

<b>Department</b>	07 Computer Science and Mathematics
<b>Course title</b>	<b>Agentic Design</b>
<b>Hours per week (SWS)</b>	4
<b>Number of ECTS credits</b>	5
<b>Course objective</b>	<p>The Agentic Design module introduces students to the fundamentals and application areas of AI agents. It teaches both theoretical concepts and practical skills for the development and evaluation of independent, interactive software systems that can act as "agents" in various application scenarios. Through practical examples and projects, students will be able to design and implement agent systems that can learn, make decisions and adapt in dynamic environments. After successfully completing the module, students will be able to: - express the basic concepts in the field of intelligent agents in their own words. - differentiate between architectures and models for agent systems and plan and design agents for different use cases - know the essential concepts, methods, techniques and tools for the use of intelligent agents in software systems - apply the principles and methods of intelligent agents to a practical problem as part of a projects - critically evaluate current trends in the field of intelligent agents and their significance for business and industry.</p>
<b>Prerequisites</b>	Programming in Python, basic knowledge of machine learning
<b>Recommended reading</b>	
<b>Teaching methods</b>	
<b>Assessment methods</b>	
<b>Language of instruction</b>	English
<b>Name of lecturer</b>	Prof. Franz Kurfess
<b>Email</b>	
<b>Link</b>	
<b>Course content</b>	<p>- Introduction to agent systems - Agent architectures - Intelligence and decision making - Learning methods for agents - Communication in multi-agent systems - Application examples - Own project (preferably as a team project) - Current trends and ethical aspects</p>
<b>Remarks</b>	