MBA Module:	Methods & Tools
Key words:	Global Operations Management, Production Systems, Project Management, Scientific Methodology
Module number:	
Target group(s):	1st, 2nd and 3rd semester MBA students (ca. September – February+*1*)
ECTS credits:	7
Language of instruction:	English
Responsible:	Prof. Dr. Siegfried Zürn

Extent of work (hours)

Workload	Contact hours	Self study	Exam preparation
210	105	40	65

Prerequisites:	Participants should have successfully passed the module Operations Management, and should be able to prepare professional presentations. The sub-module Project Management does not require Operations Mgmt. as prerequisite.
Objectives:	This module is designed to give the student deeper knowledge and understanding of global operations management. The student learns about methods and tools for managing operations worldwide and gains the ability to apply these within an industrial company. The student is able to analyse problems and develop solutions.
Module content:	The module covers the following four courses: • Global Operations Management: Handle and solve typical operations problems • Production Systems: Apply the principles to different areas and fields in operations management Project Management: Apply principles and methods of professionally managing projects • Scientific Methodology: How to write an academic paper This module supplies the student with different tools and methods which are important for operations management.
Applicability:	This module gives the student the ability to apply modern methods and tools to challenges in managing operations and performing academic analyses.
Requirements for credits:	Project Management: written exam (60 minutes) Global Operations Management: written exam (30 minutes), study assignment Production Systems: written exam (60 minutes) Scientific Methodology: study assignment Because of the different topics in this module all four exams must be passed in order to receive the ECTS for the whole module.

Submodules and assessment

Submodule 1 of 4	Global Operations Management		
Exam number:	1202013		
Lecturer:	Prof. Dr. Siegfried Zürn		
ECTS credits:	2		
Type of assessment:	Study Assignment and Written Exam (30 minutes)		
Learning objectives:	• Students gain an understanding of various globalization theories and learn to apply them to real-life cases. • Students are able to evaluate the options of internationalization and FDI of a company, including the choice of location. • Students understand the impact of the four areas of operations in supporting a company's strategy and its entire value chain in a globalized economy. • Students are capable to handle and solve typical operations problems to effectively manage processes and costs in an integrated operations approach. • Graduates recognize operations as a major issue to increase sales and profit of an international organization		
Methods:	Presentation of the lecturer, discussions, analysing real life case studies, group work, presentations of participants, exchange of experience.		
Literature:	• A script of the lecture parts will be provided in electronic form • Presentations of students will be provided in electronic form • Selected chapters of the following text books: • Gong, Y.: Global Operations Strategy – Fundamentals and Practice, Springer • Morschett, D., H. Schramm-Klein, J. Zentes: Strategic International Management, Gabler • Heizer, J.; B. Render: Operations Strategy in a Global Environment, Prentice Hall		
Contents:	This course covers the topic Global Operations Management from a management perspective and focuses on the areas of Research and Development (R & D), Purchasing, Logistics/Supply Chain Management and Production/Maintenance as well as their interrelations. It is designed to teach students how to deal with these areas in international corporations. The students will work on and present real-life case studies focusing on different global aspects of operations management. In this respect, the course not only provides the theoretical background but also emphasizes the importance of integrating the four areas to create added value for companies in a global economy.		
Workload 60	Contact hours 30	Self study 10	Exam preparation 20

Submodule 2 of 4	**Production Systems**		
Exam number:	1202014		
Lecturer:	Prof. Dr. Siegfried Zürn		
ECTS credits:	2		
Type of assessment:	Written Exam (60 minutes)		
Learning objectives:	• Students obtain an overview about the main parts of Lean Management • Students are able to implement lean management methods for success factors in different companies • Graduates understand the principles and importance of production systems		
Methods:	Presentation of the lecturer, discussions, hands-on exercise, case studies and company visits.		
Literature:	• Liker, J.: The Toyota Fieldbook, McGraw-Hill • Dennis, P.: Lean Production Simplified, Prod.Press Additional: • Liker, J.: The Toyota Way, McGraw Hill • Study assignments, script and cases will be provided in electronic form		
Contents:	Starting with the Toyota Production System the Lean Management concept is presented and discussed. According to a normal production sequence the success factors will be investigated to find out the impact and the contribution of Lean Management. The students will apply Lean Management concepts in a lab-scale production exercise.		
Workload 60	Contact hours 30	Self study 15	Exam preparation 15

Submodule 3 of 4	**Project Management**		
Exam number:	1201014		
Lecturer:	Prof. Dr. Siegfried Zürn		
ECTS credits:	2		
Type of assessment:	Written Exam (60 minutes)		
Learning objectives:	• Students are able to set up an international project and apply the tools • Students acquire knowledge of professional project management. Knowing what a project manager has to do to be successful • Students understand all processes including systematic planning and structuring of projects, project controlling, documentation, presentation, team development and leadership • Students acquire knowledge in all project management areas • Graduates are capable to apply principles and methods of professionally managing projects		
Methods:	Presentation of the lecturer, discussions, exchange of experience, Business Simulation Game		
Literature:	• Larson, E.W.; C.F. Gray: Project Management – The Managerial Process, McGraw-Hill • PMBOK Guide, PMI Institute • Study assignment, script and Business Simulation Handbook will be provided in electronic format		
Contents:	• Project lifecycle and analysis • Project Management Processes • Project Management Knowledge Areas • Integration Management • Scope Management • Time Management • Cost Management • Quality Management • HR Management • Communications Management • Risk Management • Background, functions and responsibilities of a project manager • Documentation, reporting, presentation, decision making		
Workload 60	Contact hours 30	Self study 10	Exam preparation 20

Submodule 4 of 4	Scientific Methodology		
Exam number:	1203001		
Lecturer:	Prof. Dr. Andrew Borchers		
ECTS credits:	1		
Type of assessment:	Study Assignment		
Learning objectives:	In order to write an academic paper or a master's thesis, students have to fulfil certain criteria. They learn how to: • structure a scientific study • write an academic paper in a scientific manner • know which formalities they have to fulfil		
Methods:	Presentation of the lecturer, questions & answers, individual practise of writing an academic paper, group study assignment on literature review through analysis and research.		
Literature:	• Committee on Graduate Training in Scientific Writing, Bethesda • Ebel H.F., C. Bliefert, W.E. Russey: The art of Scientific Writing: From Student Reports to Professional Publications, Wiley-VCH • Malmfors, B., Ph. Garnsworthy, :m. Grossman: Writing and Presenting Scientific Papers, Nottingham University Press • Turabian, K.L.: A Manual for Writers of Term Papers, Theses, and Dissertations: Chicago Style for Students and Researchers, University of Chicago Press		
Contents:	• Preparations • Structure of a scientific work • Formal requirements • Writing techniques • Outcome		
Workload 30	Contact hours 15	Self study 5	Exam preparation 10