

## INTERNATIONAL SEMESTERS

Academic year 2022-2023

# School of ICT

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

### Autumn semester 2022 (end of August - mid December)

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.
<a href="#">Sensors and signal conditioning</a>	5051229	5	
<a href="#">Electronics</a>	5051225	5	
<a href="#">VHDL</a>	5051158	5	
<a href="#">IoT Essentials</a>	5051224	5	
<a href="#">IoT Big Data and Analytics</a>	5000BL72	5	
<a href="#">IoT Security</a>	TT00B024	5	
<b>Total</b>		<b>30</b>	

\*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.
<a href="#">Game Development Essentials</a>	5051259	5	
<a href="#">Object-oriented Programming</a>	5051125	5	
<a href="#">Intro to Game Development Tools</a>	5051234	5	
<a href="#">Gamification and Serious Games</a>	5051235	5	

<a href="#">Game Mathematics and Algorithms</a> or <a href="#">2D Game Graphics</a>	5051236 or TE00BL90	5 or 5	
<a href="#">Game Physics and Algorithms</a> or <a href="#">3D Game Graphics</a>	5051233 or TE00BL91	5 or 5	
<b>Total</b>		<b>30</b>	

\*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.
<a href="#">Innovation Project</a> (*)	TE00BL66	10	no limit
<a href="#">Information Security</a>	3011366	5	max 10 students
<a href="#">Introduction to ICT Projects</a>	TE00BR81	10	max 10 students
<a href="#">Application Security</a>	3011640	5	Prerequisites: Application programming, Information security; max 5 students
<b>Total</b>		<b>30</b>	

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

(\* Innovation Project can be done either Autumn or Spring semester. If students take part in both semesters, Innovation Project should be completed during Spring.

## Spring semester 2023 (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.
<a href="#">Embedded Linux</a>	5051227	15	
<a href="#">Innovation Project</a>	TE00BL66	10	
<a href="#">Introduction to Digitalization</a> (virtual course)	TT00BG06	5	
or <a href="#">Cryptography</a>	5051156	5	
<b>Total</b>		<b>30</b>	

\*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.
<a href="#">Advanced UX and UI Technologies</a>	5051238	5	
<a href="#">Serious Games Project</a>	5051239	10	
<a href="#">Innovation Project</a>	TE00BL66	10	
<a href="#">3D Modelling</a> or <a href="#">Project Course in Game Development</a>	TE00BG30 5051237	5 or 5	
<b>Total</b>		<b>30</b>	

\*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.
<a href="#">Innovation Project</a> (*)	TE00BL66	10	no limit
<a href="#">Data Protection and Privacy</a>	3011580	5	max 10 students
<a href="#">Network Security</a>	TE00BL63	5	max 5 students
<a href="#">Information Security Testing and Assessment</a>	5051244	5	max 5 students
<a href="#">Operational Security</a>	5051245	5	max 5 students
<a href="#">Introduction to Digitalization</a> (**)	TT00BG06	5	no limit
<a href="#">Project Management</a>	TE00BR83	5	no limit
<b>Total</b>		<b>40</b>	

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

(\* Innovation Project can be done either Autumn or Spring semester. If students take part in both semesters, Innovation Project should be completed during Spring.

(\*\* Introduction to Digitalization course is a virtual course that starts in January. However, you may join in the already started course during Autumn.