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 teaches the methodology for the design and cost evaluation of a monoclonal antibody production process by recombinant CHO cells.

It involves the evaluation of the production and purification process material balance, equipment sizing, energy consumption, investment cost and antibody production cost.

INSTRUCTOR

Jean-Marc Engasser, BioProcess Digital

DIGITAL LEARNING

- Learning platform with course resources
- Live or recorded slideshow videos
- Spreadsheet simulators with guides for bioreactor optimization
- Online collective or one-to-one tutoring

COURSE PROGRAM

SESSION 1 : PROCESS MATERIAL BALANCE

- Flowsheet of the mAbs production and purification process
- Materials consumption of the upstream and downstream process sections
- Antibodies and effluents productions

SESSION 2 : PROCESS EQUIPMENT SIZING AND ENERGY CONSUMPTION

- Sizes of the bioreactor, membrane and chromatography equipment
- Mechanical and thermal energy consumption

SESSION 3 : INVESTMENT AND PRODUCTION COST

- Investment cost for the production plant
- Material, energy, equipment utilization and labor costs
- Sentivity analysis of the mAbs production cost