



## Itä-Suomen ICT-polku

### COURSE DATA

#### BASIC INFO

<b>Name</b>	Discrete Structures		
<b>Code</b>	Savonia: ETX7500 Karelia: LTD7002 UEF: 3621410		
<b>Name in Finnish</b>	Diskreetit rakenteet		
<b>Credits (ECTS)</b>	5	<b>Grading</b>	0 - 5
<b>Teaching period</b>	1S		
<b>Language</b>	Finnish		
<b>Type</b>	Savonia: elective course Karelia: elective course UEF/TKT: mandatory course		



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### DESCRIPTION

<b>Objectives</b>	After the course, the student knows basics of logical deduction and can use logical deduction tools, such as truth tables and Karnaugh maps. Student knows basics of predicate logic, basic operations of set theory, relation and function, and knows their connections to the propositional logic. Student can use induction proof method, knows basics of combinatorics and graph theory.
<b>Content</b>	Propositional logic, predicate logic, set theory, relations, functions, induction proof, combinatorics, graph theory
<b>Modes of study</b>	Two intermediate exams or final exam, Essay
<b>Study materials</b>	Lecture notes, lecture materials
<b>Teaching methods</b>	Lectures 32 h, excercises 14 h, Essay.
<b>Prerequisites</b>	-
<b>Other issues</b>	Assessment is based on the practical exercises and exam points.