SDU

Emil Sebastian Rømer

CPR-nr. 290892-2207

har den *has on the* 19. juni 2017 bestået *passed*

Civilingeniøruddannelsen i software engineering

Master's Programme (MSc) in Engineering (Software Engineering)

og har dermed ret til at betegne sig

and has thus been awarded the title of

Civilingeniør, cand.polyt. i software engineering

Master of Science (MSc) in Engineering (Software Engineering)

Syddansk Universitet, den 26. juni 2017

Henrik Bindslev

Dekan

Dean

Kun gyldig i original med universitetets prægestempel

This document is official only in the original, bearing the University's embossed stamp

Navn, *Name*
Emil Sebastian Rømer
CPR-nr *Civil reg. No*
290892-2207

	Karakter/Mark/Grade 7-skala	13-skala	ECTS	ECTS Points	Vægt Credit factor

CIVILINGENIØRUDDANNELSEN I SOFTWARE ENGINEERING

MASTER OF SCIENCE PROGRAMME IN ENGINEERING - SOFTWARE ENGINEERING

OBLIGATORISKE FAG

COMPULSORY COURSES

VIDENSKABELIGE ARBEJDSMETODER SCIENTIFIC METHODS Rapport, intern censur *Written report, Internal examiner*	**12**		A	5,0
DATAVIDENSKAB DATA SCIENCE Mundtlig på engelsk, ekstern censur *Oral exam in English, External examiner*	**7**		C	5,0
ADVANCED SOFTWARE SYSTEM DESIGN AND TECHNOLOGIES Mundtlig på engelsk, intern censur *Oral exam in English, Internal examiner*	**12**		A	5,0
SOFTWARE-LIVSCYKLUS SOFTWARE LIFECYCLE Mundtlig på engelsk, ekstern censur *Oral exam in English, External examiner*	**12**		A	5,0
PROJEKT I AVANCERET SOFTWARE- SYSTEMDESIGN OG -TEKNOLOGIER OG SOFTWARE LIVSCYKLUS PROJECT IN ADVANCED SOFTWARE SYSTEM DESIGN AND TECHNOLOGIES AND SOFTWARE LIFECYCLE Rapport på engelsk, intern censur *Written report in English, Internal examiner*	**Bestået** ***Passed***	Bestået *Passed*		5,0

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PROJEKT I VIDENSKABELIGE METODER OG DATAVIDENSKAB PROJECT IN SCIENTIFIC METHOD AND DATA SCIENCE	**Bestået** ***Passed***	Bestået *Passed*		5,0	
Rapport på engelsk, intern censur *Written report in English, Internal examiner*					
SOFTWARE CUSTOMIZATION	**12**		A	5,0	
Mundtlig, ekstern censur *Oral exam, External examiner*					
UBIQUITOUS COMPUTING	**10**		B	5,0	
Mundtlig, ekstern censur *Oral exam, External examiner*					
PROJECTS IN SOFTWARE CUSTOMIZATION AND UBIQUITOUS COMPUTING	**Bestået** ***Passed***	Bestået *Passed*		5,0	
Rapport på engelsk, intern censur *Written report in English, Internal examiner*					
INNOVATIVE SOFTWARE LØSNINGER INNOVATIVE SOFTWARE SOLUTIONS	**10**		B	15,0	
Mundtlig på engelsk, intern censur *Oral exam in English, Internal examiner*					
VALGFAG ELECTIVES					
DECISION SUPPORT SYSTEMS	**12**		A	5,0	
Mundtlig på engelsk, ekstern censur *Oral exam in English, External examiner*					
LEARNING ALGORITHMS IN ARTIFICIAL INTELLIGENCE	**12**		A	5,0	
Rapport og mundtlig på engelsk, ekstern censur *Written report and oral exam in English, External examiner*					

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VIRKSOMHEDSFORLØB IN-COMPANY PERIOD Rapport og mundtlig, intern censur *Written report and oral exam, Internal examiner*	**12**		A	15,0	
EMBEDDED SYSTEMS WITH LINUX SOFTWARE ASPECTS IN EMBEDDED SYSTEMS Mundtlig, intern censur *Oral exam, Internal examiner*	**7**		C	5,0	
SPECIALE THESIS					
MASTERS THESIS Decision support system til bygningsmanagement budget optimering; - En simullerings baseret tilgang til modellering af bygnings henfald og pris structure Specialeafhandling på engelsk, ekstern censur *Decision support system for building management budget optimization; - A simulation based approach for modeling building conditions and price sturctures* *MA thesis in English, External examiner*	**12**		A	30,0	

Adgangsgivende eksamen: Teknisk videnskabelig bachelor i Software Engineering

Entrance qualifications: Teknisk videnskabelig bachelor i Software Engineering

Studiet er normeret til 120 ECTS-point. Bemærk at den genererede sum af ECTS-point kan afvige fra den samlede sum på grund af afrunding.

The study is rated at 120 ECTS points. Please notice that the rounded value of ECTS points may differ from the actual value for a specific programme.

Syddansk Universitet, den 26. juni 2017

Helle Kastrup

Udskriftens rigtighed bekræftes
Registrar's Office

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Diploma Supplement

This Diploma Supplement model was developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the 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 from any value judgements, equivalence statements or suggestions about recognition. Information in all seven sections should be provided. Where information is not provided, an explanation should give the reason why.

1.Information Identifying the Holder of the Qualification

1.1 Family name(s): Rømer

1.2 Given name(s): Emil Sebastian

1.3 Date of birth: 29 August 1992

1.4 Civil registration number: 290892-2207

2. Information Identifying the Qualification

2.1 Name of qualification and title conferred

Master's Programme (MSc) in Engineering (Software Engineering) (Civilingeniøruddannelsen i software engineering)

2.2 Main fields of study for the qualification

Software Engineering

2.3 Name and status of awarding institution

Syddansk Universitet/University of Southern Denmark. The University of Southern Denmark is a state-recognised and state-financed higher education institution, regulated according to the Ministry of Science, Technology and Innovation University Act of May 28th 2003 plus amendments.

2.4 Name and status of institution administering the studies

Not applicable.

2.5 Language(s) of instruction/examination

Danish and English

3. Information on the Level of the Qualification

3.1 Level of qualification

Master's degree at NQF/EQF level 7 referring to Second Cycle in the Bologna QF.

3.2 Official length of programme

A 2-year full-time master´s degree programme equivalent to 120 ECTS points.

3.3 Access requirements

Acceptance to the Master Programme requires a completed Bachelor degree.

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4. Information on the Contents and Results Gained

4.1 Mode of study

Full-time study programme, equivalent of 120 ECTS points.

4.2 Programme Requirements

"The programme enables students to: - develop new software as well as to customise, integrate and further develop existing software in a way that considers scientific theories in the subject field, user-oriented and organisational aspects, software as an innovative element, and the impact of globalisation on software and software development.
- plan the investigation of the need for the software and identify requirements.
- develop and deliver quality software as project manager, through individual work and as part of a team.
- reconcile conflicting project objectives and find acceptable compromises with limitations such as costs, time, knowledge, existing systems, organisation and environment.
- enter into cooperation with people of different educational and cultural background.

The 2-year programme is concluded with a Master Thesis of 30 ECTS points. The Master Thesis is an independent experimental empirical and/or theoretical study of one or more problems associated with the core subjects of Software Engineering."

4.3 Programme details and the individual grades/marks/credits obtained

Please refer to the grade transcript in the diploma.

4.4 Grading scheme and, if available, grade distribution guidance

Please refer to the explanatory grading scale.

4.5 Overall classification of the qualification

Not applicable for Danish qualifications.

5. Information on the Function of the Qualification

5.1 Access to further study

A completed Master Degree at NQF/EQF Level 7 referring to second Cycle in the Bologna QF gives access to the Ph.D. programme within the field at NQF/EQF level 8 referring to third Cycle in the Bologna QF.

5.2 Professional status

The programme leading to the degree of Master of Science in Engineering qualifies students to fulfil vocational functions both nationally and internationally within their field of study and at the same time it gives students an insight into theoretical and experimental scientific methods and qualifies for participation in scientific innovation and development.

6. Additional Information

6.1 Additional information

Information in English on the University of Southern Denmark (study programmes, contents of the programmes, research, faculties and departments) is available at the University's website www.sdu.dk or from the Registrar's Office, Campusvej 55, 5230 Odense M, phone +45 65 50 10 00, e-mail: studie@sdu.dk. General information on higher education in Denmark can be obtained from The Ministry of Science, Innovation and Higher Education at www.fivu.dk.

6.2 Further information sources

University of Southern Denmark is a research-based university founded in 1998. University of Southern Denmark is a merger of the former Odense University, Southern Denmark School of Business and Engineering, the South Jutland University Centre and Odense University College of Engineering. In 2007 the university merged with HHC Business School Centre. The university now enrols more than 20.000 full time students (bachelor and master programmes), more than 4500 part time students and more than 800 Ph.D. students. These figures do not include more than 1000 foreign students and exchange students. The university has a staff of approximately 3000 full-time equivalents. More than 1100 are researchers as well as part of the teaching staff.

The University of Southern Denmark has five faculties - the Faculty of Humanities, the Faculty of Business and Social Sciences, the Faculty of Health Sciences, the Faculty of Science and the Faculty of Engineering.

The University of Southern Denmark strives to be an international orientated university with a strong local commitment and is based in five local campuses in the region. The main campus is situated in Odense. The university has a long tradition for research based education at bachelor and master level, but also focuses on continuing education and offers a number of summer courses every year, presenting the latest research. In addition, the university has an Open University department offering part time courses, specially designed programmes and applied courses.

At the University of Southern Denmark basic as well as applied research are given high priority.

Funding comes from the Government, from Danish and international research funds and from co-operation with business corporations, local authorities and municipalities.

Information on the national higher education system can be found at The Ministry of Science, Innovation and Higher Education on www.fivu.dk. Further information at 'Danish Universities' on www.dkuni.dk. Other relevant information sources are 'The National Academic Recognition Information Centres and the European National Information Centre on Academic Recognition and Mobility (ENIC/NARIC) on www.enic-naric.net.

7. Certification of the Supplement

University of Southern Denmark, 26 June 2017

Hette Kastrup

Certified transcript
Registrar's Office

SDU

Name
Emil Sebastian Rømer
Civil reg. No.
290892-2207

Qualification profile for:

Master's Programme (MSc) in Engineering (Software Engineering)

The Master of Science in Engineering can, on a technical-scientific basis, solve complex engineering tasks that necessitate knowledge of advanced theory and methods in the relevant field. Thus, the Master of Science in Engineering can perform more specialised functions, including participation in scientific development work. Moreover, the education qualifies for PhD studies.

Master Degree in Software Engineering

The objective of the MSc in Engineering (Software Engineering) is to, on a scientific basis, educate engineers who can independently take responsibility for and contribute to the development of new software as well as to the customisation, integration and further development of existing software in a way that considers scientific theories in the subject field, user-oriented and organisational aspects, software as an innovative element, and the impact of globalisation on software and software development (and vice versa).
The graduate must be able to independently take responsibility for and participate in the investigation of the need for the software, identification of requirements, analysis, software design, interaction design, programming and testing, as well as project management, change and configuration management, and quality management.
The graduate must be able to work systematically with large and complex software systems to control functionality (incl. security), life cycle, and software qualities important to operations (incl. usability), software development and software maintenance.
The graduate must be able to organise a well-defined process resulting in a software product with the right qualities, to the right price and at the right time. The graduate must be able to develop and deliver quality software as project manager, through individual work and as part of a team. Moreover, he or she must be able to reconcile conflicting project objectives and find acceptable compromises with limitations such as costs, time, knowledge, existing systems, organisation and environment.
The competencies characterising the MSc in Software Engineering are based on and improve the skills acquired on the bachelor programme in software engineering.

Syddansk Universitet, den 26. juni 2017

Helle Kastrup

Certified transcript
Registrar's Office

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