## **Module 5217 Production and Technology**

1	Module Number 5217	Study Programme IM (MBA)	Semester 2	Offered in  ☐ WS区 SS	<b>Duration</b> 1 semester	Module Type Compulsory	Workload (h) 180	ECTS Points 6
2	Courses		Teaching and Learning Forms		Contact Time		Self-Study Time	Language
					(SWS)	(h)	(h)	
	a) Production Systems		Lecture, lab, cases, company visits		2	30	30	English
	b) Technology Management		Lecture, presentation		2	30	30	English
	c) Sustainability Management		Lecture, exercises		2	30	30	English

## 3 Learning Outcomes and Competences

Once the module has been successfully completed, the students

#### **Knowledge and Understanding**

- understand and know the principles and importance of different production systems (Production Systems)
- understand and know the principles of technology management (Technology Management)
- · know the influence of sustainability aspects on the management and global level (Sustainability Management)

### Use, Application and Generation of Knowledge

#### Use and Transfer

- apply methods and tools for managing technology worldwide
- apply lean methods to within an industrial company
- integrate and foster sustainability aspects in the management of industrial companies

## Scientific Innovation

• analyse problems and develop solutions

## **Communication and Cooperation**

- · present contents and discuss them
- cooperate in finding solutions to optimize job-floor management

#### Scientific Self-Conception/ Professionalism

take different perspectives and points of view on a given situation, weigh them up against each other and make an
assessment how and in which steps a lean implementation should be done

#### Methods

• Presentation of the lecturer, discussions, real life case studies, company visit, hands-on exercise (lab), group work, presentations of participants, exchange of experience

## 4 Contents

The module covers the following three courses:

- Production Systems: Apply the principles to different areas and fields in operations management
- Technology Management: Handle and solve typical tasks in managing technology and innovation
- Sustainability Management: Integrate sustainability aspects and requirements into operations management

This module supplies the student with different tools and methods which are important for operations management

## 5 Participation Requirements

recommended: Participants have knowledge of the foundations of the modules "Data Analytics and Information Management" and "Operations"

# Examination Forms and Prerequisites for Awarding ECTS Points

• Written exam (incl. case studies) graded; Mid-terms (written, graded) will be obligatory

## 7 Further Use of Module

This module lays the foundation for modules "Sustainable Management" and "Master's Thesis"

#### 8 Module Manager

Prof. Dr. Siegfried Zürn



# **Module 5217 Production and Technology**

9	Literature Please see the specific course descriptions
10	<b>Last Updated</b> 25.10.2019