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 Lehrenden

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

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
- Tiemeyer, 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)
Module type
je nach Studiengang Pflicht oder Wahlpflicht

Vorkenntnisse / Previous knowledge

Examination
Time of examination
Type of examination
Portfolio
Final exam of module
at the end of the semester

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