G1636 "European Project Semester"

Technical data

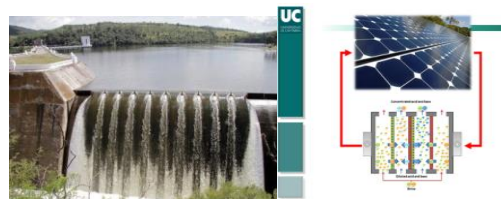|	
Course type	Optative
Semester:	Eightieth (4º course, second semester)
Language:	English
Teachers:	Prof. Dra. Inmaculada Ortiz; Prof. Dra. Raquel Ibañez; Dr. Jonathan Albo; Dr. Eugenio Bringas; Dra. Clara Casado; Dr. Antonio Dominguez; Dra. María Margallo; Dr. Gabriel Zarca

Description of the of the course

This is a unique program of 30 ECTS aimed to integrate the fundamentals of chemical engineering disciplines for the optimum design of environmental, biotechnological and industrial processes. Along the second semester, students will take 3 regular courses G787 Advanced Separation processes, G795 Wastewater Treatment and G799 Life Cycle Assessment and will end up with the completion of the Final Degree Project. Approximately half of the scheduled time will be devoted to the development and acquisition of practical skills both in computer rooms working with specialized software as well as in laboratory working with bench scale set-ups.

Team-working in multidisciplinary and international groups is favored as an important part of the training program that for the assessment requires preparation of written reports and oral presentations.

The list of projects' proposals is renewed every year to match the training program to technical and scientific topics of actual interest. Next, there is the list of topic offered for the 2014-15 course:

- CO_2 capture and recovery. Impact on climate change
- Strategies for CO_2 recovery and transformation to chemical stuff
- New water sources: Wastewater regeneration and reuse
- Desalination processes: source of water and chemicals
- Application of biotechnology to environmental and industrial processes
- Magnetic nano-materials: Applications and perspectives
- Renewable energy sources: Photovoltaic, Fuel cels...
- Industrial effluents as a source of value added products
- Chemical and biomolecular engineering: purification of biomolecules
- Chemical and biomolecular engineering: New materials for Tissue engineering