Bachelor Programme in Computer Game Programming

Enrollment semester Autumn 2023

DATE
2022-05-19

REFERENCE NO.
LTU-1927-2022

DECISION MAKER
Dean of the Faculty of Engineering

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Programme content and structure

A Bachelor of Science degree from the program in Computer Game Programming (180 credits) requires (mandatory courses): Base courses 37,5 credits, Core courses 120 credits, electable courses 7,5 credits and thesis work of minimum 15 credits. Internships during the study period is recommended but not required for graduation. The programme is located at Campus Skellefteå.

For admission to the degree project course entry requirements specified in the Course Syllabus must be completed. Information regarding the application- and admission process is given and ensured by the responsible department.

Credits

180 credits

Degree

- Degree of Bachelor of Science in Engineering, Computer Engineering with specialisation Computer Game Programming

Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and have documented skills in English language +
Upper secondary school courses English 6, Physics 2, Chemistry 1, Mathematics 3c or Mathematics D.

Selection

The selection is based on final school grades or Swedish Scholastic Aptitude Test.

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Compulsory courses

Compulsory courses 37.5 credits

Course code	Course	Cr	Level	Comment
F0060T	Mechanics and Experimental Methods	7.5	Bachelor's level	
G0010N	Industrial Management with a Sustainability Perspective	7.5	Bachelor's level	
M0050M	Basic Mathematics and Derivatives	7.5	Bachelor's level	
M0051M	Integrals, Vectors and Matrices	7.5	Bachelor's level	
M0052M	Differential Equations and Transform Theory	7.5	Bachelor's level	

Compulsory courses 112.5 credits

Course code	Course	Cr	Level	Comment
D0009E	Introduction to Programming	7.5	Bachelor's level	
D0037D	Object oriented programming	7.5	Bachelor's level	
D0041D	Data structures and algorithms	7.5	Bachelor's level	
S0003E	Game development project	15	Bachelor's level	
S0005E	Introduction to game development	7.5	Bachelor's level	
S0009E	Computer graphics programming	15	Bachelor's level	
S0010E	Software Engineering	7.5	Bachelor's level	
S0011E	Game engine architecture	15	Bachelor's level	
S0012E	Computer Game Systems	15	Bachelor's level	
S0013E	Game Physics and Research Fundamentals	15	Bachelor's level	

30 credits

Credits för optional courses is 15 credits. Within the optional space of the programme it is possible to chose optional courses. The given number of credits must be met for degree.

Course code	Course	Cr	Level	Comment
S0003D	Thesis, computer games	15	Bachelor's level	
S0007E	Specialisation project in game development	15	Bachelor's level	Selectable

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Study schedule

Year of study 1 Enrollment semester Autumn 2023, Is offered in 2023/2024

Study-period	Course code	Course	Cr	Comment
1	D0009E	Introduction to Programming	7.5	
1	M0050M	Basic Mathematics and Derivatives	7.5	
2	D0037D	Object oriented programming	7.5	
2	M0051M	Integrals, Vectors and Matrices	7.5	
3	M0052M	Differential Equations and Transform Theory	7.5	
3	S0005E	Introduction to game development	7.5	
4	D0041D	Data structures and algorithms	7.5	
4	G0010N	Industrial Management with a Sustainability Perspective	7.5	

Year of study 2 Enrollment semester Autumn 2023, Is offered in 2024/2025

Study-period	Course code	Course	Cr	Comment
1	S0009E	Computer graphics programming	15	
2	F0060T	Mechanics and Experimental Methods	7.5	
2	S0010E	Software Engineering	7.5	
3	S0011E	Game engine architecture	15	
4	S0012E	Computer Game Systems	15	

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Year of study 3 Enrollment semester Autumn 2023, Is offered in 2025/2026, planned study schedule

Study-period	Course code	Course	Cr	Comment
1	S0003E	Game development project	15	
2	S0013E	Game Physics and Research Fundamentals	15	
3	S0007E	Specialisation project in game development	15	Selectable
3		Credits för optional courses	15	
4	S0003D	Thesis, computer games	15	Entry requirements