INTERNATIONAL SEMESTERS

Academic year 2024-2025

School of ICT

Contact: incoming.exchange@turkuamk.fi

International semester in Embedded Systems is available only autumn or full academic year.

Autumn semester 2024

Embedded Systems * (needs to be taken as a whole)			
Course name + link to study guide	**Course code**	**ECTS credits**	**Prerequisites / quota of students / weekly schedule etc.**
Sensors and signal conditioning	5051229	5	
Electronics	5051225	5	
VHDL	5051158	5	
Innovation Project	TE00BL66	10	
Cryptology	5051156	5	
Total		**30**	

*Prerequisites: Fundamental skills in Mathematics, Computer architecture and Programming. The semester courses are mainly 3rd year ICT engineering (B.Eng.) courses. It is possible to join the semester only for the autumn part, or for full academic year. ECS network students / double degree students have priority to join the semester.

Game Development * (needs to be taken as a whole)			
Course name + link to study guide	**Course code**	**ECTS credits**	**Prerequisites / quota of students / weekly schedule etc.**
Game Development Essentials	5051259	5	
Object-oriented Programming	5051125	5	
Intro to Game Development Tools	5051234	5	
Gamification and Serious Games	5051235	5	
Game Mathematics and Algorithms or 2D Game Graphics	5051236 or TE00BL90	5 or 5	
Game Physics and Algorithms or 3D Game Graphics	5051233 or TE00BL91	5 or 5	
Total		**30**	

*Prerequisites: Fundamental skills in Mathematics, Computer Science, Programming and/or Graphical Design (2D/3D). The semester courses are mainly 3rd year ICT engineering (B.Eng.) courses.
(* Choose either Game Mathematics and Algorithms and Game Physics and Algorithms or 2D Game Graphics and 3D Game Graphics

ICT Projects and Cybersecurity * (needs to be taken as a whole)			
Course name + link to study guide	Course code	ECTS credits	Prerequisites / quota of students / weekly schedule etc.
Innovation Project	TE00BL66	10	max 5 students
Cryptology	5051156	5	max 5 students
Information Security Risk Management	3011369	5	max 5 students
Operational Security	5051245	5	max 5 students
Wireless Communications Systems	TT00CD89	5	max 5 students
Total		25	

Spring semester 2025 (January - end of April)

Embedded Systems * (needs to be taken as a whole)			
Course name + link to study guide	Course code	ECTS credits	Prerequisites / quota of students / weekly schedule etc.
Embedded Linux	5051227	15	
IoT Essentials	5051224	5	
IoT Big Data and Analytics	5000BL72	5	
IoT Security	TT00BO24	5	
Total		30	

*Prerequisites: Fundamental skills in Mathematics, Computer architecture and Programming. The semester courses are mainly 3rd year ICT engineering (B.Eng.) courses. It is possible to join the semester only for the autumn part, or for full academic year. ECS network students / double degree students have priority to join the semester.

Game Development * (needs to be taken as a whole)			
Course name + link to study guide	Course code	ECTS credits	Prerequisites / quota of students / weekly schedule etc.
Advanced UX and UI Technologies	5051238	5	
Serious Games Project	5051239	10	
Innovation Project	TE00BL66	10	
3D Modelling or Project Course in Game Development	TE00BG30 5051237	5 or 5	
Total		30	

*Prerequisites: Fundamental skills in Mathematics, Computer Science, Programming and/or Graphical Design (2D/3D). The semester courses are mainly 3rd year ICT engineering (B.Eng.) courses.

Choose either 3D Modelling or Project Course in Game Development

ICT Projects and Cybersecurity * (needs to be taken as a whole)			
Course name + link to study guide	**Course code**	**ECTS credits**	**Prerequisites / quota of students / weekly schedule etc.**
Routing, Switching and Wireless Essentials	TE00BU42	5	max 5 students
Network Security	TE00BL63	5	max 5 students
Enterprise Networking, Security and Automation	TE00BU43	5	max 5 students
Information Security Testing and Assessment	5051244	5	max 5 students
Cybersecurity Situational Awareness	TE00BZ70	5	max 5 students
Advanced Information Security Risk Management	TE00CP91	5	max 5 students
Total		**30**	

*Prerequisites: Fundamental skills in Office applications, Programming and Operating systems. The semester courses are mainly 3rd year Business ICT (B.BA.) courses.