Computer Game Development and Programming

Enrollment semester Autumn 2024

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Programme content and structure

Computer Game Development and Programming is a three-year education (180 credits) leading to a Bachelor's degree with a focus on computer game development and programming.
The program is designed to equip students with the knowledge and skills needed to design, develop, and deploy interactive computer games.
The education consists of courses in media technology, computer science, and a compulsory thesis project.
Through lectures, seminars, and hands-on experience, students learn the principles, methodology, and design processes of computer game development. The program also provides students with practical experience in modern game engines and tools.
Upon completion of the program, graduates will have a comprehensive understanding of the concepts and techniques of computer game development and programming, and the ability to work on teams for the production of computer games, software, and interactive systems.

In order to be admitted to the course for the thesis project, the specified entry requirements in the course plan must be fulfilled. Special information about the application and admission procedure for the thesis project is ensured by the course provider.

The education leads to a Bachelor's degree in Media Technology with the focus on Computer Game Development and Programming.

Credits

180 credits

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. Exemption for Swedish A and B / Swedish 1-3. +
Upper secondary school courses English 6, Mathematics 3b or Mathematics 3c.

Selection

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

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Compulsory courses

Compulsory courses 150 credits

Course code	Course	Cr	Level	Comment
New	Datastructures, applied game math and algorithms	7.5	Bachelor's level	
New	Specialization project	15	Bachelor's level	
New	Gameplay development	7.5	Bachelor's level	
New	Game math	7.5	Bachelor's level	
New	UX and tools programming	7.5	Bachelor's level	
New	Game production 1	15	Bachelor's level	
New	Game engine architecture	15	Bachelor's level	
New	Realtime graphics programming	15	Bachelor's level	
New	Data oriented design	7.5	Bachelor's level	
New	Game production 2	15	Bachelor's level	
New	Game AI programming	7.5	Bachelor's level	
New	Game systems	7.5	Bachelor's level	
New	Introduction to game development	7.5	Bachelor's level	
New	Game production practices	7.5	Bachelor's level	
D0009E	Introduction to Programming	7.5	Bachelor's level	

Optional space with a suggestion of a course, that can be exchanged for other coureses 15 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
New	Interactive systems production	15	Bachelor's level	Selectable

Thesis work 15 credits

Course code	Course	Cr	Level	Comment
New	Thesis work in XX	15	Bachelor's level	

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Study schedule

Year of study 1 Enrollment semester Autumn 2024, Is offered in 2024/2025

Study-period	Course code	Course	Cr	Comment
1	New	Introduction to game development	7.5	
1	D0009E	Introduction to Programming	7.5	
2	New	Game math	7.5	
2	New	Data oriented design	7.5	
3	New	Datastructures, applied game math and algorithms	7.5	
3	New	Gameplay development	7.5	
4	New	Game production 1	15	

Year of study 2 Enrollment semester Autumn 2024, Is offered in 2025/2026, planned study schedule

Study-period	Course code	Course	Cr	Comment
1	New	Game production practices	7.5	
1	New	UX and tools programming	7.5	
2	New	Game AI programming	7.5	
2	New	Game systems	7.5	
3	New	Game engine architecture	15	
4	New	Realtime graphics programming	15	

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Year of study 3 Enrollment semester Autumn 2024, Is offered in 2026/2027, planned study schedule

Study-period	Course code	Course	Cr	Comment
1	New	Game production 2	15	
2	New	Interactive systems production	15	Selectable
2		Credits för optional courses	15	
3	New	Specialization project	15	
4	New	Thesis work in XX	15	

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