Universidad Zaragoza

Year : 2019/20

60655 - Master's Dissertation

Syllabus Information

Academic Year: 2019/20
Subject: 60655 - Master's Dissertation
Faculty / School: 100 -

Degree: 540 - Master's in Industrial Chemistry

ECTS: 9.0
Year: 1
Semester: Annual
Subject Type: Master Final Project
Module: ---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

4.2.Learning tasks

4.3.Syllabus

Students can choose the following research lines for their Master's Dissertation:

- Proposals of new alternative industrial processes to reduce environmental impact.
- Proposals of new alternative industrial processes with a lower energy requirement.
- Proposals of new alternative industrial processes with a lower generation of waste and contaminant residues.
- Proposals of new alternative industrial processes reducing need for raw materials.
- Methods to minimize the environmental impact of industrial processes and energy requirement.
- Proposal of new industrial processes using renewable raw materials.
- Revaluation of industrial waste.
- Representation of industrial processes at laboratory scale (scale-down).
- New Materials with specific applications.

- Design of new catalysts.
- Surface-Covering for industrial applications.
- Determination of relevant chemical-physical properties to the industry.
- Evaluation of the implementation of ISO standards certification.
- Validation methods of analysis used in the chemical industry.
- Batch and continuous analytical process control in the chemical industry.
- Sensors chemical process control in the chemical industry.
- Any other issues related to the development of chemistry in industry.

4.4.Course planning and calendar

4.5.Bibliography and recommended resources