

## Course guides

# 330168 - QIN - Chemistry for Industry

Last modified: 05/05/2020

**Unit in charge:** Manresa School of Engineering  
**Teaching unit:** 750 - EMIT - Department of Mining, Industrial and ICT Engineering.

**Degree:** BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Optional subject).  
BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2016). (Optional subject).

**Academic year:** 2020    **ECTS Credits:** 6.0    **Languages:** Catalan

### LECTURER

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**Coordinating lecturer:** MARIA DOLORS GRAU VILALTA

**Others:** Torra Bitlloch, Immaculada

### DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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#### Specific:

1. (ENG) Comprendre i utilitzar els principis i la seva aplicació en enginyeria de procés i producte, tecnologia energètica i la química a la indústria.
2. (ENG) Desenvolupar la capacitat d'anàlisi en la resolució de problemes.
3. (ENG) Desenvolupar el raonament crític.

#### Transversal:

4. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
5. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.
6. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.

### TEACHING METHODOLOGY

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### LEARNING OBJECTIVES OF THE SUBJECT

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### STUDY LOAD

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Type	Hours	Percentage
Hours large group	45,0	30.00
Hours small group	15,0	10.00
Self study	90,0	60.00

**Total learning time:** 150 h



## CONTENTS

### (ENG) Títol del contingut 1: Introducció

**Full-or-part-time:** 2h

Theory classes: 2h

### (ENG) Títol del contingut 2: L'aigua a la Indústria

**Full-or-part-time:** 50h

Theory classes: 12h

Practical classes: 6h

Self study : 32h

### (ENG) Títol del contingut 3: L'energia a la Indústria Química

**Full-or-part-time:** 23h

Theory classes: 10h

Self study : 13h

### title english

**Description:**

content english

**Full-or-part-time:** 30h

Theory classes: 6h

Laboratory classes: 6h

Self study : 18h

### title english

**Description:**

content english

**Full-or-part-time:** 45h

Theory classes: 12h

Laboratory classes: 6h

Self study : 27h

## ACTIVITIES

### (ENG) TÍTOL DE L'ACTIVITAT 1: RESOLUCIÓ D'EXERCICIS

**Full-or-part-time:** 7h

Theory classes: 4h

Self study: 3h



#### (ENG) TÍTOL DE L'ACTIVITAT 2: QÜESTIONARIS ATENEA

**Full-or-part-time:** 4h

Self study: 4h

#### (ENG) TÍTOL DE L'ACTIVITAT 3: PRESENTACIÓ D'UN CAS D'ESTUDI

**Full-or-part-time:** 10h

Theory classes: 4h

Self study: 6h

#### (ENG) TÍTOL DE L'ACTIVITAT 4: PROVA INDIVIDUAL ESCRITA

**Full-or-part-time:** 14h

Theory classes: 4h

Self study: 10h

## GRADING SYSTEM

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## BIBLIOGRAPHY

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### Basic:

- Martí Deulofeu, J. M. Stenco water treatment = Tratamientos de aguas = Tractaments d'aigües. 4ª ed. Barcelona: Stenco, 2007.
- González Fernández, J. A., coord. Teoría y práctica de la lucha contra la corrosión. . Madrid: Consejo Superior de Investigaciones Científicas. Centro Nacional de Investigaciones Metalúrgicas, 1984. ISBN 8400056701.
- Metcalf and Eddy. Ingeniería de aguas residuales: tratamiento, vertido y reutilización. 3ª ed. Madrid: McGraw-Hill, 1995. ISBN 8448116070.

### Complementary:

- Manual técnico del agua. 4ª ed. Rueil-Malmaison: Degrémont, 1979. ISBN 8430016511.