



Modulbeschreibung

Advanced Information Management 1 (AIM-1) - Heterogeneous and Distributed Information Systems (HDIS)

Modultitel: Advanced Information Management 1 (AIM-1) - Heterogeneous and Distributed Information Systems (HDIS) Advanced Information Management 1 (AIM-1) - Heterogeneous and Distributed Information Systems (HDIS)	Leistungspunkte: 6	Modulverantwortlicher: Kutsche, Ralf-Detlef
URL: http://www.dima.tu-berlin.de	Sekretariat: EN 7	Ansprechpartner: Kutsche, Ralf-Detlef
	Modulsprache: Englisch	Kontakt: sekr@dima.cs.tu-berlin.de

Lernergebnisse

The participants of this module will achieve deep conceptual, methodical, technical and practical knowledge in requirements analysis, design, architecture and development of heterogeneous and distributed information systems. This includes firstly classical knowledge about federated databases and mediator-based information systems (tight or loose coupling wrt. the dimensions of distribution, heterogeneity and autonomy). Secondly, different paradigms of heterogeneous information infrastructures and their management (e.g. P2P) and interoperability architectures ('middleware') will be investigated. Finally, modern model-based concepts for the development, integration and evolution of arbitrary information infrastructures, and –under this conceptual frame– model, metamodel, and metadata management as well as semantic concepts will be discussed and brought into practical experience by some larger project-like group work.

no translation

Lehrinhalte

- Foundations/Terminology of HDIS (FDBS, FIS, MBIS)
- Dimensions of HDIS: Distribution, Heterogeneity, Autonomy
- Heterogeneous Data Models in HDIS: structured, semistructured, unstructured
- Distributed Data Organisation and Software Architectures of HDIS (FIS, P2P, CS, ...)
- Interoperability and Middleware Platforms for HDIS
- Persistency Services
- Metadata Standards and Management in HDIS
- Model-based Development of HDIS
- Applications from Industry and Public Services

no translation

Modulbestandteile

Lehrveranstaltungen	Art	Nummer	Turnus	SWS
Advanced Information Management 1 - Heterogenous and Distributed Information Systems	IV	0434 L 440	WS	4

Arbeitsaufwand und Leistungspunkte

Advanced Information Management 1 - Heterogenous and Distributed Information Systems (Integrierte Veranstaltung)	Multiplikator:	Stunden:	Gesamt:
Final report & presentation	15.0	2.0h	30.0h
Lab exercises including project task	15.0	4.0h	60.0h
Plenary sessions of this integrated course	15.0	4.0h	60.0h
Preparation / Consolidation (including literature work and seminar presentation)	15.0	2.0h	30.0h
			180.0h

Ein Leistungspunkt entspricht 30.0 Stunden (Es wird folgende Rundungsart verwendet: Aufrunden)

Beschreibung der Lehr- und Lernformen

This „integrated course“ (Integrierte Veranstaltung, IV) consists of a lecture partition and a seminar-like partition, where all participants develop one of the key topics with own literature work and give short presentations. Additionally, there is a practical lab part of smaller and larger exercises, particularly one complex task, to be fulfilled in team work. Active contribution to all parts of the course is essential, as there will be a final report and a final presentation of all members of the course.

Voraussetzungen für die Teilnahme / Prüfung

Wünschenswerte Voraussetzungen für die Teilnahme zu den Lehrveranstaltungen:

Prerequisites: The basic modules in the Bachelor Curriculum in "Informatik", or "Technische Informatik" or "Wirtschaftsinformatik" or "Wirtschaftsingenieurwesen"; particularly knowledge in Database Systems/ Information Modeling and Software Engineering / Programming is required.

The AIM-1 / HDIS course will be given in English language, thus fluency in English is required!

Verpflichtende Voraussetzungen für die Modulprüfungsanmeldung:

keine Angabe

Abschluss des Moduls

Prüfungsform:

Portfolioprüfung

Benotet:

benotet

The grade will be given by fulfilling all required tasks during the course (portfolio exam): seminar work including the oral presentation and the final report; home/lab exercises including presentation and the semester project including the final report/presentation.

The final grade according to § 47 (2) AllgStuPO will be calculated with the faculty grading table 2.

(Die Gesamtnote gemäß § 47 (2) AllgStuPO wird nach dem Notenschlüssel 2 der Fakultät IV ermittelt.)

Prüfungselement

(Deliverable assessment) Homework Presentation

Gewicht

10

(Deliverable assessment) Project Work: Software, Documentation, Presentation

25

(Deliverable assessment) Seminar Talk

25

(Deliverable assessment) Written Seminar Report

40

Dauer des Moduls

Das Modul kann in 1 Semester(n) abgeschlossen werden.

Maximale teilnehmende Personen

Das Modul ist auf 30 Teilnehmer begrenzt.

Anmeldeformalitäten

Students are required to register via the DIMA course registration tool before the start of the first lecture (<http://www.dima.tu-berlin.de/>).

Within the first six weeks after commencement of the lecture, students will have to register for the course at QISPOS (university examination protocol tool) and ISIS (course organization tool) in addition to the registration at the DIMA course registration tool.

Literaturhinweise, Skripte

Skript in Papierform:

nicht verfügbar

Elektronisches Skript:

Es wird ein elektronisches Skript angeboten

Hinweis zum elektronischen Skript:

<http://www.dima.tu-berlin.de>

Empfohlene Literatur:

For each topic during this course appropriate text books, research papers, technical reports and standardization documents will be used.

Zugeordnete Studiengänge

Die Modulversion wird auf keiner Modulliste verwendet.

Sonstiges

keine Angabe