

A close-up, low-angle shot of a laptop keyboard with a vibrant, multi-colored glow (blue, purple, orange) emanating from the keys. The laptop is open, and the keyboard is the central focus.

Short Module Manual **Digital Transformation Management (M.A.)**

XU Exponential University
of Applied Science

SHORT FACTS

Graduation	Master of Arts (M.A.)	Type of study	Full-time
Scope	60 ECTS	Total number of semesters	2 semesters
Language	Englisch	Matriculation date	Every winter semester
Teaching method	Seminars in small groups, additional excursions, case studies, integration into practice		

Course and content of studies

SEMESTER 1	MEM 7 Digital Transformation	5 ECTS oral exam
	<ul style="list-style-type: none"> Digital Journey: Industry 4.0, digital future markets, IoT, generations of digitalization, communication in the digital age Digital Solutions: Digital business models, connecting real and virtual worlds, digital leadership, hardware and software solutions, M2M communication 	
	MEM 1 Digital Management	5 ECTS case study
	<ul style="list-style-type: none"> Digital Strategy: Elements of a digital strategy, strategy implementation and -controlling Digital Governance: Significance and aspects of digital governance, control models, structure and process analysis, introduction to innovation and knowledge management, risk and compliance management 	
	MEM 2 Digital Organization	5 ECTS written exam
	<ul style="list-style-type: none"> Digital Culture: Fundamentals of organizational culture, transformation of organizational culture, concepts of organizational development, fundamentals of change management, significance of corporate culture Digital Change/Change Management (Project): Basics and preparation, analysis and diagnosis, concept development and planning, implementation and realization, evaluation of digital change processes. 	
	MEL 1 Digital Human Resources	5 ECTS term paper
	<ul style="list-style-type: none"> Digital Recruitment: Recruiting, e-recruiting, importance of social media, legal aspects and limits of digital recruiting Digital Assessment/Performance Management: Performance management and measurement, retention management, potential management, software solutions for personnel development 	
	MSK 1 Leadership Skills	5 ECTS oral exam
	<ul style="list-style-type: none"> Digital Leadership: Changes in the leadership role, characteristics of digital leadership, modern leadership models, leadership tasks and competencies, agile leadership Emotional Leadership: Importance of emotional competencies, emotional intelligence, team leadership and conflict management, case work on selected leadership situations 	
	Elective module (1 of 3)	5 ECTS presentation

SEMESTER 2

Elective module (1 of 5)

5 ECTS
term paper

MSK 2 Research Skills

5 ECTS
term paper

- Research Methods and Evaluation: Quantitative and qualitative research methods, statistics
- Research Project: Planning and implementation of a research project, presentation and defense

MT 2 Master Thesis Set-up

5 ECTS
oral exam

- Master Thesis Colloquium: Scientific work, scientific-ethical quality criteria, concept presentation of the master thesis
- Master Thesis Reflection/Coaching: Professional supervision of the Master Thesis

MT 1 Master Thesis

15 ECTS
thesis

ELECTIVE MODULES

One must be selected per semester. The realization of the election modules depends on a minimum number of participants.

SEMESTER 1

MEL 10 Digital Marketing

5 ECTS
presentation

- Social Media Marketing: Introduction online marketing, social media marketing, development of social media strategy, guidelines and policy, implementation of social media strategies, evaluation
- Search Engine Marketing: Fundamentals, goals and importance of search engine marketing, SEO, search engine advertising, SEM tools

MEL 11 Digital Engineering

5 ECTS
presentation

- Agile Software Engineering (Scrum)/Software Engineering Process: Introduction and phases of software engineering, classic procedure and process model of software development at a glance, agile software engineering, Scrum, other agile methods
- Software Engineering Project/Coding Project: Introduction App or web programming, project planning, application creation, testing and integration/publishing, presentation and discussion

MEL 12 Digital Security

5 ECTS
presentation

- Information Security Management: Importance of IT security, technologies, procedures and measures of IT security, security strategies, security of IT infrastructure, security of IT systems and IT applications, security in networks, security and communication, cryptological procedures and protocols
- IT-Security in Practice: Vulnerability analysis, procedure models for different security incidents, structure and conception of IT security and IT risk managements systems, cooperation and involvement of authorities

MELS 1 Data Mining & Big Data

5 ECTS
term paper

- Big Data in Marketing: Data-based decision making in the digital era, digital marketing and data-driven business, data science & strategy, data architecture, descriptive and diagnostic analytics, platform infrastructure
- Artificial Intelligence in Marketing: Predictive and prescriptive analytics in marketing, machine and deep learning algorithms and tools, AI products and use-case ideation, AI project and product management, data and AI

MELS2 Mobile Apps & Cloud Technologies

5 ECTS
term paper

- Mobile Apps & Cloud Computing: Mobile app design and advanced web technologies, mobile and social app programming, cloud technologies and system design, higher performance computing
- Cross-platform Cloud App Development Project: Research methods applied to mobile and cloud computing (user and market research), mobile and cloud computing technology project (development of a real-time cross-platform social app)

MELS3 Cyber Risk Analysis & Blockchain Systems

5 ECTS
term paper

- Cybersecurity Risk Analysis: Cybersecurity and risk management, security protocols, cloud computing technology and security, cybersecurity governance, cybersecurity in industrial sectors, cybersecurity and ethics, case study
- Blockchain: Differences between Web 3.0 v-a-v current "stateless" Internet, Bitcoin, blockchain and other distributed ledgers, token security, cryptography, Web 3.0 in business and society/applications and use cases, case study

MELS4 Blockchain Systems & Fintech Payment Technologies

5 ECTS
term paper

- Blockchain Systems: Blockchain basics, the future of money and DeFi, stable tokens, privacy tokens, trading tokens, decentralized credit systems, token sales
- Fin Tech Payment Technologies: History of money and payment systems, basic mechanisms of payments, 4 party system, payment networks (national, transnational, international), FinTech, legal foundations

MELS5 Blockchain Systems & Fintech Payment Technologies

5 ECTS
term paper

- Big Data: Big Data in medicine (provider, payer, MedTech, pharma), data categories and quality, central concepts of statistics in evidence-based medicine, data sovereignty as informational freedom design, legal requirements
- Artificial Intelligence: AI in medicine, data mining systems, machine learning, neural networks, interoperability, HL7, DICOM, PACS, icon arrays, electronic medical records, clinical data and privacy, human-robot interaction