

**Simulation of Chemical Processes**

Code: 102444  
ECTS Credits: 3

Degree	Type	Year	Semester
2500897 Chemical Engineering	OB	3	2

**Contact**

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**Use of languages**

Principal working language: catalan (cat)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: No

**Teachers**

Borja Solis Duran  
Albert Guisasola Canudas

**Prerequisites**

It is recommended that you have completed the following subjects:

- Chemical reactors
- Transmission of heat
- Separation operations
- Chemical kinetics
- Computer applications

**Objectives and Contextualisation**

Reinforce the bases that govern the main processes of Chemical Engineering: balance of matter and energy in s  
Learn process simulation tools, especially Matlab and Hysys.  
Acquire the necessary simulation skills to solve and solve paradigmatic c  
Apply the simulation tools to predict the behavior of processes.  
Acquire the knowledge necessary to carry out analyzes of sensitivity of p  
Optimization.

**Content**

1. Introduction. Simulation tools

2. Thematic blocks:
  - 2.1. Chemical kinetics
  - 2.2. Systems in non-stationary state.
  - 2.3. Reactors: non-isothermic systems and modeling and simulation of
  - 2.4. Optimization
3. Simulation of complex systems with Hysys (to be confirmed).