

OPM 561	Production Management: Lean Approaches and Variability
Language	English
Aim of module	<p>This course introduces planning tasks for the design and management of production systems from the strategic to the operational level. The first part of the course deals with a classification of different production systems and the characterization of design problems for flow production systems. We discuss lean production principles and the influence of variability on performance measures. The second part of the covers control and scheduling decisions.</p> <p>This course aims to provide insights into the key decisions regarding the design and management of lean production systems. For this purpose, quantitative models for the performance analysis and optimization of such production systems are discussed, as well as several solution approaches for different planning tasks are covered. Selected problems are implemented and solved using standard software.</p>
Learning outcomes	<p>After this course the student will</p> <ul style="list-style-type: none"> • have skills for quantitative planning in the field of production management, • have an overview of requirements, objectives and key concepts in lean production management, and • understand reasons and effects of variability in operations management
Prerequisites	<p>Formal: None</p> <p>Recommended: Basic knowledge in operations management (e.g. B.Sc. course "Produktion" or "OPM 301 - Operations Management"), basic knowledge in mathematics (including linear programming) and in statistics (probability distributions)</p>
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