

Cutting-edge Environmental Technologies

Code: 43329
ECTS Credits: 6

Degree	Type	Year	Semester
4314579 Biological and Environmental Engineering	OT	1	2

Contact

Name: Teresa Gea Leiva

Email: Teresa.Gea@uab.cat

Teachers

Maria Teresa Vicent Huguet

Julián Carrera Muyo

David Gabriel Buguñá

Albert Guisasola Canudas

Ernest Marco Urrea

Amanda Alonso Gonzalez

Use of languages

Principal working language: spanish (spa)

Prerequisites

Any especial requirements

Objectives and Contextualisation

The objective of this module is that the student understands the most innovative technologies for environmental remediation. These technologies that are currently under development at the laboratory or pilot scale will surely be the basis of future environmental engineering and their knowledge will allow simultaneous understanding of the main deficits of current technologies.

Content

- Nanotechnology. Applications of nanomaterials to environmental remediation. Toxicity of nanomaterials.
- Bioelectrochemical systems for the production of electricity or hydrogen from waste water
- Technologies based on biofilms for the treatment of liquid and gaseous effluents.
- Bioremediation by fungi. Types of fungi. Intracellular and extracellular enzymes. Application in the degradation of pollutants.
- Production of biofuels
- Residual effluents valorisation