



OFERTA D'ACTIVITATS FORMATIVES

Programa de doctorat:

ENGINYERIA DE PROCESSOS QUÍMICS

Code: EPQ 31-22-23

TÍTOL ACTIVITAT:

PROCESS SIMULATION TOOLS

BREU DESCRIPCIÓ:

Brief introduction to the Process Simulators available to CEPIMA Ph.D. students: UniSim, AspenHYSYS, Aspen Plus, SUMO, etc. (depending on the licenses acquired or renewed each year). Brief introduction to the way to access to these tools, their use and capabilities, and the resources for further learning.

DURADA: 4.0 hores

RESPONSABLE (nom i cognoms): Moisès Graells



OFERTA D'ACTIVITATS FORMATIVES

Programa de doctorat:

ENGINYERIA DE PROCESSOS QUÍMICS

Code: EPQ 32-22-23

TÍTOL ACTIVITAT:

LCA TOOLS

BREU DESCRIPCIÓ:

Brief introduction to the tools for the Life Cycle Assessment (LCA) of processes and products available to CEPIMA Ph.D. students: SimaPro, OpenLCA, Brightway, etc. (depending on the licenses acquired or renewed each year). Brief introduction to the way to access to these tools, their use and capabilities, and the resources for further learning.

DURADA: 4.0 hores

RESPONSABLE (nom i cognoms): Antonio Espuña



OFERTA D'ACTIVITATS FORMATIVES

Programa de doctorat:

ENGINYERIA DE PROCESSOS QUÍMICS

Code: EPQ 33-22-23

TÍTOL ACTIVITAT:

OPTIMIZATION TOOLS

BREU DESCRIPCIÓ:

Brief introduction to the tools for the optimization of processes and supply chains available to CEPIMA Ph.D. students: GAMS, AIMMS, Pyomo, etc. (depending on the licenses acquired or renewed each year). Brief introduction to the way to access to these tools, their use and capabilities and the resources for further learning on solving math programming problems (MILP, MINLP, etc).

DURADA: 4.0 hores

RESPONSABLE (nom i cognoms): Antonio Espuña



OFERTA D'ACTIVITATS FORMATIVES

Programa de doctorat:

ENGINYERIA DE PROCESSOS QUÍMICS

Code: EPQ 34-22-23

TÍTOL ACTIVITAT:

KINETIC MODELS

BREU DESCRIPCIÓ:

Brief introduction to the tools for solving the systems of differential equations (ODEs) involved in the mechanisms of complex reaction systems that available to CEPIMA Ph.D. students: Matlab, Simulink, Python, etc. and the different libraries and toolboxes (depending on the licenses acquired or renewed each year). This also includes the models already developed by CEPIMA as well as the optimization tools for fitting the models to experimental data. Brief introduction to the way to access to these tools, their use and capabilities and the resources for further learning.

DURADA: 4.0 hores

RESPONSABLE (nom i cognoms): Moisès Graells



OFERTA D'ACTIVITATS FORMATIVES

Programa de doctorat:

ENGINYERIA DE PROCESSOS QUÍMICS

Code: EPQ 35-22-23

TÍTOL ACTIVITAT:

CHEMICAL ANALYSIS

BREU DESCRIPCIÓ:

Brief introduction to the experimental methods, tools and equipment for chemical analysis available to CEPIMA Ph.D. students: TOC, DBO, UV/Vis, etc. Brief introduction to the way to operate these equipment units, the techniques involved, and the resources for further learning. This also includes introducing the students to other lab utilities and general services (supply of water, gases, reactants, waste management, etc.) and introducing them to the technical staff.

DURADA: 4.0 hores

RESPONSABLE (nom i cognoms): Montserrat Pérez-Moya



OFERTA D'ACTIVITATS FORMATIVES

Programa de doctorat:

ENGINYERIA DE PROCESSOS QUÍMICS

Code: EPQ 36-22-23

TÍTOL ACTIVITAT:

PILOT PLANT

BREU DESCRIPCIÓ:

Brief introduction to CEPIMA's Advanced Oxidation Process (AOP) pilot plant. Brief introduction to the way to operate the pilot plant, technical details, start-up, monitoring, shutdown, maintenance, sensors and actuators, etc. This training also includes the operational procedures as well as the use of the SCADA system and software (InTouch). This initial training is intended to provide students the initial means for autonomously running preliminary experiments at the pilot plant.

DURADA: 4.0 hores

RESPONSABLE (nom i cognoms): Montserrat Pérez-Moya



OFERTA D'ACTIVITATS FORMATIVES

Programa de doctorat:

ENGINYERIA DE PROCESSOS QUÍMICS

Codi: EPQ 037-22-23

TÍTOL ACTIVITAT:

REUNIONS DE SEGUIMENT

BREU DESCRIPCIÓ:

Reunions periòdiques amb presentacions dels membres integrants del grup de recerca sobre l'estat de desenvolupament dels diferents projectes de recerca i de les diferents tesis doctorals en marxa. Discussió i posada en comú de problemes pràctics, solucions i propostes de millora respecte el desenvolupament de les activitats habituals del grup de recerca, aspectes d'organització, logístics, administratius i incidències que puguin haver esdevingut.

Model d'organització:

Reunió setmanal de tot el grup de recerca. La durada pot ser d'entre una o dues hores en funció dels treballs presentats pels doctorands i doctorandes i la posterior discussió.

DURADA: 1,5 hores/setmana (unes 200 hores durant tot el doctorat)

RESPONSABLE (nom i cognoms): Moisès Graells

Nom del responsable del grup de recerca: Moisès Graells