

Sustainability in the context of transitions

Sustainable development includes many challenges. Companies are facing an increasing number of challenges in their daily business. This course will introduce the many dimensions of sustainable development. A system perspective is central to understanding the potential contribution and impact of technologies. In this course, the students will get an overview of the tools and techniques to evaluate and assess the sustainability of company processes. Hence, the course provides a basis for students to understand the contributions and limitations of the energy transition towards a sustainable society.

Period:	Period 3
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Educational management portal:	moodle.unitus.it
Objectives:	The specific contribution of this course to the endpoints and qualifications of the specialisation programme is: <ul style="list-style-type: none"> • Develop a system thinking mind-set • Develop a set of communicating and visioning skills associated with issues of global change • Foster awareness and literacy to debate the concept of sustainability in order to promote global environmental and social change • Assist in learning efficient and consistent methods in order to effectively explore and give advice to businesses regarding sustainability assessment. • Allow critical reflection upon the role of science and technology in society and understanding this as an ongoing, adaptive process
Programme:	The course will start with an introductory lecture which provides an overview of the course. This will be followed by three main themes: <ol style="list-style-type: none"> i) the fundamentals of Systems Thinking, ii) sustainability challenges iii) assessment. On the basis of this knowledge, tools and insights are offered to assess the potentials and hurdles of technologies and processes needed for a sustainable world. The course integrates the three pillars attributed to the study of sustainability, namely: social, environmental and economic aspects
Pre-requisites:	The course requires basic knowledge in: <ol style="list-style-type: none"> i) mass balances, ii) economic analysis, and iii) social systems.

Study material:

- Lecture slides;
- Reading material;
- Additional resources handed out during the course / made available via Blackboard