

Department	10 Business Administration
Course title	Digital Technology Management: Products, Processes and Systems (MA)*
Hours per week (SWS)	4
Number of ECTS credits	5
Course objective	Intended Learning Outcomes (Skills, Knowledge, Attitude) The students are enabled to <ul style="list-style-type: none">• understand the fundamental principles and architectures of the new digital technologies and apply them in the business context to several areas of the business-technology-stack• analyze the relevance and impact of digital innovation and transformation on distinct business issues in areas like new product development, process management or system architecture and develop solution proposals• analyze and evaluate proposed solutions to digital innovation topics in international business context and present their results professionally.
Prerequisites	
Recommended reading	<ul style="list-style-type: none">• Capgemini Consulting, MIT Sloan Management, 2011. Digital Transformation: A Road-Map for Billion-Dollar Organizations.• Fichman, R.G., Dos Santos, B.L., Zheng, Z. (Eric), 2014. Digital Innovation as a Fundamental and Powerful Concept in the Information Systems Curriculum. MIS Quarterly 38, 329–A15.• Laudon, K.C., Laudon, J.P., 2013. Management Information Systems: Managing the Digital Firm, 13th ed. Prentice Hall.• Laudon, K.C., Traver, C., 2013. E-Commerce 2014, 10 edition. ed. Prentice Hall, Upper Saddle River, New Jersey.• Porter, M.E., Heppelmann, J.E., 2014. How Smart, Connected Products Are Transforming Competition. Harvard Business Review 92, 64–88.• Safrudin, N., Rosemann, M., Recker, J.C., Genrich, M., 2014. A typology of business transformations. The 360° Business Transformation Journal 2014, 24–41.• Turban, E., Volonino, L., Wood, G.R., 2014. Information Technology for Management: Digital Strategies for Insight, Action, and Sustainable Performance, Auflage: Revised. ed. John Wiley & Sons, Place of publication not identified.• Venkatraman, N., 1994. IT-enabled business transformation: from automation to business scope redefinition. Sloan management review 35, 73–73.• Weill, P., Woerner, S., 2013. Optimizing Your Digital Business Model. MIT Sloan Management Review.
Teaching methods	<ul style="list-style-type: none">• Lectures• Teaching case study• Presentations by students• Presentations by industry experts• Research cases & expert interviews
Assessment methods	term paper
Language of instruction	English
Name of lecturer	Prof. Dr. Lars Brehm
Email	lars.brehm@hm.edu
Link	

Courses in English

Course Description



Course content

- Definition, types and examples of digital technologies and recent developments
- Fundamentals of enterprise architectures and the business-technology-stack
- Impact of digital technologies on and opportunities by digital technologies in
- New product development and integrated product and service design
- Digital process management (incl. digital process innovation and optimization)
- Business IT systems with focus on enterprise systems
- Management of digital innovation initiatives in companies
- Future trends in digital technologies

Applied methods in Economics and Business administration

Analysis models and methods (research and analysis models):

- market analysis tools, investment analysis, enterprise architecture methods, new product development process models, service design process models, project management models, agile project management, process implementation models, business-technology stack

Quantitative empirical methods (comparative – statistical, mathematical methods, data analysis))

- process analysis (incl. KPIs), process simulation, data modeling

Qualitative and interpretative methods (expert interviews, polls, standardised surveys)

- case study research and methods, case study analysis, expert interviews

Remarks