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
Deputy Module Coordinator	Henrik Stormer
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 lab bi-weekly lessons per semester and half-class
Module Description	Development of Web Applications
Module Content	• 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 cockies and local storage * Communication with server via API
Prerequisite Knowledge	Basic programming skills (preferably in Python) • Variables, constants • Control structures: conditions, loops • Functions • OOP • Data service interaction

Learning Objectives (Competences)

Students...	Competencies	Taxonomies
You understand the structure of a website and you can develop a simple website yourself.	F, M	K1, K2, K3
You have basic knowledge of the JavaScript programming language and you are able to develop client-side web applications.	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.	F, M	K1, K2, K3

Module description: Web Application Development

Performance Assessment	End-of-module exam	Assessment	Length (min.)	Weighting	Form
	written exam	Grade	60	80	acc. to module agreement

	Performance assessment during the semester	Assessment	Length (min.)	Weighting	Form
		Grade		20	acc. to module agreement

Classroom Attendance Requirement	None
Learning material	
Comments	