



Valid from 2026.HS

Module description: Web Application Development			
Module Code	t.BA.MI.EWA.23HS		
ECTS Credits	4		
Language of Instruction/Examination	German		
Organizational Unit	InIT		
Module Coordinator	Stephan Roth		
Legal Framework	The module description is part of the legal basis in addition to the general academic regulations. It is binding. During the first week of the semester a written and communicated supplement can specify the module description in more detail.		
Module Characteristic	Type 3a 2 lecture lessons per semester week and class+ 2 weekly lab lessons per semester and half-class		
Module Description	In this module, you will learn the basics of web technologies: you will develop client-side web applications using JavaScript, HTML and CSS. Through a series of tasks that build on one another, you will develop various small interactive web pages.		
Module Content	<ul style="list-style-type: none"> • Web technologies play a central role in many areas of IT. Applications are often realised across platforms with web front-ends; this applies both to simple stand-alone solutions and to complex, networked systems that communicate with a wide variety of servers. The web technologies JavaScript and HTML with CSS are at the core of this development. . • Introduction to the creation of webpage - Elements of the HTML web page language - • Structure of a webpage with HTML - Structuring a webpage - Designing webpage elements using CSS . • JavaScript in the browser * Language elements, similarities to Python * Event handling * Dynamic customisation of webpage elements * State: Sessions, data storage in cookies and local storage * Communication with server via API 		
Prerequisite Knowledge	Basic programming skills (preferably in Python) <ul style="list-style-type: none"> • Variables, constants • Control structures: conditions, loops • Functions • OOP • Data service interaction 		
Learning Objectives (Competencies)	Students...	Competencies	Taxonomies
	You have basic knowledge of the JavaScript programming language and you are able to develop client-side web applications.	M, F	K1, K2, K3
	You understand the structure of a website and you can develop a simple website yourself.	F, M	K1, K2, K3
	You understand the basics of web architecture consisting of languages for tagging and displaying content, handling the DOM (Document Object Model) and client-server communication.	M, F	K1, K2, K3

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Performance Assessment	End-of-module exam	Assessment	Length (min.)	Weighting	Social Form	Scenario/Format
	written exam	Grade	60	70%	acc. to module agreement	
		Assessment	Length (min.)	Weighting	Social Form	Scenario/Format
	various performance assessments	Grade		30%	acc. to module agreement	
Classroom Attendance Requirement	None					