



**Principles of the Curricula for
Degree-awarding Education (Bachelor's Degree, Master's Degree)
at Jamk University of Applied Sciences
2023**

**Approved on 28 April 2022
by the Jamk University of Applied Sciences Student Affairs Board**

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1 Introduction

The principles of the curricula 2023 apply to all degree programmes at Jamk University of Applied Sciences.

According to its vision, Jamk is a reinvented institute of higher education internationally recognised for reinventing education and developing competitiveness. Jamk's curricula and broad-based education contribute to implementing this vision. The reinvented institute of higher education is a digital, virtual, versatile and entrepreneurial international community that facilitates lifelong learning. Learning is based on a student-centred approach, learning ecosystems and the application of state-of-the-art technology. Learning is also diverse and work-related; it activates students and includes study modules smaller than degrees. The renewed university of applied sciences takes care of people's skills throughout their career and is a pioneer of continuous learning. (Jamk strategy 2020–2030.)

2 Basics of curricular work

The competence-based and modular curricula for degree-awarding education are based on the basic mission of education in accordance with the legislation on universities of applied sciences, the Bologna Declaration, the Government Programme as well as regional and national foresight information on competence needs.

According to the Universities of Applied Sciences Act, higher education provided at Jamk is based on the requirements of the world of work and its development and on the premises of academic research and academic and artistic education. The objective is to support the professional growth of students towards professional expert tasks (Section 4 of the Universities of Applied Sciences Act, 932/2014).

Jamk University of Applied Sciences applies both the competence level descriptors according to the European Qualification Framework (EQF) and the Act (93/2017) and Decree (120/2017) on the National Qualifications Framework (NQF). The corresponding EQF/NQF level to the competence of a bachelor's degree is 6 and of a master's degree 7. (Appendix 1). The curricula are described according to the European Credit Transfer and Accumulation System (ECTS).

The planning of education is based on the objectives set out in the contract between the Ministry of Education and Culture and Jamk University of Applied Sciences for 2021–2024 and the policies of the vision for the Finnish higher education and research in 2030. The objective is to further strengthen the education's ability to support employment and the renewal and accessibility of working life. The education is committed to Arene's (2019) programme for sustainable development and responsibility, the UN Sustainable Development Goals and the responsible conduct of research (TENK 2012). The education planning takes into account the possibilities of deepening cooperation among European higher education institutions (Strasbourg, 18 January 2022 COM (2022) 16 final; Policies to promote internationalisation in higher education and research 2017–2025). Furthermore, the education takes into account the policies concerning the accreditation of international degree programmes and the development of working life and the region, the Degree Regulations, and the quality system. The education is carried out according to the pedagogical and ethical principles and the principles of guidance confirmed by the Jamk University of Applied Sciences' Student Affairs Board.

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The curricula are internationally comparable, student-oriented and flexible, offering not only degree-awarding education but also opportunities for continuous learning and updating of one's competence.

The curricular work is carried out in collaboration with stakeholders, such as students, working life representatives, EduFutura partners, the Jyväskylä Educational Consortium Gradia and the University of Jyväskylä. The EduFutura cooperation enables versatile cross-institutional studies and flexible career paths for students, allowing them to utilise the studies offered by partner educational institutions as part of the personal learning plan (PLP). More extensive collaboration and cross-institutional studies between higher education institutions will be possible through studies offered by CampusOnline and, in the future, by Digivision 2030.

3 Competence-based approach in the curricula

3.1 Competence-based approach

Competence-based approach is the starting point for the curriculum. A competence-based curriculum supports the learning of the student. The student becomes aware of the competence required to become an expert. The common competences are described in the principles of the curriculum. The core competence achieved in the degree programme is in turn described in the curriculum of each respective degree programme. The education planning starts with the common competences of bachelor's degrees as well as the degree-specific expert core competences and defining them. In terms of degree programmes and competence modules, it is important to reach a consensus on the definition of competence, so that everyone included in the curricular work has a common view of the objectives and development of competence that are pursued through the curriculum and its practical implementation.

Competence refers to a broader combination of knowledge, skills and attitudes of an individual. The degree programme-specific competences describe the expert core competence that make up the student's professional expertise and the core of the degree. The core competence of the degree programme expands and deepens with complementary competence provided by elective studies.

The learning outcomes of the degree programme, study modules and courses are described as the intended learning outcomes. They describe what kind of knowledge, skills and attitudes the student will gain from completing the degree – what the student will know, understand and be able to do as a result of the learning process. In the competence-based curriculum, the planning of learning begins with the description of the degree and the learning outcomes, as illustrated in Figure 1. Next, the learning outcomes of the study modules and courses are described. The learning outcomes, the learning methods and environments and the assessment of competence are in line and mutually supportive. (Figure 1.)

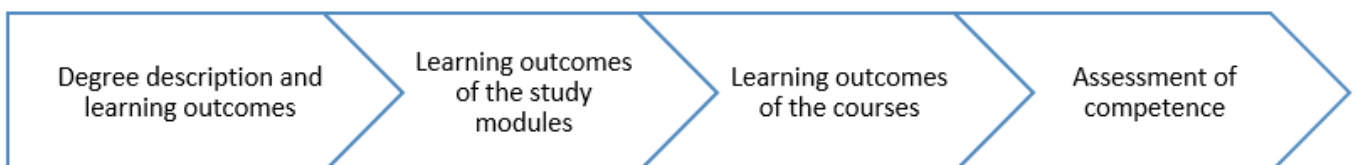


Figure 1. Logical progression of learning outcomes to the assessment of competence

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Figure 1 in text: First, the degree description and learning outcomes are drawn up. Next, the learning outcomes of the study modules are written, after which the study module is divided into courses and their learning outcomes are described. The assessment of competence is in line with the learning outcomes of the courses.

As the studies progress, competence is accumulated so that the learning outcomes set for the degree programme are achieved upon graduation, both in terms of the common competence and the degree-specific, expert core competence (Figure 2).



Figure 2. Accumulation of competence

Figure 2. Alternate text: As the studies progress, competence is accumulated in terms of both the common competence and the degree-specific, expert core competence. Upon graduation, the degree student achieves the learning outcomes set for the degree programme.

3.2 Common competences of the degrees

Jamk is committed to complying with Arene's (2022) recommendation on the shared competences of university of applied science degrees. These are described in Table 1 as common competences (in bachelor's and master's degrees), and they are achieved by every student who completes the degree. (Arene's recommendation on the shared competences of universities of applied sciences 2022, see the Links section.)

The common competences lay the foundation for higher education, operating in working life, collaboration and developing expertise. All studies in the bachelor's and master's degree programmes at Jamk University of Applied Sciences enable students to achieve these common competences.

The common competences of the degrees are (see Table 1):

1. Learning to learn
2. Operating in a workplace
3. Ethics
4. Sustainable development

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5. Internationalisation and multiculturalism
6. Proactive development

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Table 1. Common competences of bachelor's degrees (EQF/NQF 6) and master's degrees (EQF/NQF 7) (Arene's recommendation 2022)

Common competences	Bachelor's degree (NQF/EQF6)	Master's degree (NQF/EQF7)
<p>1. Learning to learn</p>	<p>The graduating student recognises the strengths and development areas of their competence and learning methods, and they utilise the opportunities communities and digitalisation provide in their learning.</p> <ul style="list-style-type: none"> - Assesses and develops their competence and learning methods in different learning environments. - Is able to acquire, critically assess and appropriately apply the national and international knowledge base and practices of their field. - Also takes responsibility for group learning and sharing what has been learned. 	<p>The graduating student promotes their own and their community's continuous learning and competence development, drawing on knowledge from different fields and the opportunities of digitalisation.</p> <ul style="list-style-type: none"> - Is able to assess and develop their expertise diversely and in a goal-oriented manner at different stages of their career and life. - Is able to acquire, critically assess and produce information while taking into account the perspectives of different fields. - Is able to develop and manage goal-oriented, continuous learning in their community.
<p>2. Operating in a workplace</p>	<p>The graduating student has versatile working life skills and is able to operate in work communities of their field.</p> <ul style="list-style-type: none"> - Is able to work constructively in a work community and promotes their own and their work community's well-being. - Is able to act professionally in communication and interaction situations at a workplace. - Utilises the opportunities offered by technology and digitalisation in their work. 	<p>The graduating student is able to develop and manage their work community and reforms working life.</p> <ul style="list-style-type: none"> - Is able to develop and manage multidisciplinary teams and work communities. - Is able to develop the communication and interaction culture of work communities. - Is able to develop and manage the comprehensive well-being of a work community.

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Common competences	Bachelor's degree (NQF/EQF6)	Master's degree (NQF/EQF7)
	<ul style="list-style-type: none"> - Understands the complexity of changing working life and their own resilience in changing working life situations. - Has capabilities for an entrepreneurial approach. 	<ul style="list-style-type: none"> - Utilises the opportunities of technology and digitalisation in development and management. - Promotes the resilience of a work community.
3. Ethics	<p>The graduating student adheres to the ethical principles and values of their field of profession, taking the principles of equality and non-discrimination into account.</p> <ul style="list-style-type: none"> - Is able to take responsibility for their own actions and their consequences and reflects on them in accordance with the ethical principles and values of their field. - Takes others into account and promotes equality and non-discrimination. - Take into account the realisation of diversity and accessibility in their actions. - Understands the principles of responsible conduct of research and adheres to them. - Is able to influence society based on ethical values. 	<p>The graduating student assesses and promotes the realisation of ethical principles and values of their field of profession, taking equality and non-discrimination into account.</p> <ul style="list-style-type: none"> - Is able to promote ethically sustainable activities and the realisation of ethical reflection in their different operating environments. - Promotes the realisation of the ethical principles and values of their field. - Makes decisions taking individual, communal and societal perspectives into account. - Promotes the realisation of diversity and accessibility. - Implements the principles of responsible conduct of research and promotes their application in their work community. - Is able to manage societally influential activities based on ethical values.
4. Sustainable development	The graduating student is familiar with the principles of sustainable development, promotes their implementation	The graduating student develops and manages sustainable and responsible op-

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Common competences	Bachelor's degree (NQF/EQF6)	Master's degree (NQF/EQF7)
	<p>and acts responsibly as a professional and a member of society.</p> <ul style="list-style-type: none"> - Is able to use information related to their field in finding, implementing and establishing sustainable solutions and operating models. - Understands sustainability challenges, their interdependencies and the various aspects of issues and problems. 	<p>erating methods in their work and promotes sustainable change in their work community and society.</p> <ul style="list-style-type: none"> - Is able to apply the knowledge and future visions of sustainable development comprehensively as a basis for sustainable solutions. - Is able to analyse and assess systemic dependencies of complex multidisciplinary problems and the different dimensions of solutions. - Is able to manage the search, implementation and establishment of sustainable solutions and operating models in their work community.
<p>5. Internationality and multiculturalism</p>	<p>The graduating student is able to operate in multicultural and international operating environments and networks.</p> <ul style="list-style-type: none"> - Is familiar with the impacts of their cultural background on their activities and is able to develop operating methods that take multiculturalism into account in their work community. - Is able to monitor and utilise the international development of their field in their work. - Is able to communicate internationally in their work tasks. 	<p>The graduating student is able to develop and manage multicultural and international operating environments and networks.</p> <ul style="list-style-type: none"> - Is able to develop operating methods that take multiculturalism into account in their work community. - Is able to anticipate the impacts and opportunities of global development and phenomena. - Is able to interact, communicate and develop activities internationally in their own field.
<p>6. Proactive development</p>	<p>The graduating student is able to develop solutions that anticipate the future of their own field, applying existing</p>	<p>The graduating student is able to manage the development of new solutions that anticipate the future and produces</p>

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Common competences	Bachelor's degree (NQF/EQF6)	Master's degree (NQF/EQF7)
	<p>knowledge and research and development methods.</p> <ul style="list-style-type: none"> – Solves problem situations creatively and reforms operating methods together with others. – Is able to work in projects in cooperation with actors of different fields. – Is able to apply existing knowledge in the field in development and utilises research and development methods. – Is able to seek customer-oriented, sustainable and economically viable solutions, anticipating the future of their field. 	<p>new information using different research and development methods.</p> <ul style="list-style-type: none"> – Produces new information and reforms operating methods, combining competence in different fields. - Is able to implement research, development and innovation projects and apply different research and development methods. - Is able to develop new customer-oriented, sustainable and economically viable solutions, anticipating the future. - Is able to analyse the current situation and anticipate the future of their field and changes in the operating environment.

3.3 Core competence of the degree programme

The core competence of bachelor's degrees is described as the professional core competence of the field by degree programme, and the core competence of master's degrees is described as the expert core competence of the field by degree programme. The core competences of bachelor's and master's degree programmes consist of extensive modules that make up the student's professional expertise and the core of the degree.

The core competence of the degree is based on foresight information and the competence needs of future working life. The description of core competence is prepared in collaboration with the working life, stakeholder networks and students. The degree-specific competence descriptions are also linked to national or international decrees or the competence requirements concerning accreditation. The accredited degree programmes comply with the common competences of degrees recommended by Arene and any possible skills required by the accreditation criteria.

3.4 Complementary competence

Complementary competence deepens and/or expands the student's core competence and enables the student to build an individual competence profile. The significance of complementary competence in degrees will increase with the transformation of working life and as the competence needed in working life changes more rapidly. According to the Universities of Applied Sciences Act (Section 8 a,

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19.12.2017/941), a student can build a large part of his/her degree from studies provided by another institution of higher education. This requires that cooperation between institutions of higher education has been agreed upon and that the studies have been added to the student's personal learning plan at Jamk.

Students can acquire complementary competence through optional professional studies and elective studies. Complementary competence may consist of transdisciplinary studies across different fields of study, common entrepreneurship studies, core competence courses offered as part of different degree programmes, courses offered by the student union JAMKO, studies that support student well-being, courses offered by the language centre, and studies completed elsewhere, such as courses offered by EduFutura and CampusOnline or those completed in higher education institutions abroad or as part of international student exchange.

Complementary competence can also be acquired in accordance with the personal learning plan by identifying and recognising previously acquired competence or during studies by means of studification of work or other activities. In this case, the competence level must correspond to the NQF/EQF level 6 in a bachelor's degree and the NQF/EQF level 7 in a master's degree and the learning outcomes of the studies in question.

The curricula of bachelor's degree programmes allow at least 10 ECTS credits' worth of complementary competence studies to be pursued as elective studies.

The curricula of master's degree programmes allow at least 5 ECTS credits' worth of complementary competence studies to be pursued as elective studies in 60 ECTS credit degree programmes and at least 20 ECTS credits in 90 ECTS credit degree programmes.

4 Modular structure of the curriculum

The modular curriculum allows individual study paths in both graduate programmes and continuous learning. The degree programme consists of competence-based modules, which in turn consist of courses. A study module can only contain one type of course: compulsory, optional or elective studies. Study modules are larger entities than individual courses. The recommended scope of a study module is at least 15 ECTS credits and that of a course is 5 ECTS credits in general. In the common courses at Jamk, the number of credits is at least 2 ECTS credits.

The student can achieve the learning outcomes of a study module by completing courses offered by Jamk or by demonstrating equivalent competence acquired elsewhere, earlier or during the studies, with various demonstrations. The purpose of the modules is to make it more flexible to utilise the competence acquired by the student as part of the degree, in which case the study modules are not only a tool for courses but also for the identification and recognition of competence. In other words, a module is needed when the student already has competence corresponding to the module's learning outcomes (identification and recognition of competence), in studification and in the provision of continuous learning. If the student has no need for the identification and recognition of competence acquired in other ways, the student will complete the Jamk courses included in the module according to his/her personal learning plan.

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The principles for the identification and recognition of competence and assessment at Jamk are described in more detail in the Degree Regulations and the practices can be found on the For Students pages (see the Links section).

A module in the curriculum

- is a coherent whole structured around a core theme or subject matter
- contains only one type of course: compulsory, optional or elective studies
- can be accredited or studied
- can be transdisciplinary
- can be a common EduFutura module
- can be an integral part of continuous learning offering, such as open studies or continuing education
- courses in a module may be spread over different terms or years
- learning outcomes are defined for the study modules for the identification and recognition of the competence of the entire module.

5 Common studies in the degree programmes

The common studies in all bachelor's and master's degree programmes at Jamk University of Applied Sciences contribute to laying the foundation for higher education, operating in working life, collaboration and developing expertise. The common studies are linked to the common competences of the degree programmes (see Table 1).

The following courses are included in the personal learning plan of **every UAS student**:

- Development as an Expert (5 cr)
- Swedish for Working Life (4 cr)
- English for Working Life (4 cr)
- Communication Skills (3 cr)
- ICT skills (3 cr)
- Research and Development (5 cr)
- Jamk Future Factory module 15 cr: Entrepreneurship (3 cr) and Jamk InnoFlash (2 cr) and Future Factory project (10 cr)

In addition to the studies described above, the personal learning plan of each bachelor's degree student includes practical training to promote professional skills (at least 30 cr). The Future Factory project (10 cr) and the thesis (15 cr) strengthen both the core competence of the degree and the common competence.

The Development as an Expert course (5 cr) develops self-management skills and includes looking after students' well-being and their resources. Additionally, all students have the opportunity to include studies related to student well-being in their studies.

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The personal learning plan of each master's degree student includes common studies in management and in research and development activities. Research-based Development (5 cr) is included as a compulsory course for every student.

6 Guidance and assessment

Throughout the entire study period, the flexible progress of studies is supported by diverse and systematic information, guidance and counselling services as well as by a personal learning plan (PLP) based on continuous enhancement-led evaluation. The services that support students and studying are described on the For Students pages and in the pedagogical principles and principles of guidance (see the Links section).

The objective of Jamk's study guidance is to provide the student with guidance that meets his/her needs in order to complete the degree within the target time. The goal is a healthy professional who will be employed in a position that corresponds to his/her education. Every student has the right to study guidance throughout his/her studies. Every student is, however, also obliged to take responsibility for the progress of his/her studies and participate in study guidance. Jamk's guidance system and the involved actors are described in a separate document that can be found on the For Students pages (see the Links section).

The PLP of students is based on the objectives of competence development and his/her career vision. The student is entitled to both personal and group guidance on his/her choices from the career tutors. The student is also obligated to draw up a PLP in Peppi in accordance with the guidelines. The PLP is based on the structure of studies described in the curriculum of the year of admission. The student updates the PLP during his/her studies, which enables cross-institutional studies and studies abroad. The student also discusses the PLP and the progress of his/her studies with a career tutor at least once an academic year. Furthermore, the career tutor checks and approves the student's PLP in Peppi at least once an academic year.

A student whose studies are delayed from the standard study period, or who transfers to Jamk from another higher education institution, shall agree on the structure of his/her studies with the Head of Department/Institute Director or a person appointed by him/her when the personal study plan is created or revised. If a student's personal study plan cannot be implemented due to changes in the course supply or delayed studies, the student must submit his/her PLP to the Head of Department/Institute Director or a person appointed by him/her for review and approval. The Head of Department/Institute Director must ensure that the student receives adequate support and guidance to complete his or her studies.

The studies begin with the preparation of a personal learning plan. As part of the preparation, the identification and recognition of competence acquired by the student and the studification of work or other activities are discussed. The principles and practices for the identification and recognition of competence are described in more detail in the Degree Regulations (section 17) (see the Links section).

The assessment of competence is qualitative and based on set criteria and learning outcomes, and self-evaluation by the student plays an important part in the process. The principles and practices for the assessment of study attainments are described in more detail in the Degree Regulations (section 21)

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(see the Links section). The competence-based assessment criteria for courses are described in the course descriptions and the assessment methods in the implementation descriptions of the courses.

7 Preparation of the curriculum

The starting point for the planning of the degree programme is to support the student's learning process, which has been taken into account in the planning of the study modules and in structuring the assessment. The curricula are prepared in accordance with the ECTS principles.

Each degree programme supports the implementation of the goals defined in Jamk's strategy 2020–2030 and in the contract between the Ministry of Education and Culture and Jamk University of Applied Sciences for 2021–2024 in its own operating environment and stakeholder work. The procedures defined in the Jamk Process and Quality Manual are followed in the preparation and implementation of the degree programme curriculum.

The curriculum of a degree programme (Peppi) describes: a) key learning outcomes: what competence the graduate will achieve, (b) education content and professional growth and know-how: how the professional growth is expressed and assessed as the learning outcomes of the student, c) flexible studies, d) working life oriented learning, e) career opportunities and employment, f) qualifications, g) further studies, h) education planning: how the regional and national foresight information has been utilized in the planning of the education and how the collaboration with the world of work, students and other stakeholders has been carried out, and i) contact information: who is in charge of the degree programme.

The structure, scope, planned schedules and competences achieved during the education are described in more detail in Peppi and can be found on the Curricula page (Curricula, see the Links section). With the planning of the academic year, the implementation of each course is described in more detail, specifying, among other things, the teaching methods and guidance, working life connections, internationalisation, learning assignments and student workload, content scheduling, most significant learning materials for the development of competence, alternative methods of implementation as well as assessment and implementation methods. The "Toteutuksen osat" (Implementation parts) section is generally not used in the implementation description in Peppi. Instead, the possibilities of learning analytics in the virtual learning environment (Moodle) are utilised to follow the progress of studies.

The final feedback of the course is collected in the student administration system (Peppi's course feedback system or OJP). Interim feedback (mid-term or continuous) has been found to be a good practice, and it is also recommended to be collected through the course feedback system of Peppi. The teacher is expected give a response to the feedback from students (a counter feedback).

Links

[Universities of Applied Sciences Act \(932/2014\)](#) (finlex.fi)

[Arene's recommendation on the shared competences of universities of applied sciences 2022](#) (arene.fi)

[For Students pages](#) (Jamk.fi)

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[Pedagogical and Ethical Principles of Jamk](#) (Jamk.fi)

[Degree Regulations of Jamk](#) (Jamk.fi)

[Finnish National Agency for Education. Competence level descriptors in the Qualification Frameworks](#) (pdf)

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Appendices

Appendix 1. Competence levels in the Qualification Frameworks

Finnish National Agency for Education. Competence level descriptors in the Qualification Frameworks (see the Links section)

Appendix table 1. Competence level descriptors in the Qualification Frameworks at level 6

Level 6	Finnish National Qualifications Framework (NQF6) Descriptors	European Qualifications Framework (EQF6) Descriptors
<p>Bachelor's degrees (Universities of applied sciences)</p> <p>Bachelor's degrees (Universities)</p>	<p>Has a good command of comprehensive and advanced knowledge of his/her field, involving a critical understanding and appraisal of theories, key concepts, methods and principles.</p> <p>Understands the extent and boundaries of professional functions and/or disciplines.</p> <p>Has advanced cognitive and practical skills, demonstrating mastery of the issues and the ability to apply knowledge and find creative solutions and applications required in a specialised professional, scientific or artistic field to solve complex or unpredictable problems.</p> <p>Works independently in expert tasks of the field and in international co-operation or as an entrepreneur.</p> <p>Manages complex professional activities or projects.</p> <p>Can make decisions in unpredictable operating environments. In addition to evaluating and developing his/her</p>	<p>Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles.</p> <p>Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study.</p> <p>Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts.</p> <p>Take responsibility for managing professional development of individuals and groups.</p> <p>The framework for qualifications of the European Higher Education Area</p> <p>Qualifications that signify completion of the first cycle are awarded to students who:</p> <p>have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that</p>

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Level 6	Finnish National Qualifications Framework (NQF6) Descriptors	European Qualifications Framework (EQF6) Descriptors
	<p>own competence, he/she takes responsibility for the development of individuals and groups.</p> <p>Has the ability for lifelong learning.</p> <p>Considers communal and ethical aspects when dealing with different people in learning and working communities and other groups and networks.</p> <p>Communicates to a good standard verbally and in writing in his/her mother tongue both to audiences in the field and outside it.</p> <p>Communicates and interacts in the second national language and is capable of international communication and interaction in his/her field in at least one foreign language.</p>	<p>will be informed by knowledge of the forefront of their field of study.</p> <p>can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study.</p> <p>have the ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical issues.</p> <p>can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.</p> <p>have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.</p>

Source: Finnish National Agency for Education. Competence level descriptors in the Qualification Frameworks (see the Links section)

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Appendix table 2. Competence level descriptors in the Qualification Frameworks at level 7

Level 7	Finnish National Qualifications Framework (NQF7) Descriptors	European Qualifications Framework (EQF7) Descriptors
<p>Master's degrees (Universities of applied sciences)</p> <p>Master's degrees (Universities)</p>	<p>Understands comprehensive and highly specialised concepts, methods and knowledge corresponding to the specialised competence in his/her field, which are used as the basis for independent thinking and/or research.</p> <p>Understands issues that are at the interface between his/her field and different fields and evaluates them and new knowledge critically.</p> <p>Solves demanding problems, also creatively, in research and/or innovation, which develop new knowledge and procedures and applies and combines knowledge from various fields.</p> <p>Works independently in demanding expert tasks of the field and in international co-operation or as an entrepreneur.</p> <p>Manages and develops complex, unpredictable and new strategic approaches.</p> <p>Manages things and/or people.</p> <p>Evaluates the activities of individuals and groups.</p> <p>Accumulates knowledge and practices in his/her field and/or takes responsibility for the development of others.</p>	<p>Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research.</p> <p>Critical awareness of knowledge issues in a field and at the interface between different fields.</p> <p>Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields.</p> <p>Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches.</p> <p>Take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams.</p> <p>The framework for qualifications of the European Higher Education Area</p> <p>Qualifications that signify completion of the second cycle are awarded to students who:</p> <p>have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with the first cycle, and that provides a basis or opportunity for</p>

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Level 7	Finnish National Qualifications Framework (NQF7) Descriptors	European Qualifications Framework (EQF7) Descriptors
	<p>Has the ability for lifelong learning.</p> <p>Considers communal and ethical aspects when dealing with different people in learning and working communities and other groups and networks.</p> <p>Communicates to a good standard verbally and in writing in his/her mother tongue both to audiences in the field and outside it.</p> <p>Communicates and interacts in the second national language and is capable of demanding international communication and interaction in his/her field in at least one foreign language.</p>	<p>originality in developing and/or applying ideas, often within a research context.</p> <p>can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.</p> <p>have the ability to integrate knowledge and handle complexity, and formulate judgments with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments.</p> <p>can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously.</p> <p>have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.</p>