



Course guide

390431 - TAR - Wastewater Treatment

Last modified: 06/06/2023

Unit in charge: Barcelona School of Agri-Food and Biosystems Engineering
Teaching unit: 745 - DEAB - Department of Agri-Food Engineering and Biotechnology.

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

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

LECTURER

Coordinating lecturer: Balanyà Martí, Teresa

Others: Cerrillo Moreno, Míriam

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

1. Physical, chemical and biological processes for sewage treatment.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

Type	Hours	Percentage
Hours small group	20,0	13.33
Hours large group	40,0	26.67
Self study	90,0	60.00

Total learning time: 150 h

CONTENTS

(ENG) CARACTERITZACIÓ D'AIGÜES RESIDUALS I EL SEU CONTEXT

Description:

(ENG)

Related activities:

Full-or-part-time: 25h

Theory classes: 6h

Laboratory classes: 4h

Self study : 15h



**(ENG) PROCESSOS FÍSICS, QUÍMICS I BIOLÒGICS I LA SEVA APLICACIÓ EN TRACTAMENTS INTENSIVS DE
DEPURACIÓ**

Description:

(ENG)

Full-or-part-time: 40h

Theory classes: 10h

Laboratory classes: 6h

Self study : 24h

(ENG) BIOLOGICAL PROCESSES

Description:

(ENG)

Related activities:

(ENG)

Full-or-part-time: 61h

Theory classes: 15h

Laboratory classes: 9h

Self study : 37h

Waste generated by wastewater treatment.

Description:

(ENG)

Related activities:

(ENG)

Full-or-part-time: 14h

Theory classes: 5h

Laboratory classes: 1h

Self study : 8h

(ENG) PROCESSOS DE REGENERACIÓ D'AIGÜES RESIDUALS DEPURADES

Description:

(ENG)

Related activities:

(ENG)

Full-or-part-time: 10h

Theory classes: 4h

Self study : 6h



ACTIVITIES

(ENG) ACTIVITAT 1: CLASSES D'EXPLICACIÓ TEÒRICA

Full-or-part-time: 94h

Theory classes: 38h

Self study: 56h

(ENG) ACTIVITAT 2: PROVES INDIVIDUALS D'AVUACIÓ

Full-or-part-time: 2h

Theory classes: 2h

(ENG) ACTIVITAT 3: PRÀCTIQUES DE LABORATORI

Full-or-part-time: 16h

Laboratory classes: 8h

Self study: 8h

(ENG) ACTIVITAT 4: SESSIONS DIRIGIDES DE PROBLEMES

Full-or-part-time: 20h

Laboratory classes: 10h

Self study: 10h

(ENG) ACTIVITAT 5: VISIT

Full-or-part-time: 4h

Laboratory classes: 2h

Self study: 2h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Tchobanoglous, George; Burton, Franklin L. Ingeniería de aguas residuales: tratamiento, vertido y reutilización. 3a ed. Madrid: McGraw-Hill, cop. 1995. ISBN 8448116070.
- Rittmann, Bruce E; McCarty, Perry L. Biotecnología del medio ambiente: principios y aplicaciones. Madrid [etc.]: McGraw-Hill, cop. 2001. ISBN 8448132807.
- Ramalho, R.S. Tratamiento de aguas residuales. Barcelona: Reverté, 1996. ISBN 8429179755.