

Module title		Abbreviation
Interactive Artificial Intelligence		10-GE-IKI-162-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)
5	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	--
Contents		
<p>Artificial Intelligence (AI) studies the science and engineering of making intelligent machines, that is, methods which let machines or software exhibit intelligent behaviour. This course specifically concentrates on interactive methods applicable to novel human-computer interfaces and computer games. The course will cover topics about problem solving in general, search methods, semantic representation, logic and deduction methods, constraint satisfaction methods, as well as algorithmical approaches to apply these methods to interactive systems. The latter includes the identification of necessary software modules and requirements for AI-enabled systems as well as APIs for building so-called world interfaces. An introduction to inductive learning approaches, in particular Q-Learning and Evolutionary Algorithms concludes the lecture.</p>		
Intended learning outcomes		
<p>After the course, the students will have a broad understanding of the underlying theoretical models and methods used in interactive Artificial Intelligence. They will be able to implement a prominent variety of these methods, to build their own intelligent interactive applications, and to choose the right software tool for this task.</p>		
Courses (type, number of weekly contact hours, language — if other than German)		
V (2) + Ü (2) Module taught in: German or English		
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
a) written examination (approx. 60 to 120 minutes) or b) presentation of project results (approx. 20 minutes) Language of assessment: German and/or English creditable for bonus		
Allocation of places		
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Additional information		
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Workload		
150 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		
Bachelor' degree (1 major) Games Engineering (2016) Bachelor' degree (1 major) Games Engineering (2017)		