

Module title		Abbreviation
Game Research Lab - Applications		10-I=GRAP-182-m01
Module coordinator		Module offered by
holder of the Chair of Computer Science IX		Institute of Computer Science
ECTS	Method of grading	Only after succ. compl. of module(s)
10	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	graduate	--
Contents		
<p>The Game Research Labs are project-oriented, master-level courses. In accordance with the definition of Games Engineering, they concern themselves with the effective provision and the systematic application of principles, methods and tools for the development and application of comprehensive software systems for computer games. There are four different directions of Game Research Labs: Theory, Applications, Design and Architecture. All of them implement a scientific process during which the students develop a project based on preceding works and a novel idea or hypothesis worthwhile exploring. Typical steps in a Game Research Lab include a short literature survey, the development of a concept, its realisation and evaluation. The "Game Research Lab - Applications" aims at furthering or developing applications. While there are numerous viable application categories, entertainment and serious games are often considered first. Alternative categories of applications could, for instance, be remote control systems or social virtual worlds. These application categories, in turn, open up a vast space of application domains: Consider science, education and engineering. This Game Research Lab also includes developing for specific target platforms such as specialised video consoles.</p>		
Intended learning outcomes		
<p>We recommend previous completion of basic courses in Games Engineering such as Interactive Computer Graphics, Human-Computer Interaction or Game Development (corresponds with GameLab I). The Game Research Labs empower the students to retrace current scientific works in great detail, to improve their research skills and to deepen their expertise with respect to specific challenges in Games Engineering. In terms of contents, the "Game Research Lab - Applications" comprises knowledge and skills in the development life cycle of games, in the interdisciplinary discourse needed for applications in certain domains and in consideration of platform-specific programming requirements.</p>		
Courses (type, number of weekly contact hours, language — if other than German)		
R (4)		
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
<p>project report (10 to 15 pages) and presentation of project (15 to 30 minutes) Language of assessment: German and/or English creditable for bonus</p>		
Allocation of places		
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Additional information		
<p>Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): GE. Cf. Section 3 Subsection 3 Sentence 8 FSB (subject-specific provisions).</p>		
Workload		
300 h		
Teaching cycle		
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Referred to in LPO I (examination regulations for teaching-degree programmes)		
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Module appears in

Master's degree (1 major) Computer Science (2018)
Master's degree (1 major) Computer Science (2021)
Master's degree (1 major) Computer Science (2023)
Master's degree (1 major) Computer Science (2025)