

Valid from 2025.HS

<b>Module description: Business, Production and Service Transformation</b>	
<b>Module Code</b>	w.MA.XX.BUPAST.23HS
<b>ECTS Credits</b>	6
<b>Language of Instruction/Examination</b>	English
<b>Module Description</b>	<p>The module will build on the general principles of operations management, i.e., the design and control of efficient material and resource flows for the generation/ production of products and services. The successful implementation of the guiding principles of circular economy to reduce, re-use, or refuse products will require new business models. Instead of selling a product or equipment, companies will need to offer sharing platforms to business to customer (B-2-C) and business to business (B-2-B) customers, where the use of the product against payment is shared. Alternatively, companies can replace the straight sale of machinery and equipment with new ownership models where the customers/users pay according to use and volume (pay-per-use), or quality (pay-per-performance) or a combination on the two. Module content will include the transition from traditional linear business models to the above-mentioned service-oriented business models, including aspects of revenue and profit splits both within and among the suppliers. The module will also address the financial implications for the suppliers, especially regarding the profit &amp; loss statement, the balance sheet, and for the generation of operational cashflow. Operations management in a circular economy setting is even more challenging owing to the design, planning, and implementation of the circularity of the material flows. In case-based settings, the module will address the complete production cycle from (raw) materials, efficient and timely production, to disassembly, refurbishment, reuse, and regeneration, including quality assurance, traceability issues, and viable cost structures. Students will also have the opportunity to engage with traditional production companies as well as start-ups of new circular economy products and services.</p>
<b>Organizational Unit</b>	International Management Institute
<b>Module Coordinator</b>	Jochen Wulf
<b>Deputy Module Coordinator</b>	Helen Vogt
<b>Program and Specialization</b>	<ul style="list-style-type: none"> <li>• Circular Economy Management</li> </ul>
<b>Legal Framework</b>	Academic Regulations MSc in Circular Economy Management dated 02.06.2022, Appendix to the Academic Regulations for the degree program in Circular Economy Management, first adopted on 23.09.2022
<b>Module Category</b>	<b>Module Type</b> Compulsory Elective
<b>Prerequisite Knowledge</b>	<ul style="list-style-type: none"> <li>• Value chain principles</li> <li>• Political, social, economic, and legal considerations related to business transformation in the circular economy</li> <li>• Stakeholder management</li> </ul>
<b>Contribution to Program Learning Objectives (by the concerned Module)</b>	<ul style="list-style-type: none"> <li>• Professional Competence</li> <li>• Methodological Competence</li> <li>• Social Competence</li> <li>• Self-Competence</li> </ul>

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<b>Contribution to Program Learning Objectives</b>	<p><b>Professional Competence</b></p> <ul style="list-style-type: none"> <li>• Knowing and Understanding Content of Theoretical and Practical Relevance</li> <li>• Apply, Analyze, and Synthesize Content of Theoretical and Practical Relevance</li> <li>• Evaluate Content of Theoretical and Practical Relevance</li> </ul> <p><b>Methodological Competence</b></p> <ul style="list-style-type: none"> <li>• Problem-Solving &amp; Critical Thinking</li> <li>• Scientific Methodology</li> <li>• Work Methods, Techniques, and Procedures</li> <li>• Information Literacy</li> <li>• Creativity &amp; Innovation</li> </ul> <p><b>Social Competence</b></p> <ul style="list-style-type: none"> <li>• Written Communication</li> <li>• Oral Communication</li> <li>• Teamwork &amp; Conflict Management</li> <li>• Intercultural Insight &amp; Ability to Change Perspective</li> </ul> <p><b>Self-Competence</b></p> <ul style="list-style-type: none"> <li>• Self-Management &amp; Self-Reflection</li> <li>• Ethical &amp; Social Responsibility</li> <li>• Learning &amp; Change</li> </ul>
<b>Module Learning Objectives</b>	<p>Students...</p> <ul style="list-style-type: none"> <li>• understand the concepts of service dominant logic and servitization. By the end of this course, learners should be able to define service dominant logic and goods dominant logic, understand the service continuum, and differentiate between value in exchange and value in use.</li> <li>• comprehend the three perspectives on service value. Learners should be able to conceptualize provider, customer, and environmental value across the service lifecycle.</li> <li>• identify the link between servitization and circularity. Learners should be able to interlink service patterns with R-principles and understand the synergies of pay-per-use/pay-per-performance and circularity.</li> <li>• master financial steering. Learners should be able to conduct strategic and financial planning and successfully execute these plans for the implementation of circular services in complex supply chains.</li> <li>• navigate operational challenges in circular service businesses. Learners should understand the different operational challenges and management approaches related to circular services.</li> </ul>
<b>Module Content</b>	<p><b>Service Transformation</b></p> <ul style="list-style-type: none"> <li>• Service dominant logic and servitization</li> <li>• Service valuation</li> <li>• Link between servitization and circularity</li> <li>• Ecosystem design for circular services</li> </ul> <p><b>Business Transformation</b></p> <ul style="list-style-type: none"> <li>• Business case design for circular services</li> <li>• Modeling financial statements and cash flows</li> <li>• Financial steering of circular service businesses</li> </ul> <p><b>Transformation of Production</b></p> <ul style="list-style-type: none"> <li>• Operational challenges in extending the loop</li> <li>• Operational challenges in recycling</li> <li>• Operational challenges in refurbishment &amp; redistribution</li> <li>• Operational challenges in remanufacturing</li> </ul>
<b>Links to other modules</b>	<p>This module is linked to the following modules:</p> <ul style="list-style-type: none"> <li>• w.MA.XX.TEAS.23HS</li> <li>• w.MA.XX.DPG.23HS</li> <li>• w.MA.XX.BMCE.23HS</li> <li>• w.MA.XX.SCVC.23HS</li> <li>• w.MA.XX.SSEC.23HS</li> </ul>

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Digital Learning Resources	<ul style="list-style-type: none"><li>Online game</li></ul>																																	
Methods of Instruction	<ul style="list-style-type: none"><li>Problem-Oriented Teaching</li><li>Case Studies</li><li>Lecture</li><li>Business game simulation</li><li>Teaching case</li></ul>		Social Settings Used: <ul style="list-style-type: none"><li>Group Work</li></ul>																															
Type of Instruction	<table><tr><td></td><td>Classroom Instruction</td><td>Guided Self-Study</td><td colspan="2">Autonomous Self-Study</td></tr><tr><td>Lecture</td><td>56 h</td><td>-</td><td colspan="2"></td></tr><tr><td>Excercise</td><td>-</td><td>-</td><td colspan="2"></td></tr><tr><td>Project Work</td><td>-</td><td>-</td><td colspan="2"></td></tr><tr><td>Seminar</td><td>-</td><td>-</td><td colspan="2"></td></tr><tr><td>Total</td><td>56 h</td><td>0 h</td><td colspan="2">124 h</td></tr></table>					Classroom Instruction	Guided Self-Study	Autonomous Self-Study		Lecture	56 h	-			Excercise	-	-			Project Work	-	-			Seminar	-	-			Total	56 h	0 h	124 h	
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Classroom Attendance Requirement	Other  Attendance is generally required. Exceptions will be announced during the course.																																	
Compulsory Reading	<ul style="list-style-type: none"><li>Lusch RF, Vargo SL. The service-dominant mindset. In: Service-Dominant Logic: Premises, Perspectives, Possibilities. Cambridge University Press; 2014:3-30.</li></ul>																																	
Recommended Reading																																		
Comments																																		