

Information Processing Science (MSc) 2021-2022 - MA2021TOLMAIST

Code

MA2021TOLMAIST

Validity

1.8.2021 -

Educational level

Master's Programmes (2 years)

ECTS credits

120

Duration (years)

2

Language

English

Specifications

Degree

Degree title

-

Programme

-

Major subject

-

Classification code

-

Type

-

Group

-

Tags

-

Person in charge

Henrik Hedberg

Organization unit

Faculty of Information Technology and Electrical Engineering

Description
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University level studies in Information Processing Science provide an excellent foundation to work in anywhere where information and communications technology is developed and applied. The field is becoming more international and continues to develop rapidly, and there is considerable demand for experts. Education focuses on software and information systems, as well as the areas of expertise and applications that deepen them. The skills relevant to working life, such as project work, written and oral communication, critical thinking and problem solving, are advanced at the same time. Minor subjects, such as statistics, mathematics, engineering, management, economics or psychology, are used to complement studies to desired application area.

After completing the Master of Science (MSc) degree, a student is able to

- apply existing and produce new knowledge in information processing science to the need of companies and other organisations,
- act as an independent expert in software and information system projects and manage them professionally,
- apply the typical research methods and select the most appropriate data collection and analysis methods to solve a specified research problem,
- develop working methods and practices in their field using a scientific approach, as well as
- communicate the results clearly and analytically following the scientific practice.

Further information

After Master's degree student is able to apply to the Doctoral Degree Programme.

Curriculum development and working life cooperation
Objectives
Structure

Code	Name	Credits
MA2021TOLMAIST	Information Processing Science (MSc) 2021-2022	100-140
MA2021TOLMAIST-1001		55
811371A	<i>Preparatory Course for MSc Studies</i>	5
813621S	<i>Research Methods</i>	5
813613S	<i>Master's Thesis</i>	30
813627S	<i>Master's Thesis Seminar</i>	2
817612S	<i>Research and Development Project</i>	10
817609S	<i>Project Seminar</i>	3
813607S	<i>IPS (TOL), Maturity Test for Master's Degree</i>	0
MA2021TOLMAIST-1002		30

MA2021TOLMAIST-1003 Software Engineering Orientation		30
811372A	Software Development, Maintenance and Operations	5
811373A	Professional Software Engineering Processes and Human Factors	5
811602S	Advanced Software Quality and Security	5
811603S	Software Platforms and Ecosystems	5
811604S	Software for Intelligent Systems and Artificial Intelligence (AI)	5
811605S	Software-Defined Products, Systems and Services	5
MA2021TOLMAIST-1004 Information Systems Orientation		30
812352A	Digitalisation and Innovation	5
812354A	Servitisation, Co-Creation and Business Development	5
812355A	User Experience (UX) Design and Management	5
817619S	Societal and Individual Impacts of Information Systems	5
817615S	Creating Domain Value with Data	5
817618S	Information Systems Strategy and Leadership	5
MA2021TOLMAIST-1005		10-30
MA2021TOLMAIST-1006		10
815663S	Software Engineering Research	5
811606S	Next Generation Software Engineering	5
MA2021TOLMAIST-1007		10
812650S	Advanced Topics in Digital Cultures and Design	5
812671S	User Experience (UX) and Usability Evaluation	5
MA2021TOLMAIST-1008		10
811607S	Persuasive Systems Design	5
812651S	ICT and Behaviour Change	5
MA2021TOLMAIST-1009		5-25
Optional courses		0-15
812649S	Advanced Research Methods	5
813320A	Business Intelligence: Applications and Projects	5
811330A	Project management	5
Optional courses with changing themes		0-25
811610S	Special Course in Information Processing Science 1.	5-10
813632S	Special Course in Information Processing Science 2	5
813633S	Special Course in Information Processing Science 3	5
813634S	Special Course in Information Processing Science 4	5
Optional courses that are not lectured		0-25
814336A	Small-Group Tutoring	1
814339A	Education training	2-5,5
814341A	Research experience	2-5,5
816630S	Scientific paper writing	1-3

814311A	Internship in ICT-duties	3-5
814601S	Work Experience in ICT responsibilities	5
814312A	Exchange in abroad	1-3
Recognition of Prior Learning (RPL / AHOT)		0-25
817381A	Studies in other Finnish Universities	0
817382A	Studies in Finnish Polytechnics	0
817390A	Other studies of information processing science	0
817380A	Foreign studies	60
814344A	Information Processing Science Activities and Competitions	1-10
030010Y	Activities in University and Student Organizations	1
030009M	Studies in Other Universities/Institutes	0-60