

<b>Module title</b> Augmented reality and games with Unity3D				
<b>Module code</b> To be announced	<b>Level</b> Bachelor (B.Sc.)	<b>Hours per week</b> 4	<b>ECTS credits</b> 5	<b>Duration</b> 2 weeks block course + virtual lectures
<b>Module instructor</b> Mauro Figueiredo, Algarve University		<b>Lecture type</b> Lectures + Guided Lab Sessions	<b>Prerequisite(s)</b> Intermediate Programming Ability	<b>Grading</b> Single Programming Assignment
<p><b>Objectives</b></p> <ul style="list-style-type: none"> <li>• Understand games concepts using the Unity game development platform</li> <li>• Understand augmented reality concepts</li> <li>• Code using the Unity platform to create games, augmented reality or interactive applications</li> </ul> <p>Students in the end of the course will master the Unity development platform. It is a fully integrated development engine providing the required functionality to create games and interactive content, while reducing the time, effort, and cost of developing the content. At present time 34% of free mobile games are developed using the Unity platform.</p> <p>Students will be asked to extend an existing application or to create a game or create an augmented reality app. This will constitute the single assignment for the module.</p> <p>Knowledge of JavaScript or C# is advised.</p>				
<p><b>Content</b></p> <ul style="list-style-type: none"> <li>• Introduction to Unity</li> <li>• Scripting</li> <li>• Scene Management</li> <li>• Introduction to Games</li> <li>• Design and implementation of Games</li> <li>• Graphics</li> <li>• Animation</li> <li>• Augmented reality</li> <li>• Extending an application / Creating a game / Creating an augmented reality application.</li> </ul>				
<p><b>Textbook/teaching material (for reference purposes)</b></p> <ul style="list-style-type: none"> <li>• Unity Game Development Succinctly, Jim Perry, Synfusion, 2017</li> <li>• Mastering Unity Scripting, Alan Thorn, Packt, 2015</li> <li>• Unity 5.x Cookbook, Matt Smith, Chico Queiroz, Packt, 2015</li> </ul>				

Note: this is not the official course descriptor according to the "Studien- und Prüfungsordnung" (SPO)