

Course Manual WA

Web Architectures

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– General information

Long name Web Architectures

Approving CModule [WA_BaTIN](#)

Responsible Prof. Dr. René
Wörzberger
Professor Fakultät IME

Valid from summer semester 2022

Level Bachelor

Semester in the year every semester

Duration Semester

Hours in self-study 78

ECTS 5

Professors Prof. Dr. René
Wörzberger
Professor Fakultät IME

Requirements (1) advanced programming skills in Java
(2) experiences with development projects in teams
(3) basic knowledge in software engineering

Language German, English if necessary

Separate final exam Yes

Literature

wird in Vorlesung bekannt gegeben

Final exam

Details The final exam is either written or oral. Guided by stepwise assignments, students have to demonstrate how they develop a simple yet dynamic web application.

Minimum standard Some basic knowledge in the aforementioned topics must be demonstrated. Usually, in written exams 50% of all exam points suffice.

Exam Type EN Klausur

– Lecture / Exercises

Learning goals

Goal type	Description
Knowledge	(1) basic standards and techniques of the World Wide Web, like the Hypertext Transfer Protocol (HTTP), Transport Layer Security (TLS), constituents of URLs etc.; (2) browser technologies like the Hypertext Markup Language (HTML), Cascading Stylesheets (CSS), Javascript and common frameworks like React; (3) server-side frameworks like Spring-Boot (4) web-based system architectures and their constituents like the Domain Name System (DNS), Load-Balancer, Web-Server, or Content Delivery Networks (CDN).

Special requirements

none

Accompanying material	(1) lecture slides (2) lecture notes (tbd) (3) assignment sheets
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Separate exam	No
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Expenditure classroom teaching

Type	Attendance (h/Wk.)
Lecture	2
Exercises (whole course)	1
Exercises (shared course)	0
Tutorial (voluntary)	0

– Practical training

Learning goals

Goal type	Description
Skills	Based on given requirements (user stories) students develop a web application in several stages (1) beginning with a static web site, (2) a dynamic web site that is rendered on the server ending with (3) a full-fledged, dynamic single-page application that is rendered partly on the server and partly in the browser.

Special requirements

none

Accompanying material	(1) assignment sheets for the prepared part (home work) of the lab course (2) assignment sheets for the on-site part of the lab course
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Separate exam	Yes
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Expenditure classroom teaching

Type	Attendance (h/Wk.)
Practical training	1
Tutorial (voluntary)	0

Separate exam

Exam Type	EN Projektaufgabe im Team bearbeiten (z.B. im Praktikum)
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Details	Solutions of the home work and on-site part of the lab course have to be demonstrated by the student teams and to be discussed with supervisors. In case of sufficient solution quality members of the respective team get a pass for the lab course part. There are about 3 to 4 lab course parts in each term.
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Minimum standard	Solutions must work in the sense of the assignment.
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