Studiengang Informationswissenschaft (Master of Science)

Themenbereich: Informationsarchitektur

Modul-bezeichnung	Hard and Soft System Development (Hard and Soft System Development)
Belegnummer	2104
Studiengang / Verwendbarkeit	Masterstudiengang Informationswissenschaft
Modulverantwort-liche(r)	Prof. Geribert Jakob
Dozent(in)	Prof. Geribert Jakob, Malcolm Davenport
Dauer	1 Semester
Credits	5 CP
Prüfungsart	Seminar paper; Presentation
Sprache	englisch
Inhalt	**a) Subjects** **(Hard/Engineering Methods of) Organizational and System Development** System and Organizational Design **methodology standards:** • Structure/Hierarchy and course of action in the company (traditional organizational thinking) • (vs.) the role model and the process organization (includes quality management) • Human resource development • Formal and informal organizations, social systems • Professional communication • (Product) Life cycle models and versioning (includes ISO 12207) • Innovation cycles and processes (in general) • The unified model • Performing the analysis phase, delivering the due model • Performing the design phase, delivering the implementation model, delivering the business processes • Performing the construction phase and testing, delivering the system, delivering the work flows (= automated parts of a business process) • Requirements Management • Change Management • Stakeholder Relationship Management

Technology and Organisations

- Evidence of issues in IT development and implementation
- Social Engineering and Burrell and Morgan model of organisational change
- Socio-technical design
- Actor-Network analysis and technological change
- Involvement and participation

Technology and Intervention Strategies

- System Design methodologies evaluation
- Change management models:
- EFQM
- CMMI
- TQM/6Zigma
- IS Strategy
- Learning Organisation
- Knowledge Management
- Balanced Scorecard
- Process Improvement
- Performance Management

Soft Systems Methodology

- Complexity in organisations
- Hard or Soft approaches
- SSM 7 stage process
- Rich picture building
- Conceptual Modelling
- Issue based and primary task modelling
- Information analysis, MIS and Maltese cross
- Organisational issues and process mapping
- Taking action for desirable and feasible change

	Review and Evaluation Critical evaluation of Information technology development and implementation processes that leading to organisational change. Best practice and the search for a way forward. **b) Students duties and deliverables** Participants have to write a seminar paper and present it twice with different perspective. The seminar paper is based on a choice of a subject from a list given by the lecturers. This paper will do an academic approach towards the description, modelling, and development of organizations and application systems in an engineered way (primarily based on ISO standards). This is part 1 and perspective 1, and it is an individual performance. Part 2, thus perspective 2 will be a team effort of 3 or 4 participants each. They will develop, describe, and analyze case studies on soft system development. This includes an explanation of the difference/deviations between hard and soft system development based on criteria to be explored by the team. All submitted subjects of the seminar papers will be derived directly from the distinct course subjects.
Angestrebte Lernergebnisse (Learning Outcome)	**Module Aim** Technology is constructed through human activity. Values, culture and skills in the design process are built into technological artefacts. The operation of new technology invokes an organisational development process linked with the introduction of new technology. The module aims to improve the realization of business value from technology investments by focusing on the processes, methods and mechanisms whereby the development, application and implementation of technology is conducted and controlled in organisations in order to identify the principles, best practices, and techniques required. **Main learning outcomes:** An understanding of the impact of technological change in organisations and insight into lessons to be learned and good practice for managing IT system development and implementation. The students will be able to: 1. Understand the processes and mechanisms involved in technological change in the context of other managerial functions and decision-making processes. 2. Recognise and critically evaluate methodologies for implementing technological change. 3. Define the different analysis and design strategies available for developing technological solutions. 4. Select appropriate strategies and methods for developing and implementing technological change in organisations taking into account people, processes and structures. 5. Incorporate suitable development and design strategies and methods into practical approaches to introducing new technology into organisations.
Niveaustufe / Level	Spezialisierung (specialized level course)
Lehrform / SWS	Seminar (4 SWS)

Arbeitsaufwand / Workload	128 Stunden
Units (Einheiten)	
Notwendige Voraussetzungen	
Empfohlene Voraussetzungen	
Häufigkeit des Angebots	
Anerkannte Module	Siehe § 19 ABPO
Medienformen	
Literatur	

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