MASTER OF SCIENCE
IN ENGINEERING

Module Description, available in: EN

Servitization of Manufacturing

General Information

Number of ECTS Credits

3

Module code

TSM_ServMan

Valid for academic year

2024-25

Last modification

2019-11-07

Coordinator of the module

Shaun West (HSLU, shaun.west@hslu.ch)

Explanations regarding the language definitions for each location:

- Instruction is given in the language defined below for each location/each time the module is held.
- Documentation is available in the languages defined below. Where documents are in several languages, the percentage distribution is shown (100% = all the documentation).
- The examination is available 100% in the languages shown for each location/each time it is held.

	Lausanne			**Lugano**	**Zurich**		
Instruction					**X** E 100%		
Documentation					**X** E 100%		
Examination					**X** E 100%		

Module Category

TSM Technical scientific module

Lessons

2 lecture periods and 1 tutorial period per week

Entry level competences

Prerequisites, previous knowledge

Please read the following books before joining the class:
Chrisitan Kowalkowski & Wolfgang Ulaga. Service Strategy in Action: A Practical Guide for Growing Your B2B Service and Solution Business. March 2017. ISBN: 9780692819104.
http://servicestrategyinaction.com

Editors: **Kohtamäki**, M., **Baines**, T., **Rabetino**, R., **Bigdeli**, A.Z. (Eds.). (2018). Practices and Tools for Servitization -Managing Service Transition. Palgrave.

https://www.palgrave.com/us/book/9783319765167

Brief course description of module objectives and content

This module will help students to understand how a manufacturer changes its business model to provide a holistic solution to the customer, helping the customer to improve its competitiveness, rather than just engaging the sale of product. Much of the course is based around the transition from pure products to provide product service systems in basic and advanced forms.

Aims, content, methods

Learning objectives and acquired competencies

- To gain an appreciation of the role of servitization in the competitive landscape
- To create innovative value propositions by designing new service offerings and by drawing the customer journey
- To design an integrated ecosystem for services and products
- To understand the move towards a service mind-set
- To develop price strategies for services
- To manage the core processes for successful service delivery
- To manage risks and business benchmarking to identify improvement areas

Contents of module with emphasis on teaching content

Lecture 1 Part 1 Introduction to the services for product firms

Based on chapter 1 of the book "Modern Industrial Services".
- Why services are important for a product firm
- Product service systems and servitization
- The journey to services
- Learning to understand complex systems
- Seven barriers stopping firms from moving to services

Lectures 2-9 Part 2 - Service delivery for value capture, Shaun West

Based on Chapter 2 of the book "Modern Industrial services".
- Customers
- Organizational structure and culture
- Knowledge and information
- Products and activities
- Competitors, suppliers and partners
- Economics and finance
- Society and the environment.
- Building your own servitization roadmap (Ch3)

Lectures 9-14 Part 3 - Service design for value creation

- Customer value proposition in services
- Customer ecosystems and market segmentation
- Customer journey mapping and blueprinting
- Service selling and pricing
- Modularity in services
- Customer business processes
- Integration of IoT into customer value propositions

Teaching and learning methods

- Lectures, book and videos
- Group work, presentation and discussion of case studies
- Self-study of papers and analysis of business case studies

Note: individual and group work will contribute to the final exam grade.

Literature

- West S., Gaiardelli, P., & Saccani, N. (2022). Managing Industrial Services: A Cookbook for Design and Delivery. Springer. Cham. https://link.springer.com/book/10.1007/978-3-030-80511-1

- Annarelli, A., Battistella, C., & Nonino, F. (2019). The Road to Servitization. https://doi.org/10.1007/978-3-030-12251-5

- Timothy Baines, Howard Lightfoot. Made to Serve: How Manufacturers can Compete Through Servitization and Product Service Systems. April 2013. ISBN: 978-1-118-58531-3
http://www.aston-servitization.com/news/details/19/made-to-serve-how-manufacturers-can-compete-through-servitization
- Thomas Fischer, Heiko Gebauer, Elgar Fleisch Service Business Development: Strategies for Value Creation in Manufacturing Firms. March 2014. ISBN: 9781107652071
http://www.cambridge.org/ch/academic/subjects/management/strategic-management/service-business-development-strategies-value-creation-manufacturing-firms.
- Chrisitan Kowalkowski & Wolfgang Ulaga. Service Strategy in Action: A Practical Guide for Growing Your B2B Service and Solution Business. March 2017. ISBN: 9780692819104.
http://servicestrategyinaction.com

Assessment

Certification requirements

Module uses certification requirements

Certification requirements for final examinations (conditions for attestation)

All students must have successfully competed both the individual and group work.

Individual and group work will contribute to the final exam grade.

Basic principle for exams

As a rule, all the standard final exams for modules and also all resit exams are to be in written form

Standard final exam for a module and written resit exam

Kind of exam

written

Duration of exam

120 minutes

Permissible aids

Aids permitted as specified below:

Permissible electronic aids

Open book exam

- Calculator
- Class notes
- Dictionary
- Case study provided for the exam

Other permissible aids

No other aids permitted

Special case: Resit exam as oral exam

Kind of exam

oral

Duration of exam

30 minutes

Permissible aids

Aids permitted as specified below:

Permissible electronic aids

Calculator

Class notes

Dictionary

Case study provided for the exam

Other permissible aids

No other aids permitted