

<b>TITLE OF THE COMPETENCE UNIT:</b>	
<b>Introduction to Sustainable Materials in Product Design</b>	<b>Workload:7 hours</b>

Template for setting Learning Outcomes

**OBJECTIVES**

The objectives are: Understand how sustainability and circularity can be integrated into every stage of a products life cycle and how to implement design for sustainability.

In this Unit, learners will...

<b>LEARNING OUTCOMES</b>		
	<b>Upon completion of this unit, the learner will be able to...</b>	
<b>KNOWLEDGE</b>	<b>SKILLS</b>	<b>ATTITUDES</b>
<p>Theoretical/Factual knowledge in:</p> <ul style="list-style-type: none"> <li>• The importance of making sustainable choices.</li> <li>• The key sustainability fundamentals.</li> <li>• The sustainability impacts that can be made at each stage of product design</li> <li>• The options for implementing DfS into practice</li> <li>• Knowledge of Planetary boundaries, sustainable development goals and doughnut economics</li> </ul>	<ul style="list-style-type: none"> <li>• Interpret current and future policies</li> <li>• Define sustainability</li> <li>• Explain circularity and circularity metrics</li> <li>• Define Life Cycle Analysis</li> <li>• Explain the importance of sustainability in the design stage</li> <li>• Describe the impact on sustainability through each phase of the product life</li> <li>• Explain which tools can be used to put DfS into practice.</li> <li>• Demonstrate which tools can be used to put DfS into practice.</li> </ul>	<ul style="list-style-type: none"> <li>• Sensitize peers to the impact of global warming potential and green house gases in the environment</li> <li>• Outline all current and future sustainable policies</li> <li>• Differentiate the three pillars of sustainability</li> <li>• Sensitize peers to circularity and circularity metrics</li> <li>• Show a commitment to what LCAs show them and how to use data</li> <li>• Differentiate Sustainable Development Goals, Planetary Boundaries and doughnut economics and explain what each are used for.</li> <li>• Explain why sustainability is important at the design stage</li> </ul>

		<ul style="list-style-type: none"><li>• Distinguish between different phases of the products life cycle and state how sustainability impacts at each stage</li><li>• Ability to direct and instruct others to existing tools and options for putting DfS into practice.</li></ul>
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**EXTERNAL RESOURCES:**

Microsoft Teams;  
Powerpoint;  
Mentimeter