

Dynamic Optimisation and Model Validation in gPROMS

Course Programme

Day 1

- 09:00** Registration
- 09:15** Introduction and course overview
- 09:30** Tutorial and hands-on session: Motivation for dynamic optimisation
- 09:45** Tutorial: Dynamic Optimisation and its applications
 - Tutorial: An Introduction to the mathematics of dynamic optimisation
- 10:30** Break
- 10:45** Tutorial: Specifying and solving dynamic optimisation problems in gPROMS
- 11:00** Hands-on session: Optimising the operation of a semi-batch reactor
- 12:30** Lunch
- 13:30** Tutorial: Advanced dynamic optimisation in gPROMS
- 14:00** Hands-on session: Optimising the operation of a semi-batch reactor including initial conditions
- 15:15** Tutorial: Mixed integer optimization
- 15:45** Hands-on session: Optimising the reactor size and the operation of a semi-batch reactor
- 17:00** Close

Day 2

- 09:00** Tutorial: Parameter estimation
Tutorial: Specifying and solving parameter estimation problems in gPROMS
- 10:30** Break
- 10:45** Hands-on session: Estimating the parameters of a kinetic reaction scheme
- 12:00** Lunch
- 13:00** Tutorial: Experiment design
Tutorial: Specifying and solving experiment design problems in gPROMS
- 14:00** *Hands-on session: Designing experiments for a fed-batch fermentation*
- 16:00** Information on gPROMS documentation, services and support
Completion of evaluation questionnaires
- 16:15** Hands-on workshop session (optional)
- 17:00** Close