

HOCHSCHULE FURTWANGEN UNIVERSITY				
Course of studies: Business Consulting Master				
Title	Special Topics in Operations and Supply Chain Management			
Lecturer	Prof. Dr. Thomas Marx			
Schedule	1st Semester	2 SWS	3 Credits	Elective Subject
Workload	total 90 h	presence 30 h	preparation and after-work 45 h	examination and preparation 15 h
Level	<ul style="list-style-type: none"> • Computer Science: low • Business Administration: low • Basic Skills: medium • Key Qualifications: medium 			
prerequisites	none			
Educational Objectives	<ul style="list-style-type: none"> • Understanding the main issues of Operations and Supply Chain Management • Understanding special topics in deepness • Understanding interactions and dependencies of functions • Setting a broad base for understanding overall relationships 			
Content	<ul style="list-style-type: none"> • Process design, special topics: WIP, utilization, Little's law, Pareto charts • Locating facilities, special topics: balancing capacities, break even analysis of capacity expansion, Cost-Profit-Volume analysis • Managing constraints, special topics: Theory of constraints (TOC), Drum-Buffer-Robe (DBR), Product mix decisions • Capacity planning, special topics: Overall equipment effectiveness (OEE), Cost Volume Analysis • Inventory Management, special topics: Economic order quantity (EOQ), Economic production quantity, ABC Analysis, holding cost, ordering cost, working capital cost, quantity discounts, reorder level, lead time distribution • Forecasting, special topics: Linear regression, multiple regression, seasonal components and fluctuations, mean squared error, MAD, MAPD, tracking signal • ERP Systems, special topics: SOP, MPS, MRP, BOM, MRP Netting process, backward scheduling, Available to promise, lead times, lot sizing rules • Project Management, special topics: Work breakdown structures, activity on nodes network, earned-value control, budgeted cost of work scheduled, actual cost of work performed, schedule and cost variance, CPI, SPI, CPM, critical path, float, activity slack, crashing networks 			
Recommended Textbooks	<p>Stevenson, William (2012): Operations Management, 11th Edition, McGraw-Hill, ISBN: 13 9780077133016</p> <p>Krajewski, Lee; Ritzman, Larry; Malhotra, Manoj: Operations Management, 9th Edition, Pearson, ISBN: 13: 978-0-13-245891-7</p> <p>Russell & Taylor: Operations Management, 6th Edition, Wiley, ISBN: 13 978-0-470-09515-7</p> <p>Slack, Nigel; Chambers, Stuart; Johnston, Robert; Operations Management, 7th Edition, Prentice Hall, ISBN 978-0-273-73046</p>			
Teaching Methods	<ul style="list-style-type: none"> • Lectures • Practical Exercises 			
Grading	<ul style="list-style-type: none"> • Written examination 70 % • Seminar presentation 30 % 			