

Course guide

220228 - 220228 - Chemical Technology

Last modified: 25/09/2025

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 713 - EQ - Department of Chemical Engineering.

Degree: MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2013). (Optional subject).

Academic year: 2025 **ECTS Credits:** 3.0 **Languages:** Catalan

LECTURER

Coordinating lecturer:

Daga Monmany, Jose Maria

Others:

Cortes Izquierdo, M. Pilar

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

At the end of the course the student should:

- Understand the laws that govern the behavior of solutions
- Understand aspects of the chemistry of metals and non-metals
- To acquire knowledge of aspects of organic chemistry in its application in the field of polymers

STUDY LOAD

Type	Hours	Percentage
Hours large group	27,0	36.00
Self study	48,0	64.00

Total learning time: 75 h

CONTENTS

title english

Description:

content english

Full-or-part-time: 32h

Theory classes: 12h

Self study : 20h



title english

Description:

content english

Full-or-part-time: 15h

Theory classes: 5h

Self study : 10h

title english

Description:

content english

Full-or-part-time: 28h

Theory classes: 10h

Self study : 18h

ACTIVITIES

name english

Full-or-part-time: 43h

Self study: 27h

Theory classes: 16h

name english

Full-or-part-time: 19h

Theory classes: 7h

Self study: 12h

name english

Full-or-part-time: 4h 30m

Theory classes: 1h 30m

Self study: 3h

name english

Full-or-part-time: 2h

Theory classes: 2h

name english

Full-or-part-time: 9h

Theory classes: 3h

Self study: 6h



name english

Full-or-part-time: 2h

Theory classes: 2h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Whitten, K. W.; Davis, R. E.; Peck, M. L. Química general. 5a ed. Madrid [etc.]: McGraw-Hill, 1998. ISBN 8448113861.
- Chang, Raymond. Química [on line]. 13a ed. México D.F: McGraw-Hill, 2020 [Consultation: 15/03/2023]. Available on: https://www-ingebook-com.recursos.biblioteca.upc.edu/ib/NPcd/IB_BooksVis?cod_primaria=1000187&codigo_libro=10619. ISBN 9781456277161.
- Flaqué Lajara, C. [et al.]. Química per a l'enginyeria [on line]. 2a ed. Barcelona: Iniciativa Digital Politècnica, Publicacions Acadèmiques UPC, 2011 [Consultation: 23/06/2020]. Available on: <http://hdl.handle.net/2117/76257>. ISBN 9788476535998.
- Petrucci, Ralph H. Química general: principios y aplicaciones modernas [on line]. 11a ed. Madrid: Pearson Prentice Hall, 2017 [Consultation: 30/09/2022]. Available on: https://www-ingebook-com.recursos.biblioteca.upc.edu/ib/NPcd/IB_BooksVis?cod_primaria=1000187&codigo_libro=6751. ISBN 9788490355336.

Complementary:

- Atkins, P. W.; Jones, L. Principios de química: los caminos del descubrimiento. 5a ed. Buenos Aires: Médica Panamericana, cop. 2012. ISBN 9789500602822.
- Carey, Francis A. Organic chemistry. 2nd ed. New York: McGraw-Hill, cop. 1992. ISBN 0070099340.
- Solomons, T. W. [et al.]. Química orgánica. 2a ed. México: Limusa : Wiley, cop. 1999. ISBN 9681852176.
- Sales i Cabré, Joaquim [et al.]. Introducció a la nomenclatura química: inorgànica i orgànica [on line]. 5a ed. Barcelona: Reverté, 2003 [Consultation: 24/07/2024]. Available on: https://www-ingebook-com.recursos.biblioteca.upc.edu/ib/NPcd/IB_BooksVis?cod_primaria=1000187&codigo_libro=13554. ISBN 8429175512.

RESOURCES

Other resources:

http://highered.mcgraw-hill.com/sites/0072828374/student_view0/index
<http://www.chemdex.org> /> <http://www.webelements.com> /> <http://www.periodicvideos.com/#>
/> <http://www.khanacademy.org/#chemistry-1> /> http://en.wikibooks.org/wiki/General_Chemistry />