



Promoting Life Cycle Thinking in Higher Education

Life-C

Life Cycle Assessment (LCA) is a powerful methodology to evaluate the environmental burdens associated with a product, process, or activity by identifying and quantifying resource consumed and emissions released to the environment. The assessment includes the entire life cycle of the product, process, or activity, encompassing extracting and processing raw materials; manufacturing; transportation and distribution; use, re-use, maintenance; recycling, and final disposal.

LIFE-C Course 2024

“Introduction to life cycle thinking and assessment”

The main objective of the project "Promoting life cycle thinking in higher education" (LIFE-C) is to teach the skills to understand and use life cycle assessment (LCA) analysis of products, enterprises, and services and to promote life-cycle thinking among university students at the faculties of technology and economics. The goal adopted by the Consortium of universities from Polish (Silesian University of Technology), Italy (Unicusano), Greece (NTUA) and Finland (LUT) is achieved by preparing and delivering a modular course in the field of basic and advanced LCA analysis and innovative analyses of the social life cycle assessment S-LCA. The state-of-the-art e-learning course is based on the research and teaching experience of the Partners with teaching based on a combination of theory and practical tasks – challenges for students in the form of project-based learning prepared in consultation with the companies supporting the project.



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The LIFE-C Course aims to deliver to the regular and PhD students the first module of the three developed ones within the LIFE-C Project (<https://life-c.eu>)

Module 1 is titled: *"Introduction to the Life Cycle Thinking and Assessment"* and aims to provide the students with:

- a basic understanding of the Life Cycle Thinking (LCT) and Life Cycle Assessment (LCA);
- skills to apply a general LCA approach to different scenarios;
- knowledge to analyze the results of the LCA in terms of the environmental impacts of products and services;
- understanding the usefulness of LCA
- ability to critically evaluate the results of LCA; develop recommendations for improving the sustainability of products and services.
- *Module 1* is divided into 6 specific sessions with dedicated teaching materials and evaluation tools ready for Students, and the expected delivery time of 30 h, granting 3 ECTS.

The course is offered in mixed in-class and distance-learning mode, according to the following arrangements:

- **Monday 28th October, 14.00-16.00**: introductory lecture – in class/online – Prof. Lidia Lombardi
- **October-December**: recorded lectures and teaching materials available on the Moodle platform of Lappeenranta-Lahti University of Technology (LUT)
- **December**: final lecture: Students will present and discuss the assignments carried out during the course – in class/online – with LIFE-C Teachers.

PhD Candidates and all Students from the Partner Universities and Associated Partner Universities are welcome. To access the LUT Moodle platform a preliminary registration to the Course Module is required, by sending an email to Prof. Lidia Lombardi (lidia.lombardi@unicusano.it), no later than **21.10.2024**.

