



# Course guide

## 820525 - EEQ1Q - Experimentation in Chemical Engineering I

Last modified: 06/07/2023

**Unit in charge:** Barcelona East School of Engineering  
**Teaching unit:** 713 - EQ - Department of Chemical Engineering.

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

**Academic year:** 2023    **ECTS Credits:** 6.0    **Languages:** Catalan

### LECTURER

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**Coordinating lecturer:** Montserrat Pérez Moya

**Others:**

Primer quadrimestre:

ALBA ÀGUEDA COSTAFREDA - Grup: T11, Grup: T12

MOISES GRAELLS SOBRE - Grup: T11, Grup: T12

MONTSERRAT PEREZ MOYA - Grup: T11, Grup: T12

Segon quadrimestre:

ALBA ÀGUEDA COSTAFREDA - Grup: M11, Grup: M12

AURELIO CALVET TARRAGONA - Grup: M11, Grup: M12

MOISES GRAELLS SOBRE - Grup: M12

JUANA LALUEZA BARO - Grup: M11

MONTSERRAT PEREZ MOYA - Grup: M11

MARGARITA SÁNCHEZ JIMÉNEZ - Grup: M12

### REQUIREMENTS

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QUÍMICA EN DISSOLUCIÓ AQUOSA - Prerequisit

### DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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**Specific:**

1. Design and manage applied experimentation procedures, particularly for determining thermodynamic and transport properties, and the modelling of phenomena and systems in the field of chemical engineering, such as fluid flow systems, heat and mass transfer operations and the kinetics of chemical reactions and reactors.

**Transversal:**

2. 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.

### TEACHING METHODOLOGY

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### LEARNING OBJECTIVES OF THE SUBJECT

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## STUDY LOAD

Type	Hours	Percentage
Hours small group	60,0	40.00
Self study	90,0	60.00

**Total learning time:** 150 h

## CONTENTS

### (ENG) -Introducció a l'EEQ1

**Full-or-part-time:** 8h

Theory classes: 4h

Self study : 4h

### (ENG) -Projectes experimentals a EEQ

**Full-or-part-time:** 90h

Laboratory classes: 30h

Self study : 60h

### (ENG) -Disseny i direcció d'un experiment

**Full-or-part-time:** 16h

Laboratory classes: 10h

Self study : 6h

### (ENG) -Sessions de seguiment i planificació del projecte

**Full-or-part-time:** 18h

Laboratory classes: 8h

Self study : 10h

### (ENG) -Presentació dels Projectes

**Full-or-part-time:** 18h

Laboratory classes: 8h

Self study : 10h

## GRADING SYSTEM



## BIBLIOGRAPHY

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### Basic:

- Perry, R. H.; Green, D. W.; Maloney, J. O. Perry : Manual del ingeniero químico. 3ª ed. México [etc.]: McGraw-Hill, 1992. ISBN 9701000110.
- McCabe, Warren L. [et al.]. Unit operations of chemical engineering. 7th ed. Boston [etc.]: McGraw-Hill, cop. 2005. ISBN 0071247106.
- Coulson, J. M. Chemical engineering. 6th ed. Butterworth Heinemann: Oxford [etc.], 1999-. ISBN 0750665386.

### Complementary:

- Incropera, F. P.; DeWitt, D. P. Fundamentos de transferencia de calor. 4ª ed. México [etc.]: Prentice Hall, cop. 1999. ISBN 9701701704.
- Franzini, J. B.; Finnemore, E. J. Mecánica de fluidos con aplicaciones en ingeniería. 9ª ed. Madrid [etc.]: McGraw-Hill, cop. 1999. ISBN 844812474X.
- Smith, J. M. [et al.]. Introducción a la termodinámica en ingeniería química [on line]. 7ª ed. México [etc.]: McGraw-Hill, 2014 [ Consultation : 29/04/2020 ]. Available on : [http://www.ingebook.com/ib/NPcd/IB\\_BooksVis?cod\\_primaria=1000187&codigo\\_libro=4319](http://www.ingebook.com/ib/NPcd/IB_BooksVis?cod_primaria=1000187&codigo_libro=4319). ISBN 9781456219871.