
Modulbezeichnung: Software Architecture (PSWT-ARCH) **5 ECTS**

Modulverantwortliche/r: Dirk Riehle

Lehrende: Dirk Riehle, Martin Jung

Startsemester: WS 2012/2013

Dauer: 1 Semester

Turnus: jährlich (WS)

Präsenzzeit: 60 Std.

Eigenstudium: 90 Std.

Sprache: Deutsch oder Englisch

Lehrveranstaltungen:

Software Architecture (WS 2012/2013, Seminar, 4 SWS, Dirk Riehle et al.)

Inhalt:

Modulbezeichnung

- PSWT-ARCH (Software Architecture)

Dozenten

- Dr. Martin Jung
- Prof. Dr. Dirk Riehle, M.B.A.

Inhalt

The architecture of a software system describes the key components of the system, their relationships and structure, and the behavior and dynamics of their relationships and structure. This seminar presents and discusses the following key aspects of software architecture:

- Basic building blocks and relationships
- Software architecture description languages
- Software architecture styles and patterns
- Libraries, frameworks, and platforms
- Formal as well as de-facto industry standards
- Noteworthy systems and their architectures
- Non-technical criteria in software architecture
- Tools for software architects
- The role and function of the software architect

This course has two parts:

- A traditional seminar part: Students pick a topic and present about it in class. We then discuss its content.
- A multimedia-based part: Every session we watch a video and discuss it in class. For more information see <http://wp.me/pDU66-lb>

ARCH runs as a three-hour block. For past ARCH seminar impressions see <http://osr.cs.fau.de/category/teaching/arch/>

There should be a StudOn class section with additional materials; please make sure you sign-up. If the materials aren't there yet, they'll be coming soon.

For the schedule see <http://goo.gl/ZXJjg>

Lernziele und Kompetenzen

- Understand key concepts of software architecture
- Understand the role and function of an architect
- Understand industry relevant software architectures

Studien- und Prüfungsleistungen

Students have to fulfill these duties

- class participation
- student presentations

Grades are based on linearly combining the individual grades as weighted by the amount of work (ECTS) needed for it.

For more information see <http://wp.me/pDU66-wz>

Unterrichtssprache

- English or German, as appropriate

Vorbereitende Literatur

- See <http://www.studon.uni-erlangen.de/crs479088.html>

Verwendbarkeit des Moduls / Einpassung in den Musterstudienplan:

Das Modul ist im Kontext der folgenden Studienfächer/Vertiefungsrichtungen verwendbar:

[1] **Informatik (Master of Science)**

(Po-Vers. 2010 | Wahlpflichtbereich | Säule der softwareorientierten Vertiefungsrichtungen | Vertiefungsmodul Software Engineering)

[2] **Informatik (Master of Science)**

(Po-Vers. 2010 | Seminar | Seminar)

Studien-/Prüfungsleistungen:

Software Architecture (Seminar) (Prüfungsnummer: 635955)

Prüfungsleistung, mehrteilige Prüfung

Anteil an der Berechnung der Modulnote: 100%

weitere Erläuterungen:

Students have to fulfill these duties

- class participation
- student presentations

Grades are based on linearly combining the individual grades as weighted by the amount of work (ECTS) needed for it.

Erstablegung: WS 2012/2013, 1. Wdh.: keine Wdh.

1. Prüfer: Dirk Riehle
