Blended Intensive Course

Biorefineries: Toward the Development of a Sustainable Industry

Interested in exploring sustainable ways to produce energy, chemicals, and materials without depending on fossil sources?

Curious about how biorefineries can contribute to the energy transition and tackle today's environmental challenges?

If you are an advanced undergraduate, master's, or PhD student interested in deepening your knowledge in bioprocess design, waste valorization, and biorefinery development in an international setting, this course is for you!

Programme Structure

26/02/26 - 13/03/26 — **Part I – Virtual**

4 interactive sessions:

(2.5 h/session)

1. *Basic Biological Concepts for Engineers*
2. *Bioprocess Development and Optimization*
3. *Kinetic Modelling of Bioprocesses*
4. *Introduction to Biorefineries*

16/03/26 - 20/03/26 — **Part II – Face-to-Face**

Activities relating to:

(5 days)

- *Sustainability of Biorefineries*
- *Simulation of bioprocesses*
- *Conceptual design of a lignocellulosic biorefinery*
- *Production of biofuels, high-value-added products, and biopolymers*

Visits to research center and industry

23/03/26 - 24/04/26 — **Part III – Virtual**

Research project on the comprehensive valorization of a waste within the framework of biorefineries

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Recognition of 3 ECTS credits

Contact your Erasmus office to apply for a mobility grant.

Persons responsible for the student selection process

- Vanessa Ripoll (UPM) vanessa.ripoll@upm.es
- Iuliana Biru (UPB) iuliana.biru @upb.ro
- Fehér Csaba (BME) feher.csaba@vbk.bme.hu

Be part of the challenges of the future.