

CERTIFICATE COURSE

Fundamentals of Life Cycle Assessments (LCA) for Industrial Products



Life Cycle Assessment as a Holistic Environmental Inspection Method

Learn to represent and quantify material and energy flows relevant to the process as input or output variables in the various life phases of the product, process or service. In addition, you will be able to use the Life Cycle Assessment tool for process optimization decisions that focus on added value.

In Focus

- ▶ Various phases of LCA and their areas of application
- ▶ Autonomous implementation of life cycle assessments
- ▶ Development of standardized methods for account balancing according to DIN norm
- ▶ Interpretation of LCA analyses and evaluation of improvement potentials

Achieving a leading role in environmental protection and thus remaining competitive in the climate policy environment requires many industrial companies to implement decisive measures to reduce environmental impacts. In order to identify suitable activities, a detailed environmental assessment is required: the so-called „Life Cycle Assessment“ offers a widely approved and highly effective method for this purpose.

You are an engineer and/or project manager from the fields of production, environmental management, research and development or strategic management with at least one year of relevant professional experience.

QUICK FACTS

Certificate Course

- ▶ 5 days of attendance
- ▶ 3.200 €
- ▶ English
- ▶ 2 ECTS (50 h. workload)
- ▶ RWTH Executive Certificate

Contact

Mrs. Kim Schönberg
 Program Manager
 further-education@academy.rwth-aachen.de
 Tel.: +49 241 80 97865

COURSE CHARACTERISTICS

| | less | a lot |
|---------------------------|-------|-------|
| Math/statistics | ●—○—○ | |
| Process technology | ●—●—○ | |
| Production optimization | ●—●—● | |
| Competency of methodology | ●—●—● | |
| Practical application | ●—●—○ | |

Sign up now!

www.academy.rwth-aachen.de/en/life-cycle-assessment

Fundamentals of Life Cycle Assessments (LCA): Course Schedule (subject to change)

| Monday | Tuesday | Wednesday | Thursday | Friday |
|---|--|--|--|---|
| <p>Introduction</p> <ul style="list-style-type: none"> ▶ Introduction & expectations ▶ Life Cycle Assessment: introduction & application fields | <p>Phase 3 & 4 of LCA</p> <ul style="list-style-type: none"> ▶ Phase 3: Life Cycle Impact Assessment Overview on and computation of environmental impacts based on LCI results ▶ Phase 4: Interpretation and Sensitivity ▶ Interpretation and communication of Life Cycle Assessment results | <p>Introduction to a LCA Software</p> <ul style="list-style-type: none"> ▶ Modelling course: LCI ▶ Modelling course: Allocation ▶ Modelling course: Life Cycle Impact Assessment | <p>Examination Case Study</p> <ul style="list-style-type: none"> ▶ Independent LCA study based on the data obtained during the company visit | <p>Prospects of LCA</p> <ul style="list-style-type: none"> ▶ Prospects of LCA ▶ Wrap-up LCA |
| Lunch | | | | |
| <p>Phase 1 & 2 of Life Cycle Assessment</p> <ul style="list-style-type: none"> ▶ Phase 1: Goal & Scope Definition ▶ Phase 2: Life Cycle Inventory (LCI) Theoretical background for data collection, building of an LCI model, software tools & databases | <p>Excursion Company Visit</p> <ul style="list-style-type: none"> ▶ Specific industrial production process in the field of carbon capture and utilisation ▶ Portrayal and implementation of LCA in industrial processes of decision-making and introduction to the case study | <p>Modelling Course: Case Study</p> <ul style="list-style-type: none"> ▶ Conducting an industry-related LCA case study ▶ Example industries: <ul style="list-style-type: none"> - Recycling - Petro - Food - Transport - Energy | <p>CO² avoidance cost curves as decision-making tool</p> <ul style="list-style-type: none"> ▶ Comprehensive communication of LCA results both within the company and towards stakeholders ▶ group work: preparation for final presentation | <p>Examination and Awarding of Certificates</p> <ul style="list-style-type: none"> ▶ Examination (group presentations) ▶ Feedback and Awarding of Certificates |
| Networking-Tip: Social Event | | | | |