DIPLOMA SUPPLEMENT

This Diploma Supplement follows the model developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of this supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates, etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free of any value-judgements, equivalence statements or suggestions about recognition. Information should be provided in all eight sections. Where information is not provided, a reason should be given.

1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

1.1 Last name(s)

xxxxxx

1.2 First name(s)

xxxxx

1.3 Date of birth (dd/mm/yyyy)

xx/xx/xxxx

1.4 Student identification number or code (if available)

xxxxxxxx

2. INFORMATION IDENTIFYING THE QUALIFICATION

2.1 Name of qualification and (if applicable) title conferred (in original language)

Tekniikan kandidaatti
Bachelor of Science (Technology)

2.2 Main field(s) of study for the qualification

Fields of education (Ministry of Education and Culture), Information and Communication Technologies (ICTs)

2.3 Name and status of awarding institution (in original language)

Lappeenrannan-Lahden teknillinen yliopisto LUT (Lappeenranta-Lahti University of Technology LUT) The quality assurance system of the university has passed the audit conducted by the Finnish Education Evaluation Centre. Further information: www.karvi.fi

2.4 Name and status of institution (if different from 2.3) administering studies (in original language)

Not applicable

2.5 Language(s) of instruction/examination

Finnish

3. INFORMATION ON THE LEVEL OF THE QUALIFICATION

3.1 Level of qualification

First-cycle education degree (bachelor level).
The degree is on level 6 in the National Framework for Qualifications and Other Competence Modules (FiNQF) and the European Qualifications Framework.

3.2 Official duration of programme in credits and/or years

The degree consists of at least 180 credits, 3 years of full-time study.
Finnish credits are fully compatible with the ECTS.

3.3 Access requirements

The Finnish Matriculation Examination gives general eligibility for higher education. General eligibility is also given by upper secondary vocational qualifications, further vocational qualifications and specialist vocational qualifications.
Foreign qualifications which in the awarding country give eligibility for higher education studies, give general eligibility for higher education also in Finland. There is a numerus clausus, i.e. restricted entry, to all fields of study.

4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

4.1 Mode of study

Full-time

4.2 Programme learning outcomes

The studies leading to the degree provide students with 1) knowledge of the basics of major and minor subjects or equivalent modules or studies included in the degree programme, as well as the competencies required to follow the development of the field, 2) a capacity for scientific thinking and the application of scientific working methods, 3) knowledge and skills required in education leading to the higher university degree and in life-long learning, 4) the ability to apply their knowledge and skills in the world of work, and 5) sufficient communication and language skills. The education is based on scientific research and practices in the relevant professional field.
The intended learning outcomes for the programme has been stated as follows:
After completing the Bachelor's programme in Software Engineering the graduate will be able to 1) apply software engineering theory, principles, tools and processes, as well as the theory and principles of computer science and mathematics, to development of complex, scalable software systems, 2) demonstrate software engineering application domain knowledge and principles of selecting and the use of software matrices, 3) understand the dynamics of how teams develop and function, productively participate on software project with heterogeneous teams, 4) interact professionally with colleagues or clients and overcome challenges that arise from geographic distance, cultural differences, and multiple

languages in the context of computing and software engineering, 5) communicate effectively both verbally and in writing, produce documents, and work as a part of a project team using both the domestic languages as well as English, 6) recognize the need for, and engage in, lifelong learning, 7) describe, design and solve problems by programming and using software engineering techniques and experimentation, 8) apply technical skills in different application domains taking into account technical, social, an economical constraints, 9) elicit, analyze and specify software requirements through a productive working relationship with project stakeholders, 10) apply appropriate codes of ethics and professional conduct to the solution of software engineering problems and 11) understand IT related business, entrepreneurship and innovation models.

4.3 Programme details (e.g. modules or units studied), and the individual grades/marks/credits obtained

See transcript of records for all courses taken and included in the degree. Also the grades obtained per course and the overall grade of the graduate are given in transcript of records.

4.4 Grading scheme and, if available, grade distribution guidance

5 = Excellent, 4 = Very good, 3 = Good, 2 = Satisfactory, 1 = Passable, 0 = Fail, Hyv. = Pass
See the enclosed attachment ECTS Grading Table for the overall grade distribution.

4.5 Overall classification of the qualification (in original language)

Not applicable

5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study

Eligible for second-cycle higher education studies. The admissions decisions are made in the receiving higher education institution.

5.2 Access to a regulated profession (if applicable)

6. ADDITIONAL INFORMATION

6.1 Additional information

Bachelor's Degree Programme in Software Engineering is an EUR-ACE- and ASIIN e. V.- accredited degree programme. EUR-ACE and ASIIN are international quality labels for Bachelor's and Master's level degree programmes in engineering, informatics, natural sciences and mathematics.

6.2 Further information sources

- www.lut.fi, Lappeenranta-Lahti University of Technology LUT
- www.minedu.fi, Ministry of Education and Culture
- www.oph.fi/recognition, www.oph.fi/qualificationsframework

The Finnish National Agency of Education, the ENIC: European Network of Information Centres in the European Region, and the NARIC: National Academic Recognition Information Centres in the European Union, and the National Coordination Point for the European Qualifications Framework (EQF)
- www.karvi.fi, The Finnish Education Evaluation Centre (FINEEC)
- www.asiin.de/en/quality-management/accreditation-degree-programmes.html

7. CERTIFICATION OF THE SUPPLEMENT

Date (dd/mm/yyyy)

xx/xx/xxxx

Official stamp or seal

Signature

JAANA SANDSTRÖM
Vice Rector

8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

The Finnish education system consists of pre-primary and basic education, general and vocational upper secondary education, higher education and adult education. The compulsory schooling consists of one-year pre-primary education for 6-year-olds and nine-year basic education for children aged 7-16.

Post-compulsory education is given by general upper secondary schools and vocational institutions. The general upper secondary school provides a three-year general education curriculum, at the end of which the pupil takes the national Matriculation examination (*ylioppilastutkinto/studentexamen*). Vocational institutions provide three-year programmes, which lead to upper secondary vocational qualifications (*ammatillinen perustutkinto/yrkesinriktad grundexamen*).

General eligibility for higher education is given by the Matriculation examination, upper secondary vocational qualifications, further vocational qualifications and specialist vocational qualifications.

A foreign qualification that gives eligibility for higher education in the system the qualification belongs to, gives general eligibility for higher education also in Finland.

The Finnish higher education system comprises universities (*yliopisto/universitet*) and universities of applied sciences (*ammattikorkeakoulu, AMK/yrkeshögskola, YH*). The universities engage both in education and research and have the right to award doctorates. The universities of applied sciences are

multi-field institutions of professional higher education. Universities of applied sciences engage in applied research and development.

First and second cycle higher education studies are measured in credits (*opintopiste/studiepoäng*). Study courses are quantified according to the work load required. One year of full-time study is equivalent to 1600 hours of student work on average and is defined as 60 credits. The credit system complies with the European Credit Transfer and Accumulation System (ECTS).

There are eight levels in the National Framework for Qualifications and Other Competence Modules (the Finnish National Qualifications Framework). Higher education qualifications in Finland are referenced at levels 6 – 8 both in the National Qualifications Framework as well as in the European Qualifications Framework.

University degrees

The Government Decree on University Degrees and Specialisation Studies (794/2004 including amendments) defines the objectives, extent and overall structure of degrees. The universities decide on the detailed contents and structure of the degrees they award. They also decide on their curricula and forms of instruction.

First cycle university degree

The first cycle university degree consists of at least 180 credits (three years of full-time study). The degree is called kandidaatti/kandidat in all fields of study except for Law (*oikeusnotaari/rättsnotarie*) and Pharmacy (*farmaseutti/farmaceut*). The determined English translation for all of these degrees is Bachelor's degree, the most common degree titles being Bachelor of Arts and Bachelor of Science.

Studies leading to the degree provide the student with: (1) knowledge of the fundamentals of the major and minor subjects or corresponding study entities or studies included in the degree programme and the prerequisites for following developments in the field, (2) knowledge and skills needed for scientific thinking and the use of scientific methods or knowledge and skills needed for artistic work, (3) knowledge and skills needed for studies leading to a higher university degree and for life- long learning, (4) a capacity for applying the acquired knowledge and skills to work and in international co-operation, and (5) adequate language and communication skills for working in one's own field and for international work and co-operation.

Studies leading to the degree may include: basic and intermediate studies; language and communication studies, interdisciplinary programmes, and other studies and work practice for professional development. The degree includes a Bachelor's thesis (6 – 10 credits).

Second cycle university degree

The second cycle university degree consists of at least 120 credits (two years of full-time study). The degree is usually called *maisteri/magister*. Other second cycle degree titles are *diplomi-insinööri/diplomingenjör* (Technology), *proviisori/provisor* (Pharmacy) and *arkkitehti/arkitekt* (Architecture). The determined English translation for all these degrees is Master's degree, the most common degree titles being Master of Arts and Master of Science. The second cycle university degree title in the fields of Medicine, Veterinary Medicine and Dentistry is *lisensiaatti/licentiat*, the English title being Licentiate. The admission requirement for the second cycle university degree is a first cycle degree.

In the fields of Medicine and Dentistry the university may arrange the education leading to the second cycle university degree without including a first cycle university degree in the education. In Medicine the degree consists of 360 credits (six years of full-time study) and in Dentistry the degree consists of 330 credits (five and a half years of full-time study).

Studies leading to the second cycle university degree provide the student with: (1) good overall knowledge of the major subject or a corresponding entity and conversance with the fundamentals of the minor subject or good knowledge of the advanced studies included in the degree programme; (2) knowledge and skills needed to apply scientific knowledge and scientific methods or knowledge and skills needed for independent and demanding artistic work; (3) knowledge and skills needed for independently operating as an expert and developer of the field and for international co-operation; (4) knowledge and skills needed for scientific or artistic postgraduate education and for life-long learning; and (5) good language and communication skills for working in one's own field and for international work and co-operation.

The studies leading to the second cycle university degree may include: basic and intermediate studies and advanced studies, language and communication studies; interdisciplinary studies, other studies, and internship improving expertise. The degree includes a Master's thesis (20 – 40 credits).

Doctoral degrees

Students can apply for doctoral studies after the completion of a second cycle degree. The aim of doctoral studies is to provide student with an in-depth knowledge of their field of research and capabilities to produce novel scientific knowledge independently.

The degree of *lisensiaatti/licentiat* (Licentiate) may be taken before the Doctor's degree and in general it takes two years of full-time study to complete.

The Doctor's degree takes approximately four years to complete after a second cycle degree and two years when completed after a Licentiate's degree. A student who has been admitted to complete the Doctor's degree must complete a given amount of studies, show independent and critical thinking in the field of research and write a Doctor's dissertation and defend it in public.

University of applied sciences degrees

The universities of applied sciences Act (932/2014 including amendments) defines the objectives, extent and overall structure of universities of applied sciences degrees. The universities of applied sciences decide on the detailed contents and structure of the degrees they award. They also decide on their curricula and forms of instruction.

First cycle university of applied sciences degrees

The first cycle university of applied sciences degree consists of 180, 210, 240 or 270 credits (three to four and a half years of full-time study) depending on the field of study. The first cycle university of applied sciences degree is called *ammattikorkeakoulututkinto/yrkeshögskoleexamen*. The determined English translation for the degree is Bachelor's degree. The degree titles indicate the field of study, e.g. Bachelor of Engineering and Bachelor of Health Care.

Studies leading to the degree provide the student with: (1) broad overall knowledge and skills with relevant theoretical background for working as expert of the field, (2) knowledge and skills needed for following and advancing developments in the field, (3) knowledge and skills needed for professional development

and life-long learning, and (4) adequate language and communication skills for working in one's own field and for international work and co-operation.

The first cycle university of applied sciences degree comprises basic and professional studies, elective studies, a practical training period, and a final project.

The second cycle university of applied sciences degrees

The second cycle university of applied sciences degree consists of 60 or 90 credits (a year or a year and a half of full-time study). The degree is called *ylempi ammattikorkeakoulututkinto/högre yrkeshögskoleexamen*. The determined English translation for the degree is Master's degree. The degree titles indicate the field of study, e.g. Master of Culture and Arts or Master of Business Administration. Eligibility for second cycle university of applied sciences degrees is given by a relevant first cycle degree together with at least three years of relevant work or artistic experience.

Studies leading to the degree provide the student with: (1) broad and advanced knowledge and skills for developing the professional field as well as the theoretical skills for working in demanding expert and leadership positions in the field, (2) profound understanding of the field, its relation to working life and society at large as well as the knowledge and skills needed for following and analysing both theoretical and professional developments in the field, (3) capacity for life-long learning and continuous development of one's own expertise , and (4) good language and communication skills for working in one's own field and for international work and co-operation.

The second cycle university of applied sciences degree comprises advanced professional studies, elective studies, and a final project.