Course guide
820525 - EEQ1Q - Experimentation in Chemical Engineering I

Last modified: 04/06/2026

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: 2026 **ECTS Credits:** 6.0 **Languages:** Catalan

LECTURER

Coordinating lecturer: MONTSERRAT PEREZ MOYA

Others:

Primer quadrimestre:
ALBA ÁGUEDA COSTAFREDA - Grup: T1
MOISES GRAELLS SOBRE - Grup: T1
MONTSERRAT PEREZ MOYA - Grup: T1

Segon quadrimestre:
ALBA ÁGUEDA COSTAFREDA - Grup: M11, Grup: M12
AURELIO CALVET TARRAGONA - Grup: M11, Grup: M12
MOISES GRAELLS SOBRE - Grup: M11, Grup: M12
JUANA LALUEZA BARO - Grup: M11, Grup: M12
MONTSERRAT PEREZ MOYA - Grup: M11, Grup: M12
MARGARITA SÁNCHEZ JIMÉNEZ - Grup: M11, Grup: M12

REQUIREMENTS

QUÍMICA EN DISSOLUCIÓ AQUOSA - Prerequisit

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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

LEARNING OBJECTIVES OF THE SUBJECT

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

Any academic fraud, plagiarism or use or possession of unauthorised means in an assessment activity leads to a mark of zero (0) for the affected test or assignment. Furthermore, in accordance with the University's regulations, if disciplinary proceedings are initiated the subject is recorded as "Pending Assessment" until a decision is reached. These incidents are managed in accordance with the **Action Framework for Academic Integrity in Assessment at the UPC**.

BIBLIOGRAPHY

Basic:
- 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.
- Perry, R. H.; Green, D. W.; Maloney, J. O. Perry : Manual del ingeniero químico. 3ª ed. México [etc.]: McGraw-Hill, 1992. ISBN 9701000110.

Complementary:
- 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. ISBN 9781456219871.
- 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.