Syllabus

Course Description

Course Title	Operations Management
Course Code	27342
Course Title Additional	
Scientific-Disciplinary Sector	ECON-07/A
Language	German
Degree Course	Bachelor in Economics and Management
Other Degree Courses (Loaned)	
Lecturers	Prof. Dr. Rudolf Heinrich Kuhn, Heinrich.Kuhn@unibz.it https://www.unibz.it/en/faculties/economics-management/academic-staff/person/977
Teaching Assistant	
Semester	First semester
Course Year/s	3
CP	6
Teaching Hours	36
Lab Hours	9
Individual Study Hours	
Planned Office Hours	
Contents Summary	The Operations Management course covers the modern concepts of production and logistics management, service operations and supply chain management and covers the following topics: Project planning, plant/warehouse siting and production facility design Medium and short-term production planning and just-in-time systems Inventory management, transport planning and route planning for

	vehicles
Course Topics	The course is part of the subject-specific teaching programme and belongs to the Department of Business Administration. The course provides an introduction to modern methods of operations management (production and logistics management as well as service operations). Students will learn the main approaches to decision support in the design and operation of production and logistics systems in industrial and service operations. The main aspects of service operations are discussed. The following contents are covered, among others: 1. conceptual foundations of production, logistics and supply chain management (SCM) 2. models and model-based planning, linear optimisation 3. project planning (network planning technique) 4. basics of network planning 5. location planning on the level 6. location planning for given potential locations 7. configuration and operation of flow production systems and production centres (production islands) 8. basics of sales planning 9. time series-based demand forecasting 10. aggregated production planning (medium-term production planning) 11. determination of material requirements 12. lot size and order quantity planning 13. inventory management and safety stocks 14. round trip and route planning
Keywords	Network planning, production programme planning, resource planning, batch size planning, logistics
Recommended Prerequisites	The target group is 2nd and 3rd year students on the Bachelor of Science in Economics and Management Sciences (Laurea di primo livello). Basic knowledge of general business administration is required.
Propaedeutic Courses	
Teaching Format	Classroom teaching with interactive content and exercises Discussions, exercises, case studies and homework
Mandatory Attendance	Not mandatory but recommended

Specific Educational Objectives and Learning Outcomes	ILO (Intended Learning Outcomes) ILO 1 Knowledge and understanding ILO 1.1 Knowledge of the methods of corporate decision-making and strategic management ILO 1.2 Understanding of social responsibility, consumer protection, sustainable marketing ILO 1.3 Knowledge of concepts, models and tools for critically analysing business and corporate strategies ILO 2 Ability to apply knowledge and understanding ILO 2.1 Be able to correctly apply management principles and theoretical models as well as empirical analytical tools to complex problems in typical management situations in the appropriate context ILO 2.2 be able to apply appropriate concepts, models, tools and techniques to analyse markets, market strategies, programmes and activities in teamwork and communicate research findings in accordance with international professional standards in three languages: Italian, German and English ILO 3 Making judgements ILO 3.1 select the most appropriate quantitative and qualitative methods of analysis ILO 3.2 combine information and analytical methods, also using modern software packages, in a logical reasoning process to find a solution ILO 4 Learning skills ILO 4.1 critically analyse and integrate data, information and future experiences, including using advanced software packages
Specific Educational Objectives and Learning Outcomes (additional info.)	After completing the course, students will - be familiar with the basic approaches of modern production and logistics management as well as service operations (knowledge) and - understand the central role these approaches play in solving

	decision-making problems in the area of production and logistics in production and service operations (understanding) and - have the ability to apply the methods learnt in operational practice (application of knowledge and understanding).
Assessment	Written examination and project work: Written examination with examination questions (ILOs assessed: 2, 3) and written group work (case studies and homework) (ILOs assessed: 1-4) Case studies and homework can also be completed without being present.
Evaluation Criteria	(1) Final exam with 70%, (2) case studies and homework with 20%, (3) participation with 10%. Examination (1) must be completed with a positive grade regardless of all other performances. Participation (3) can be replaced by a separate term paper for students who do not attend the lectures.
Required Readings	Günther, H.-O. and H. Tempelmeier, Supply Chain Analytics, 13th ed., Norderstedt, (Books on Demand) 2020; formerly Günther/Tempelmeier, Produktion und Logistik (Every participant should have this book available.) Günther, H.-O. and H. Tempelmeier, Übungsbuch Supply Chain Analytics: Operations Management und Logistik, 10th ed., Norderstedt (Books on Demand) 2020
Supplementary Readings	Chopra, S., Supply Chain Management: Strategy, Planning, and Operation, 7th edition, Upper Saddle River (Prentice Hall) 2018. Bordoloi S., Fitzsimmons, J.A., Fitzsimmons, M.J., Service Management: Operations, Strategy, Information Technology, 10th edition, Boston (McGraw-Hill/Irwin) 2022. Nahmias, St., Production and Operations Analysis, 8th edition, Boston (McGraw Hill) 2021. Render, B.; R.M. Stair and M.E. Hanna, Quantitative Analysis for Management, 14th edition, Upper Saddle River (Prentice Hall),

	2024. Silver, Edward A., David F. Pyke and Douglas J. Thomas, Inventory and Production Management in Supply ChainsSystems, Taylor & Francis, 4th, 2017 Tempelmeier, H., Helber, S., und H. Kuhn (2023). Konfigurationsplanung von Produktionssystemen. In: Furmans, K., Henke, M., Tempelmeier, H., ten Hompel, M., Schmidt, T. (eds) Handbuch Logistik. Springer Vieweg, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-54476-7_11-1
Further Information	The slides for the course, exercise material and sample exams will be made available.
Sustainable Development Goals (SDGs)	Quality education, Decent work and economic growth, Partnerships fot the goals, Responsible consumption and production, Climate action, Industry, innovation and infrastructure