

Preliminary syllabus for the academic year 2024-2025
Bachelor's Programme in Computer Science

Code	Course unit name	Scope (cr)	Teaching periods	Method of teaching	Teaching languages	Open to exchange students	Open university teaching	Open to students from other degree programmes
Basic Studies								
		-	-	-	-	-	-	-
TKT10002	Introduction to Programming	5 cr	1	Distance teaching (time-bound) or online teaching	Finnish	No	Yes	Yes
TKT10002	Introduction to Programming	5 cr	3	Distance teaching (time-bound) or online teaching	Finnish	No	Yes	Yes
TKT10003	Advanced Course in Programming	5 cr	2	Distance teaching (time-bound) or online teaching	Finnish	No	Yes	Yes
TKT10003	Advanced Course in Programming	5 cr	4	Distance teaching (time-bound) or online teaching	Finnish	No	Yes	Yes
TKT10002	Introduction to Programming	5 cr	1	Blended teaching	Svedish	No	Yes	Yes
TKT10003	Advanced Course in Programming	5 cr	2	Blended teaching	Svedish	No	Yes	Yes
TKT10004	Introduction to Databases	5 cr	1	Online teaching	Finnish	No	Yes	Yes
TKT10004	Introduction to Databases	5 cr	3	Online teaching	Finnish	No	Yes	Yes
TKT10004	Introduction to Databases	5 cr	May	Online teaching	Finnish	No	Yes	Yes
TKT10006	Computer and Internet	5 cr	1-2	Contact teaching	Finnish	No	No	Yes
TKT200011	Data Structures and Algorithms I	5 cr	1	Blended teaching	Finnish	No	Yes	Yes
TKT200011	Data Structures and Algorithms I	5 cr	3	Blended teaching	Finnish	No	Yes	Yes
Intermediate studies								
		-	-	-	-	-	-	-
TKT20005	Models of Computation	5 cr	1	Contact teaching	Finnish	No	Yes	No
TKT20006	Software Engineering	5 cr	2	Contact teaching	Finnish	No	Yes	No
TKT20007	Software Lab	10 cr	all year around	Contact teaching	Finnish	No	Yes	No
TKT200012	Data Structures and Algorithms II	5 cr	2	Online teaching	Finnish	No	Yes	Yes
TKT200012	Data Structures and Algorithms II	5 cr	4	Online teaching	Finnish	No	Yes	Yes
TKT20016	Computing platforms	5 cr	3	Contact teaching	Lectures in English, exercise groups in English and Finnish	Yes	Yes	Yes
TKT20019	Databases and Web Programming	5 cr	1	Online teaching	Finnish	No	No	Yes
TKT20019	Databases and Web Programming	5 cr	2	Online teaching	Finnish	No	No	Yes
TKT20019	Databases and Web Programming	5 cr	3	Online teaching	Finnish	No	No	Yes
TKT20019	Databases and Web Programming	5 cr	4	Online teaching	Finnish	No	No	Yes
TKT20019	Databases and Web Programming	5 cr	May-June	Online teaching	Finnish	No	No	Yes
TKT20019	Databases and Web Programming	5 cr	July-August	Online teaching	Finnish	No	No	Yes
TKT200091	Cyber Security Base: Introduction to Cyber Security	1 cr	all year around, excluding January	Online teaching	English	Yes	Yes	Yes
TKT200092	Cyber Security Base: Securing Software	3 cr	all year around, excluding January	Online teaching	English	Yes	Yes	Yes

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TKT200093	Cyber Security Base: Course Project I	1 cr	all year around, excluding January	Online teaching	English	Yes	Yes	Yes
TKT20015	Computing and Society	5 cr	1-2	Contact teaching	Finnish	No	No	Yes
TKT200151	Computing and Society: an introduction	2 cr	1-4	Online teaching	Finnish, English	Yes	Yes	Yes
TKT200152	Computing and Society: continuation course	3 cr	4	Online teaching	English	Yes	Yes	Yes
TKT20010	Algorithms and Artificial Intelligence Project	4 cr	1	Laboratory work	Finnish, English	Yes	No	Yes
TKT20010	Algorithms and Artificial Intelligence Project	4 cr	2	Blended teaching	Finnish, English	Yes	No	Yes
TKT20010	Algorithms and Artificial Intelligence Project	4 cr	3	Blended teaching	Finnish, English	Yes	No	Yes
TKT20010	Algorithms and Artificial Intelligence Project	4 cr	4	Blended teaching	Finnish, English	Yes	No	Yes
TKT20010	Algorithms and Artificial Intelligence Project	4 cr	May-June	Blended teaching	Finnish, English	Yes	No	Yes
TKT20010	Algorithms and Artificial Intelligence Project	4 cr	July-August	Blended teaching	Finnish, English	Yes	No	Yes
TKT20012	Data Communication Project	4 cr	May	Contact teaching	Finnish, English	No	No	No
TKT20018	Intermediate Studies Project: Software Development Methods	4 cr	2	Contact teaching	Finnish	No	Yes	Yes
TKT20018	Intermediate Studies Project: Software Development Methods	4 cr	4	Contact teaching	Finnish	No	Yes	Yes
TKT20013	Bachelor's Thesis	6 cr	1-2	Contact teaching	Finnish	No	No	No
TKT20013	Bachelor's Thesis	6 cr	3-4	Blended teaching	Finnish	No	No	No
Optional Intermediate studies		-	-	-	-	-	-	-
TKT21004	Computer Architecture	5 cr	4	Lectures	English	No	No	Yes
TKT21032	Competitive Programming Training 1	3 cr	all year around	Distance teaching	Finnish	No	No	Yes
TKT21033	Competitive Programming Training 2	2 cr	all year around	Distance teaching	Finnish	No	No	Yes
TKT21034	Competitive Programming Training 3	3 cr	all year around	Distance teaching	Finnish	No	No	Yes
TKT21035	Competitive Programming Training 4	2 cr	all year around	Distance teaching	Finnish	No	No	Yes
TKT21012	Algorithms for Solving Problems	10 cr	all year around	Distance teaching	Finnish	No	Yes	Yes
TKT21029	Functional Programming I	5 cr	all year around	Distance teaching	English	Yes	Yes	Yes
TKT21030	Functional Programming II	5 cr	all year around	Distance teaching	English	Yes	Yes	Yes
TKT21018	Elements of AI: Introduction to AI	2 cr	all year around	Online teaching	Finnish, Swedish, English	Yes	Yes	Yes
TKT210281	Elements of AI: Building AI - Intermediate	1 cr	all year around	Online teaching	English	Yes	Yes	Yes
TKT210282	Elements of AI: Building AI - Advanced	1 cr	all year around	Online teaching	English	Yes	Yes	Yes
TKT21031	Ethics of AI	2 cr	all year around	Online teaching	English	Yes	Yes	Yes
TKT21036	DevOps with Docker	1 cr	4	Distance teaching	English	Yes	Yes	Yes
TKT21037	DevOps with Docker: docker-compose	1 cr	4	Distance teaching	English	Yes	Yes	Yes
TKT21038	DevOps with Docker: security and optimization	1 cr	4	Distance teaching	English	Yes	Yes	Yes
TKT21003	Web-palvelinohjelmointi Ruby on Rails	5 cr	summer, 1-2	Distance teaching	Finnish, English	Yes	Yes	Yes
TKT21039	Core 5G and Beyond	2 cr	all year around	Online teaching	English	Yes	Yes	Yes
TKT21040	Test-Driven Development	4 cr	3	Online teaching	English	Yes	Yes	Yes
TKT21041	Test-Driven Development: Full Stack	1 cr	3	Online teaching	English	Yes	Yes	Yes
Other studies		-	-	-	-	-	-	-
TKT50004	Academic skills	1 cr	1, 4	Contact teaching	Finnish	No	No	No
TKT500031	Computing Tools for CS Studies	1 cr	summer, 1-2	Online teaching	Finnish, English	Yes	Yes	Yes
TKT500031	Computing Tools for CS Studies	1 cr	3-4, summer	Online teaching	Finnish, English	Yes	Yes	Yes