BioProcess Digital

PROFESSIONAL COURSES IN BIOPROCESS ENGINEERING

ONLINE COURSE

On-demand

COURSE FEE

300 € per session

COURSE ORGANIZATION

Course divided in 3 sessions

Sessions scheduling: suggested one per week

Effort: 3 - 6 h per session

COURSE DESCRIPTION

The course provides an introduction to the scope and methodology of Life Cycle Assessment (LCA) for the environmental evaluation of bioprocesses. It covers the materials and energy inventories, and the evaluation of processes impacts indicators.

The course offers a combination of methodological presentations, and a case study project on the LCA of an enzyme production process.

INSTRUCTOR

Jean-Marc ENGASSER, BioProcess Digital

DIGITAL LEARNING

- Learning platform with course resources
- Live or recorded slideshow videos
- LCA study on spreadsheet templates with self-corrections and guides
- Online collective or one-to-one tutoring

COURSE PROGRAM
Session 1: LCA methodology - Material inventory Life Cycle Assessment methodology Industrial bioprocesses Enzyme process LCA project: Material inventory
Session 2: Energy inventory Principles of bioprocess energy inventory Enzyme process LCA project: Energy inventory
Session 3: Environmental impacts indicators Environmental impacts indicators for Primary Energy Consumption, Water consumption, and Global Warming Potential Impacts factors of material and energy resources Enzyme process LCA project: Impacts indicators