

Policies regarding curriculum development and the curricula of degree programmes

This document contains

policies regarding curriculum development (Part 1) and regarding the curricula of degree programmes (Part 2), as set out in the [ETH Zurich teaching policy](#), the document [Quality in teaching at ETH Zurich \(quality criteria\)](#) and the directive [Curriculumsentwicklung und Rechtsetzung Lehre](#) [curriculum development and legislative regulation of teaching] (in German only). Guiding questions illustrate these policies.

This document serves

the Rectorate as the basis for guiding and assisting departments in curriculum creation and revision processes. It helps persons responsible in the departments to plan their curriculum development projects.

Part 1: Policies regarding curriculum development

A. Curriculum development is founded on verified need and clear goals.

- See directive on curriculum development > Art. 5, Para. 1
- See teaching policy > Unity of teaching and research

Guiding questions:

- What are the drivers of this curriculum development process (e.g. considerations in the department, the results of a department evaluation or alumni survey, the needs of industry, instructions issued to the department)?
- What are the goals of the prospective curriculum development process? What improvements or changes will it achieve?
- How will the curriculum be different from comparable curricula? How will it be different from those at other academic levels of the discipline?
- What information will be deployed in the curriculum development process (e.g. teaching evaluation, alumni surveys, your own surveys, student surveys, analyses of the occupational area, findings of teaching and learning research and the subject discipline)?

B. The qualification profile will be newly developed or revised.

- See directive on curriculum development > Art. 8

Guiding question:

- Does the qualification profile represent the academic objectives of the degree programme, and does it describe the target competences for programme graduates in the following categories?:
 - Disciplinary knowledge and understanding
 - Skills
 - Personal and social competences
- Is the qualification profile aligned with the ETH Competence Framework?

C. The cognisant bodies have approved the project.

- See directive on curriculum development > Art. 5, Para. 3; Art. 6; Art. 8; Art. 11

Guiding questions:

- Does the curriculum development project have broad support in the department?

- What groups and bodies are involved in the process (internal: departmental Teaching Commission, Department Conference, Professors' Conference, lecturers, students, Assistants, study programme coordinators, Educational Developers; external: alumni, stakeholders)?

D. Personnel resources and funding are available for the project and its implementation in the study programme.

→ See directive on curriculum development > Art. 5, Para. 2

Guiding questions:

- What personnel resources are available in the department for the project?
- What kind of support is required from the Rectorate (degree programme initiative, didactic guidance, process monitoring)?
- What resources are available for later implementation in the study programme (rooms, infrastructure, administration, special workspaces or laboratories)? Must additional resources be requested?

E. There are guarantees that the new or revised curriculum will be deployed by a sufficient number of ETH professorships.

→ See teaching policy > Self-image and task

Guiding questions:

- How will coverage of the core curriculum be ensured (planning among professors)?

F. Project organisation roles have been determined and a timeline has been set.

→ See directive on curriculum development > Art. 5 and Art. 6

Guiding questions:

- How do project planning and project organisation (project management, project team, working groups, steering group etc.) look?
- Are there interfaces with other departments? Are these taken into account in project organisation and planning?
- Is there a realistic timeline for the project which contains the set deadlines (see the directive)?

G. A communication concept has been established.

→ See directive on curriculum development > Art. 5, Para. 2 and 3

Guiding question:

- What is the plan for communication, internally and externally? Are the affected departments, degree programmes, students, lecturers, external groups etc. also involved?

H. An evaluation of the project has been planned into the process.

→ See document on quality in teaching > Degree programmes > Regular evaluation

Guiding questions:

- How will the curriculum development project be evaluated (e.g., by a rating conference)?
- What available data will be deployed? Will additional survey instruments be developed?
- Will external groups (e.g. peers from other universities) be included in the evaluation process?

Part 2: Policies regarding degree programme curricula

I. The overall degree programme concept is clear and its content is coherent.

- See document on quality in teaching > Degree programmes > Concept
- See document on quality in teaching > Courses > Alignment with the curriculum

Guiding questions:

- How will it be ensured that the themes presented in an introductory course are covered in meaningful breadth and depth, and that these themes are revisited later in adequate form (competence direction)?
- How will the alignment of the qualification profile, the forms of assessment and the range of courses be guaranteed? What structural elements will support this (e.g. tutoring systems with learning agreements, a major/minor system, steering via a range of core courses and electives, or a combination of these)?
- How will it be ensured that the core concepts of the discipline, solid subject knowledge, scientific and disciplinary skills and the required non-disciplinary competences are covered and acquired? In Master's degree programmes, are 90 credits or 120 credits required for students to achieve this goal?
- Will links with occupational fields be set up in the planned curriculum, for example involving mandatory or voluntary industrial internships (attention: resident permit status)?

J. The curriculum is designed to take into account both the diversity of routes into the discipline and the diversity of the student body.

- See the Strategy and Development Plan 2021-2024 (p. 49)

Guiding questions:

- Are the various traditions and contexts of knowledge development in the discipline taken into account in teaching?
- Is the curriculum designed so that students of differing backgrounds and experience (due to gender, culture, social origins etc.) have access to the learning materials (inclusion)?
- Are students with a disability (physical, mental) or a learning difference (neurodiversity) able to complete the curriculum (lectures, exercises, practicals, examinations etc.) without barriers? If not, are alternatives offered?
- Are differing working methods, learning styles, communication forms and social forms addressed (also in teaching and learning formats)?

K. Selective examinations take place early in the curricula of Bachelor's and Master's degree programmes.

- Directive *Grundsätze für Master-Studiengänge* [policy regarding Master's degree programmes] (in German only)

Guiding question:

- When in the curriculum, and in which courses, are selective examinations planned?
- To address the "killer subject" problem, in what areas will there be possibilities to compensate for single subjects?

L. The student workload is balanced.

- See document on quality in teaching > Degree programmes > Structure

Guiding questions:

- How is the workload distributed over the academic year? Is there a correspondence between time invested and credit allocation?
- Has academic feasibility been analysed (burden on students, timetable)?

M. The selected teaching form is conducive to the acquisition of the competences targeted in the qualification profile.

- See document on quality in teaching > Courses > Orientation towards learning objectives
- See document on quality in teaching > Courses > Student-centred teaching

Guiding questions:

- What teaching forms will be deployed in the curriculum to foster acquisition of the competences in the qualification profile? (Lectures, exercises, practicals, groupwork, project-based learning, problem-based learning, etc.).

N. Discipline-specific aspects are presented early in the curriculum.

- See teaching policy > Unity of teaching and research
- See document on quality in teaching > Degree programmes > Concept
- See document on quality in teaching > Courses > Links with research and/or practice

Guiding questions:

- Are there opportunities in the first year to address discipline-specific issues?
- Are students involved early in the department's research activities?

O. The curriculum offers scope for integrating current developments and new fields.

- See document on quality in teaching > Degree programmes > Flexibility and innovation

P. The curriculum offers students choice and scope for individual development.

- See document on quality in teaching > Degree programmes > Concept
- See document on quality in teaching > Degree programmes > Structure

Guiding questions:

- How does the curriculum foster students' personal responsibility for their own learning processes?
- What choices does the curriculum offer? What help do students receive in the decision-making process?
- Is a period of student exchange planned?

Q. The curriculum requires the coherent development of computational competencies.

- See the Executive Board resolution of 24.11.2020

Guiding questions:

- Are the computational competencies in the qualification profile set at an adequate level?
- What learning paths are foreseen for the acquisition of computational competencies?
- How will it be ensured that computational competencies are fostered in courses at the desired level?

R. Awareness of social responsibility and the environment is deliberately integrated into the curriculum.

- See document on quality in teaching > Degree programmes > Professional ethics
- See the Strategy and Development Plan 2021-2024, pp. 29ff.

Guiding question:

- Does the curriculum foster integrity, fairness, and honest, social and sustainable behaviour?

S. In addition to content, the curriculum addresses the strengths, weaknesses and limits of disciplinary concepts and connections with neighbouring fields.

- See teaching policy > Unity of knowledge, thought and action

Guiding questions:

- Where in the curriculum are interdisciplinary aspects of the discipline and critical reflection on the discipline addressed?
- Are courses tailored to the degree programme from the area of Science in Perspective being developed in this context?

29.06.2021, Vice-Rector for Curriculum Development