

Drehbuch für das Modul SWA (Software Architecture)

KW	SW	Datum	Thema (geplant), Änderungen im Ablauf sind möglich
38	1	17.09.2024	WHAT – Architecture introduction, essential concepts, context, system, system architecture, architecture disciplines (enterprise, domain, and software architecture)
39	2	24.09.2024	WHERE – Architecture view models, modelling, architecture description, Kruchten 4+1 view model
40	3	01.10.2024	WHERE – Kruchten view model – development view, low representational gap (LRG), Kruchten view model – logical view, exercise: <i>gaming platform</i> initiation (iteration #1)
41	4	08.10.2024	WHERE – logical view (OO-design), development view (OO-design), exercise: <i>gaming platform</i> (iteration #2, #3, #4)
42	5	15.10.2024	WHY – Architecture conditions (requirements, constraints, assumptions), architecture significance, QAS, architecture approach, exercise: <i>gaming platform – workflow</i> (iteration #5)
43	6	22.10.2024	HOW – Architecture methodology, architecture mandate, solution architecture methodology, exercise: <i>servlet engine</i> WITH WHAT – architecture means overview (principles, tactics, styles, patterns, basic architectures, reference architectures)
44	7	29.10.2024	WITH WHAT – architecture principles, single-responsibility principle, open/closed principle, exercise: <i>gaming platform – states</i> (iteration #6)
45	8	05.11.2024	Exam (first part of semester) – topic focus: 1 st half of semester (90 minutes)
46	9	12.11.2024	WITH WHAT – architecture principles, liskov substitution principle, interface segregation principle, dependency inversion principle, exercise: <i>gaming platform – automatic alerts</i> (iteration #7)
47	10	19.11.2024	Debrief and discussion – interim exam, WITH WHAT – basic architecture concepts, component platforms and components, component interfaces, exercise: <i>API versus SPI</i>
48		26.11.2024 – 29.11.2024	Project Week (no software architecture lecture this week)
49	11	03.12.2024	WITH WHAT – basic architecture concepts, component composition, components in Java, exercise: <i>gaming platform – packages</i> (iteration #8)
50	12	10.12.2024	WITH WHAT – architecture patterns, pattern, pattern language, architecture patterns (e.g., layers, model-view-controller, pipes and filters)
51	13	17.12.2024	WITH WHAT – architecture patterns (e.g., hub and spoke micro-services, others)
2	14	07.01.2025	WHO – architecture organization, architecture function, organizational force field, interdependencies between organization design and system architecture
3	15	14.01.2025	Software architecture retrospective – reflection and retrospective on the software architecture module, exam related Q&A.
5-6		30.01.2025 – 11.02.2025	MSP (whole semester exam) – topic focus: 2 nd half of semester (90 minutes).

Arbeitsaufwand

Den 3 ECTS entsprechen 90 Stunden Aufwand im Durchschnitt. Davon entfallen 42h (14 x 3h) auf das Kontaktstudium gemäss Stundenplan. Die übrige Zeit entfällt auf das Selbststudium zuhause (z.T. anhand von Selbststudiums-Aufgaben) sowie Prüfungsvorbereitung.

Prüfungen / Notenbildung

- Zwischenprüfung: Dienstag, 05.11.2024, schriftl. 90 min. Note wird auf 1/10 gerundet in Evento als Erfahrungsnote (EN) eingetragen.
- MSP: Datum wird noch mitgeteilt, schriftl. 90 min. Note wird auf 1/10 gerundet in Evento eingetragen.
- Beide schriftlichen Prüfungen (Zwischenprüfung und MSP) werden ohne Hilfsmittel geschrieben.
- Die Gesamtnote ergibt sich aus der Formel:

$$\text{Gesamtnote} := (\text{Note-Zwischenprüfung} + \text{Note-MSP}) / 2$$