and non-disciplinary competences; they are open to teaching innovation. Students see themselves as part of ETH and take their right to participate seriously. They value and take advantage of the possibilities given to them by ETH, and obey the prevailing rules.

#### **Personal responsibility**

Students act independently and take responsibility for their learning progress. They provide mutual support and make common cause of their studies. Students regularly review their academic situation and are motivated to develop themselves. They gather the necessary information independently, and seek any required help at the right time.

#### **Communication**

Students give their peers, lecturers and assistants discerning feedback and take a constructive approach to criticism. They are respectful towards contact persons, e.g. in the Study Administration.

### **Lecturers**

#### **Self-image**

Lecturers are responsible for all of the activities that shape their course units within the curriculum. They are committed, and foster enthusiasm for their discipline among students and assistants. They are competent with regard to teaching content and methodology. They continually develop their teaching and incorporate the lessons learnt from feedback from teaching evaluations and other modes of feedback. Lecturers are the direct contact persons for students and assistants.

#### **Responsibility**

Lecturers impart knowledge and skills that correspond to the cutting edge of science, plus personal and social competences. They train their students to be members of society, who think critically. Lecturers are conscious of their function as role models. As examiners, they orient themselves towards learning objectives and qualification profiles; in this context, they appraise not only knowledge, but also the understanding of interconnections, methodological skills and further competences.

#### **Institutional integration**

Lecturers keep the ETH mission in mind and understand the prevailing university framework. They gather the relevant information and are familiar with the rules that govern study operations. Lecturers work with their peers and administrative bodies in a collegial manner. They engage in committees, undertake work in an official capacity and contribute to the ongoing development of ETH.

## Communication

Lecturers are good communicators. They are able to clearly express their expectations, goals and the relevance of their courses for the degree programme. They give constructive feedback to assistants and students, and address critical feedback of their own behaviour.

## Development

Lecturers continually expand their teaching skills, particularly in the pedagogical and didactic areas. They foster exchanges about teaching, in particular with their peers; and engage in discussions that transcend the borders of their disciplines. They are open to innovation in teaching.

## **Assistants**

### **(Student employees, doctoral students, postdoctoral employees and senior assistants)**

#### Self-image

Assistants are competent with regard to teaching content and methodology. Together with the respective lecturers, they clarify their role in, and contribution to, lectures. They recognise where teaching operations need improvement, are committed to innovation in teaching and take advantage of opportunities to participate. Assistants are familiar with the rules governing study operations that are relevant to them.

#### Support for learning processes

Assistants help students to acquire disciplinary and non-disciplinary competences as described in the qualification profile. They act as a link between students and lecturers. They report their own observations and findings to lecturers. Assistants foster an optimal learning atmosphere and team spirit among students.

## Communication

Assistants communicate learning objectives and academic requirements to students. They give constructive feedback to lecturers and students and address critical feedback regarding their own behaviour.

## Development

Assistants continually expand their teaching skills through continuing education in pedagogy and didactics and the open exchange of experience.

## **Administrative and technical staff**

### **(Study administration, study programme coordinators, student advisors, technicians/laboratory staff)**

#### Self-image

Administrative and technical staff support academic operations with their services. They are flexible and efficient and look for pragmatic solutions within the given framework. They are familiar with the various roles of those engaged in academic operations.

#### Participation in shaping processes

Administrative and technical staff provide support for teaching innovation and degree programme development. They offer their own ideas, are open to suggestions from other groups, and examine implementation potential constructively.

## Communication

Administrative and technical staff communicate clearly and intelligibly about the prevailing conditions, processes and regulations of academic operations, in a manner appropriate to the target audience. They actively promote networking among those involved in teaching and arbitrate when different points of view collide.

***Adopted by the Executive Board on 4 October 2016***