

<b>Module title</b>		<b>Abbreviation</b>
Game Lab		o6-MCS-GameL-101-m01
<b>Module coordinator</b>		<b>Module offered by</b>
holder of the Chair of Computer Science IX		Institute of Computer Science
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
10	numerical grade	--
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
1 semester	undergraduate	--
<b>Contents</b>		
<p>Computer or video games have become a major aspect of modern culture and a large economic force in recent years. This course provides an introduction to the conceptual and technical approaches necessary to build computer games. The course will discuss the principles of game design, necessary tools for the design and development chain of computer games, the interactive game loop, necessary conceptual and functional aspects of game engines (I/O, graphics, physics, or artificial intelligence) and will provide an introduction to modern game architectures.</p>		
<b>Intended learning outcomes</b>		
<p>German intended learning outcomes available but not translated yet.</p> <p>Nach Abschluss der Veranstaltung verfügen die TeilnehmerInnen über ein weitreichendes Verständnis aller Aspekte, die für das Design und die Entwicklung eines Computerspiels wichtig sind. Dies beinhaltet die grundlegende Softwarearchitektur moderner Computerspiele sowie verfügbare Werkzeuge zur Bewältigung typischer anfallender Aufgaben. Die TeilnehmerInnen werden in der Lage sein eigene Computerspiele zu entwickeln und die richtigen Werkzeuge für spezielle Anforderungen auszuwählen.</p>		
<b>Courses</b> (type, number of weekly contact hours, language – if other than German)		
<p>This module comprises 2 module components. Information on courses will be listed separately for each module component.</p> <ul style="list-style-type: none"> <li>• o6-MCS-GameL-1-101: V (no information on SWS (weekly contact hours) and course language available)</li> <li>• o6-MCS-GameL-2-101: R (no information on SWS (weekly contact hours) and course language available)</li> </ul>		
<b>Method of assessment</b> (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
<p>Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</p> <p><b>Assessment in module component o6-MCS-GameL-1-101: Creating Games</b></p> <ul style="list-style-type: none"> <li>• 4 ECTS, Method of grading: numerical grade</li> <li>• a) written examination (approx. 60 minutes) or b) written examination (approx. 40 minutes) with exercises (40 hours), weighted 5:1 or c) oral examination of one candidate each (approx. 30 minutes) or d) presentation (15 to 30 minutes) with written elaboration (10 to 15 pages) or e) term paper (15 to 20 pages) or f) portfolio (maximum 20 pages)</li> <li>• Language of assessment: German or English</li> </ul> <p><b>Assessment in module component o6-MCS-GameL-2-101: Developing Games</b></p> <ul style="list-style-type: none"> <li>• 6 ECTS, Method of grading: numerical grade</li> <li>• talk (approx. 30 minutes) and written elaboration (approx. 10 pages)</li> </ul>		
<b>Allocation of places</b>		
--		
<b>Additional information</b>		
--		



**Referred to in LPO I** (examination regulations for teaching-degree programmes)

--

**Module appears in**

Bachelor' degree (1 major) Human-Computer Systems (2010)