inf538 - Adaptive Computing

Module label: Adaptive Computing  
Module code: inf538  
Credit points: 6.0 KP  
Workload: 180 h  
Used in course of study:
- Master's Programme Business Informatics > Akzentsetzungsmodule Bereich Wirtschaftsinformatik
- Master's Programme Computing Science > Angewandte Informatik

Contact person:
Module responsibility:
- Jorge Marx Gomez
- Jürgen Sauer
- Die im Modul Lehrende

Authorized examiners:
- Jorge Marx Gomez
- Jürgen Sauer
- Die im Modul Lehrende

Entry requirements:

Skills to be acquired in this module:

Professional competence
- The students:
  - characterise problems that occur during the operation of large-scale operating systems
  - characterise conceptional, technical, economical and organizational problem-solving processes
  - use these concepts to solve problems validly

Methodological competence
- The students:
  - describe a current problem area based on information from the internet and literature

Social competence
- The students:
  - present their findings on a problem area
  - discuss their results regarding a specific application area

Self-competence
- The students:
  - reflect actual concepts with regard to specific application areas

Module contents:

Content of the Module:
"Adaptive Computing" deals with the field of concepts and solutions to manage large scale application systems or dynamic data centers. Technically oriented solutions like the configuration of data centers such as the hard- and software virtualization, the high availability, the storage management and the identity management are not the only contributions of Adaptive Computing. Others are organisational aspects of companies, such as personnel planning and service agreements.

This module provides and compiles current topics of Adaptive Computing. The module also presents and evaluates several Adaptavie Computing technologies. Current HW-/SW-concepts of large-scale application systems, strategies, service management and security concepts are specifically included.

The lecture introduces current concepts and solutions for the management of dynamic data centers. Among others, the following subjects are provided:

- IT-Strategy, -Organisation
- ITIL (overview)
- Service-Management Tools (e.g. OTRS)
• Outsourcing
• Security (policies, privacy, data security, safety)
• Spatial design of data centers
• HW-Strategies: Cluster, Storage, ...
• Virtualization
• IdM
• Portals
• Configuration management
• Accounting, performance calculation and evaluation, performance indicators
• SOA, EAI
• Controlling tools, Monitoring
• Solutions: SAP Adaptive Computing

Reader’s advisory

Suggested reading:
• current company data
• current materials from internet
• Tiermeyer, Ernst: Handbuch IT-Management: Konzepte, Methoden, Lösungen und Arbeitshilfen für die Praxis, Hanser, 2006

Links
Language of instruction German
Duration (semesters) 1 Semester
Module frequency jährlich
Module capacity unlimited
Module level AS (Akzentsetzung / Accentuation)
Modulart je nach Studiengang Pflicht oder Wahlpflicht

Lern-/Lehrform / Type of program
Vorkenntnisse / Previous knowledge

Examination Time of examination Type of examination Portfolio

Final exam of module at the end of the semester Portfolio

Course type Comment SWS Frequency Workload attendance
Vorlesung und Seminar 2.00 SuSe 28 h
Exercises 2.00 SuSe 28 h

Total time of attendance for the module 56 h