



Itä-Suomen ICT-polku

COURSE DATA

BASIC INFO

Name	Introduction to Computing		
Code	Savonia: ETX7400 Karelia: LTD6002 UEF: 3621250		
Name in Finnish	Johdatus tietojenkäsittelyyn		
Credits (ECTS)	5	Grading	0 - 5
Teaching period	1S		
Language	Finnish		
Type	Savonia: mandatory course Karelia: mandatory course UEF/TKT: mandatory course		



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COURSE DESCRIPTION

Objectives	<p>Student understands what computing is.</p> <p>Student knows different professional roles in Information Technology.</p> <p>Student knows what types of problems can be solved by means of computing.</p> <p>Student understands how information is presented, stored, and processed using computers.</p> <p>Student understands the responsibility and risks of IT professional.</p>
Content	<p>The role of computing and IT professional in society</p> <ul style="list-style-type: none">• What IT professionals do in different roles.• Software in different environments yesterday, today, and tomorrow (e.g., client-server, mobile devices, embedded systems, user interface devices) <p>How software works?</p> <ul style="list-style-type: none">• Information storage and presentation• The concept and use of algorithms• Programming as a concept <p>Networks, the Internet and Data Security</p> <p>Software engineering</p> <p>Software life cycle</p> <ul style="list-style-type: none">• Software quality• Users and usability <p>ICT service management</p> <p>Data management</p> <ul style="list-style-type: none">• Data modelling• Databases and data structures• Data mining <p>Intelligent systems</p> <ul style="list-style-type: none">• Finding patterns, deduction, robotics• Gamification <p>Computability</p> <ul style="list-style-type: none">• What can be solved algorithmically
Modes of study	Lectures, exercises, and exam
Study materials	<p>Announced at start of course.</p> <p>J. Glenn Brookshear: Computer Science: An Overview</p>
Teaching methods	Lectures 28h, exercises 14h, independent work
Prerequisites	
Other issues	