

Lifecycle Assessment Courses

All courses are delivered on-line in an asynchronous format for maximum flexibility with participant schedules

Life Cycle Assessment (LCA) evaluates the environmental impacts of products across their entire life cycle, from raw material extraction to end-of-life. Sustainability, including the circular economy and product life cycle management, are top technical challenges and priorities for many companies and sectors, which has increased demand for professionals with sustainability expertise.

These non-credit courses were developed in collaboration with industry and targeted to technical professionals and students with upper college level mathematical and engineering or scientific background who want to gain knowledge needed to understand environmental impacts, navigate changing environmental requirements, and support corporate sustainability goals.

Organizations across the supply chain can benefit from LCA expertise: from large companies that outsource their LCA and want in-house knowledge; small to medium companies with a few in-house professionals interested in additional training; growing businesses seeking practical sustainability training; or suppliers responding to increasing requests for product lifecycle data. This series of courses prepares professionals to meet evolving market demands.

Lifecycle Assessment 1: Principles and Application

Introductory overview of life cycle thinking, and Life Cycle Assessment (LCA) for evaluating environmental impacts of products and processes. Students learn LCA phases, ISO standards, results interpretation, and basic modeling for sustainable decision-making. Many of the case studies and modeling will focus on the polymer industry.

Lifecycle Assessment 2: Circular Economy and Recycling Models

This course builds on the fundamentals of Life Cycle Assessment (LCA) and explores its application in evaluating and supporting Circular Economy (CE) strategies. Students will learn the principles of the circular economy, methods for measuring circularity, and the role of LCA in assessing the environmental performance of circular systems. The course covers multifunctional processes, allocation methods, system expansion, recycling modeling approaches, and relevant ISO standards. Through practical examples and case studies, students will learn how to use LCA to evaluate recycling systems and assess the sustainability performance of circular economy strategies.

Lifecycle Assessment 3: Beyond Conventional, AI, and Emerging Methods

(Coming Soon)

[Stack all three courses for a Certificate in Lifecycle Assessment](#)

Instructor: Naser S. Matin holds a PhD in physical chemistry, providing a solid scientific foundation for his work in Life Cycle Assessment (LCA). His LCA experience has been developed through years of dedicated work in chemistry, energy, academia, and environmental research and development. He is a member of the American Center for Life Cycle Assessment (ACLCA) and is certified as a Life Cycle Assessment Certified Professional (LCACP) by The American Center for Life Cycle Assessment.

Time commitment: 2 hr/week online content, including ~1hr/week homework for 16 weeks

Tuition/Fee: \$2,500/course

Students and industry professionals may qualify for partial grant-funded tuition benefits

Deadlines for tuition benefits application:

Fall - August 15

Spring - January 5

Summer – May 28

[Register here for LCA courses](#)

Offered through the University of Akron UAx Extended Campus in collaboration with Kent State University

For More Information or Questions - contact wise@uakron.edu



SCAN QR CODE TO APPLY
FOR LCA TUITION BENEFITS



Workforce Initiative for a Sustainable
Environment (WISE)