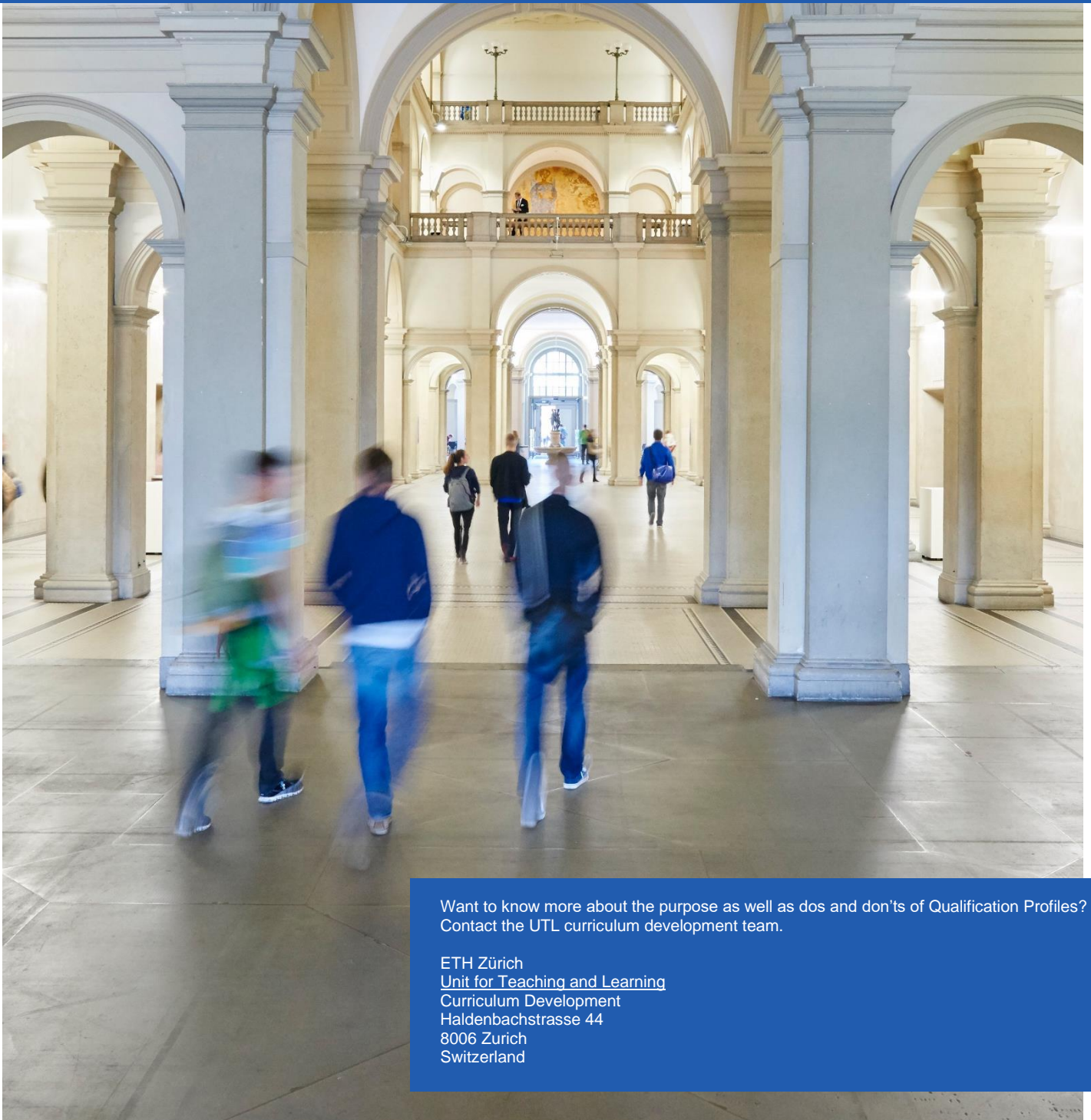# How to? …write a Qualification Profile

Requirements and examples to write a Qualification Profile at ETH Zurich

Want to know more about the purpose as well as dos and don'ts of Qualification Profiles? Contact the UTL curriculum development team.

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Qualification Profile

Qualification Profile is an essential (legal) document as it bridges the overarching goals of ETH with the structure of a degree programme and the concrete design of individual courses. It defines the subject-specific, methodological, social and personal competences that graduates of a degree programme should have acquired by the end of their studies.

Qualification Profiles are compiled by the department responsible for a degree programme in collaboration with its faculty. They are included in the Diploma Supplement provided to graduates and published as an appendix to degree programme regulations. Their content is discussed by the departmental Teaching Commission (UK), which places a request for changes to the Department Conference (DK). Once the Department Conference ratifies the changes, the document is submitted to the Vice Rector for Curriculum Development for approval[1].

The described competences need to be continuously built up over the course of the degree programme, which requires the coordination between the courses comprising the curriculum.

Importantly, the degree programme needs to assure that the competences in the Qualification Profile are covered by the obligatory part of the curriculum.

> "The qualification profile describes the learning outcomes that should be achieved through the degree programme. It defines the domain-specific and transversal 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."
>
> Quality in teaching at ETH Zurich (adopted by the ETH Executive Board on 4 Oct 2016)

[1] Weisung Curriculumsentwicklung und Rechtsetzung Lehre (Studienreglemente)

Structure of a Qualification Profile

Qualification Profile is divided into four parts:
1. Introduction
2. Domain-specific knowledge and understanding
3. Analytical and development skills
4. Personal and social competences

PART 1: Introduction
Describes the academic profile of the degree programme along with possible career paths that graduates are qualified to pursue.

PART 2: Domain-specific knowledge and understanding
This is described in the shape of phenomena, processes and structures as well as domain-specific core concepts that the students have mastered.

PART 3: Analytical and development skills
Skills can be divided into analytical skills (e.g. analyze, model, evaluate) and developmental skills (e.g. design, develop), if this is a helpful distinction for the described degree programme.

PART 4: Personal and social competences
Describes the graduate's professional behaviour, e.g. in the areas of communication or collaboration. For the set of competences that ETH Zurich values university-wide, consult the ETH Competence Framework.
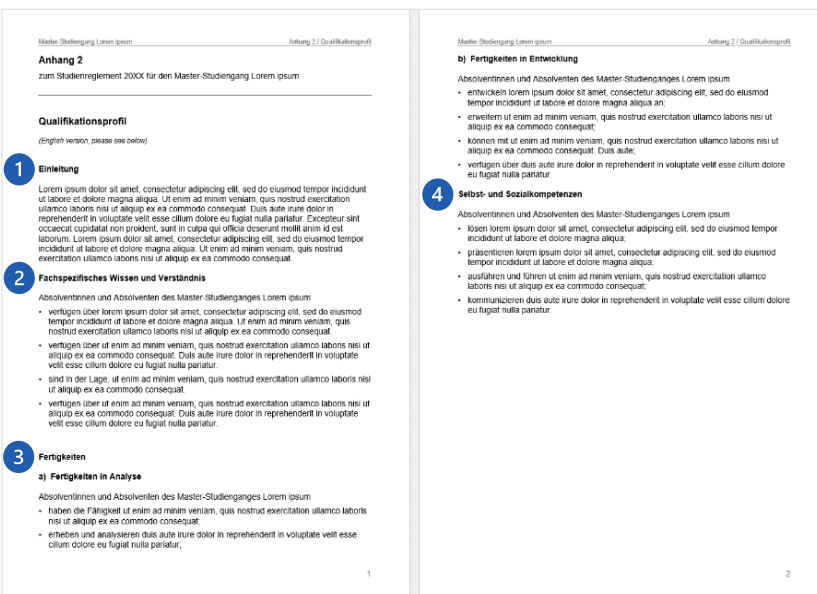
Competence-orientation

Analogous to the learning objectives for an individual course, the competences in a Qualification Profile should be formulated in a competence-oriented way.

Writing **competence-oriented statements** for the Qualification Profile requires focus on defining the specific capabilities that students will be able to **demonstrate** and **apply** in professional or real-world contexts upon graduation. This approach emphasizes **what learners can do** with their knowledge rather than just what they know, aiming to align the educational outcomes with the skills and competencies[2] required in their future careers or academic pathways.

It is important to make sure that the described competences are adequately aligned to the level of the degree programme (Bachelor's or Master's level) and that consecutive degree programmes exhibit a progressiveness in their Qualification Profiles.

Students' knowledge acquisition can be categorized by both breadth and depth, moving from **basic knowledge** to **specialist knowledge**. At the **basic level**, students gain an orientational understanding of a broad disciplinary area. As they progress, they acquire **consolidated knowledge** – an in-depth understanding of either the entire discipline or selected areas, typically through core courses. At the highest level, students attain **specialist knowledge**, where they focus deeply on a specific area, often demonstrated through substantial independent work, such as a Master's thesis.

Key elements of competence-oriented statements in Qualification Profiles

1. **Action-oriented**: Use **active verbs** that describe observable and measurable actions students should be able to perform. Instead of focusing on passive understanding, competence-oriented statements emphasize the **application** of knowledge in practical or professional settings.

   For example, rather than saying "students can understand economic theories," a competence-oriented objective would be "students can **apply** economic theories to analyze market trends and inform decision-making."

2. **Contextualization**: Competence-oriented statements are grounded in **real-world contexts**. It's important to specify not only what students can do but **where and how** they can apply their competencies. This helps clarify the practical relevance of their learning outcomes.

   Example: "Graduates can **design** sustainable engineering solutions for urban infrastructure projects, considering environmental, economic, and social constraints."

3. **Focus on Transferable Competencies**: Qualification Profiles include **transferable competencies** (e.g., critical thinking, communication, problem-solving) that can be transferred across different professional roles and settings. This ensures that students are not just trained for one job but acquire a broader skill set adaptable to various challenges. ETH is committed to a holistic educational approach, integrating transferable competences with the subject-specific competence.

   Example: "Graduates can **collaborate** effectively in multidisciplinary teams to address complex healthcare issues."

4. **Measurable and Assessable**: The statements are framed in a way that can be **assessed** during and after the program. This involves specifying the criteria or standards for performance. The evaluation of competences from Qualification Profiles involves continuous assessment within mandatory courses, each of which develops and trains the competences. This process culminates in examination and grading based on specific criteria.

5. **Integration of Knowledge, Skills, and Attitudes**: Competence-oriented statements integrate **multiple dimensions** of learning, combining knowledge (what students know), skills (what they can do), and attitudes or behaviors (how they act in specific situations). This holistic approach ensures that students not only acquire theoretical understanding but also develop the necessary professional attitudes and behaviors.

   Example: "Graduates can **lead** ethical decision-making processes in business settings, balancing profitability with corporate social responsibility."

How to get started

Elevator pitch – Think about how you could communicate the essence of your degree program to a student who is undecided at the study information days: "What is this program all about? What makes this program special?"

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[2] Competencies are broader, encompassing not just skills, but also the underlying knowledge and attitudes that combined facilitate successful performance.

Skills are components of competencies. They describe specific abilities that can be developed through practice and training.

Checklist for Qualification Profile evaluation

General criteria

☐ QP follows the updated template for Qualification Profiles at ETH (starting in 2016).
☐ Each of the four parts in the QP contains between two and six competences.

Introduction

☐ What specialised academic profile have the graduates of this degree programme acquired?
☐ What professional activities and career paths are open to them after completing the programme?
☐ In what professional context is the degree program situated?

Knowledge and understanding

☐ The "knowledge and understanding" section includes the most important developments in the field.
☐ The content depth is suitable for the program level (BSc or MSc).
☐ Depth and breadth of the knowledge are adequately described.

Skills

☐ The skills are suitable for the academic level (BSc or MSc).
☐ Analytical as well as developmental skills are described in the QP.

Transferrable competencies

☐ The transferable competencies reflect what's important for graduates in this field.
☐ The transferable competencies are linked to ETH's Competence Framework.

Special topics

☐ Where and how are ethical aspects considered in your degree program?
☐ Where and how are aspects of sustainability considered in your degree program?
☐ Where and how are computational competences considered in your degree program?

Language and formulation

☐ The competences in all parts of the QP are formulated using active verbs and specific outcomes.
☐ Competence levels are defined and formulated according to learning taxonomy levels.

Critical reflection and dissemination

☐ The Qualification Profile for your degree program is future-ready.
☐ When would be a good time to revisit it?
☐ All relevant people who are involved in the study program are familiar with the Qualification Profile.
☐ All described competences are covered within the core curriculum (mandatory courses).

Criteria to reflect on each point in the checklist

Not fulfilled at all	Mostly not fulfilled	Fulfilled to some extent	Mostly fulfilled	Fulfilled in an exemplary way

General criteria

	Not fulfilled at all	Mostly not fulfilled	Fulfilled to some extent	Mostly fulfilled	Fulfilled in an exemplary way
QP has required structure (*QPs written before 2016 were published in the old format).	QP does not exist in a structured way.	QP exists but not in the new structure.	-	QP has the new structure.	-
Part 2 to 4 of the QP have between 2 and 6 competences each.	No part has the appropriate number of competences.	Only one part has the appropriate number of competences.	One part has more or less competences	All parts have an appropriate number of competences.	-

Introduction

	Not fulfilled at all	Mostly not fulfilled	Fulfilled to some extent	Mostly fulfilled	Fulfilled in an exemplary way
What specialised academic profile have the graduates of this degree program acquired?	No academic profile is defined, or the profile is vague.	An academic profile is mentioned but lacks clarity or detail.	A clear academic profile is defined but lacking some specificity.	A well-defined academic profile with some detail provided.	The academic profile is clear, detailed, and aligned with employer's needs.
What professional activities and career paths are open to the graduates after completing the program?	Neither academic nor non-academic career paths are given. No mention of qualification for further education.	Description of either academic or non-academic career paths is given. No mention of qualification for further education.	-	Description of either academic or non-academic career paths is given. Qualification for further education of mentioned.	Comprehensive description of future academic as well as non-academic career paths and clear description of qualification for further education is given.
In what professional context is the degree program situated?	The degree program lacks a professional context, unclear or undefined.	The degree program is connected to a professional context, but the description is incomplete.	The degree program's professional context is somewhat defined.	The degree program's professional context is clearly defined.	The degree program's professional context is exemplary and highly relevant.

Knowledge and understanding

	Not fulfilled at all	Mostly not fulfilled	Fulfilled to some extent	Mostly fulfilled	Fulfilled in an exemplary way
The "knowledge and understanding" section includes the most important developments in the field.	There are major developments in the field that are not covered in the QP.	There are developments in the field that are not appropriately covered in the QP	Most important developments in the field are included.	Includes all key developments in the field.	All key developments in the field are comprehensively included.
The content depth is suitable for the program level (BSc or MSc).	BSc and MSc QPs were never compared	BSc and MSc QPs were compared and lack a continuous built-up of most competences	BSc and MSc QPs were compared, and some competences need adjustments in either BSc or MSc QP.	BSc and MSc QPs were compared, and no discontinuities were found.	Content depth follows a continuous development path for the program across BSc and MSc levels.
Depth and breadth of the knowledge are adequately described.	Neither depth nor breadth of knowledge and understanding are described.	Some aspects of knowledge depth or breadth are covered but not consistently.	Depth or breadth are adequately described, but some areas are lacking.	Both depth and breadth are well described.	Both depth and breadth of knowledge are described exemplary.

Skills

	Not fulfilled at all	Mostly not fulfilled	Fulfilled to some extent	Mostly fulfilled	Fulfilled in an exemplary way
The skills are suitable for the academic level (BSc or MSc).	Skills are not appropriate for the academic level.	Skills are somewhat aligned to the academic level.	Skills meet the academic level with minor deficiencies.	Skills meet the academic level in almost all areas.	Skills are comprehensively described and appropriate for the academic level.
Analytical as well as developmental skills are described in the QP.	No description of analytical or developmental skills.	Developmental or analytical skills are partially addressed.	Both analytical and developmental skills are described to some extent.	Analytical and developmental skills are described.	Analytical and developmental skills are described comprehensively and adequately.

Not fulfilled at all	Mostly not fulfilled	Fulfilled to some extent	Mostly fulfilled	Fulfilled in an exemplary way

Transferrable competencies

	Not fulfilled at all	Mostly not fulfilled	Fulfilled to some extent	Mostly fulfilled	Fulfilled in an exemplary way
The transferable competencies reflect what's important for graduates in this field.	Transferable competencies are irrelevant or poorly described.	Competencies are mentioned but do not reflect industry or academic relevance.	Competencies reflect some but not all key transferable competences for graduates.	Competencies reflect what is important for graduates in the field.	Transferable competencies are fully aligned with industry and academic requirements, which were discussed with all relevant stakeholders.
The transferable competencies are linked to ETH's Competence Framework.	ETH Competence Framework was dismissed as irrelevant.	No link to the ETH Competence Framework.	Competences are linked to ETH Competence Framework in a few areas.	Competencies are clearly aligned to ETH Competence Framework.	Competencies are thoroughly aligned and linked to ETH Competence Framework.

Special topics

	Not fulfilled at all	Mostly not fulfilled	Fulfilled to some extent	Mostly fulfilled	Fulfilled in an exemplary way
Where and how are ethical aspects considered in your degree program?	Ethical aspects are not mentioned in the QP.	Ethical aspects are briefly mentioned but not integrated.	Ethical aspects are present but need stronger integration.	Ethical aspects are well considered and integrated.	Ethical aspects are well integrated into all aspects of the program.
Where and how are aspects of sustainability considered in your degree program?	Sustainability aspects are not considered.	Sustainability is mentioned but not integrated.	Sustainability is considered but need stronger integration.	Sustainability is well integrated across multiple aspects.	Sustainability is deeply embedded and integrated throughout the program.
Where and how are computational competences considered in your degree program?	Computational competences are not considered.	Computational competences are mentioned but not integrated.	Computational competences are somewhat integrated into the program.	Computational competences are well integrated into the program.	Computational competences are fully embedded and aligned with program needs. Relevant stakeholders have been consulted.

Language and formulation

	Not fulfilled at all	Mostly not fulfilled	Fulfilled to some extent	Mostly fulfilled	Fulfilled in an exemplary way
The competences in all parts of the QP are formulated using active verbs and specific outcomes.	Outcomes are vague or verbs are passive.	Active verbs are largely missing, and outcomes lack specificity.	Active verbs are partly used and some outcomes are specific.	Active verbs and specific outcomes are used throughout.	All outcomes are specific, measurable, and use active verbs.
Competence levels are defined and formulated according to learning taxonomy levels.	Competence levels are missing completely.	Some competence levels are described but lack levels appropriate to degree program.	Competence levels are used sporadically but lack coherence across program.	Competence levels are clearly defined and formulated.	Competence levels are exemplary and fully aligned with taxonomy levels.

Critical reflection and dissemination

	Not fulfilled at all	Mostly not fulfilled	Fulfilled to some extent	Mostly fulfilled	Fulfilled in an exemplary way
QP for your degree program is future-ready.	The profile is outdated or irrelevant to current/future needs.	The profile is largely not future-ready and requires an update.	Many aspects are future-ready, but some areas need an update.	The profile is future-ready with only minor adjustments needed.	The profile is future-proof and exemplary in all regards.
All relevant people who are involved in the degree program are familiar with the QP.	Only study director and study coordinator (and maybe LSP) is aware of the QP.	Only few people involved in the degree program are aware of the QP.	Most relevant people are aware of the QP.	All relevant people are familiar with the QP.	All relevant people are familiar with the Qualification Profile and were involved in its development.
All described competences are covered within the core curriculum (mandatory courses).	This was never checked for.	Some competencies are covered but others are missing in the core curriculum.	Most competencies are covered in the core curriculum.	Almost all competencies are covered within the core curriculum.	A curriculum mapping has been done and all competencies are comprehensively covered within the core curriculum.