



Available internship positions for ERASMUS+ students Academic year 2024-2025

The Biochemical Process Engineering research group at Luleå University of Technology (Sweden) consists of approximately 30 people working with biomass pretreatment, carbon dioxide capture and utilization, design and use of enzymes and microorganisms for production of fuels, chemicals and materials. Their expertise ranges from molecular biology, metabolic engineering, microbial physiology, fermentation, enzyme discovery and technology, protein chemistry, process technology to modeling of bioprocesses. During the past year, we have hosted many international students engaging with diverse and interesting projects related to biotechnology.

(<https://www.ltu.se/research/subjects/Biochemical-Process-Engineering/Utbytesstuderter?l=en>).

We are currently offering various internship projects for ERASMUS+ students. Preferred duration for the internship is 3-6 months. The internship topics are related to current state-of-the-art research of our group, and they are integrated to our work under EU and Swedish-funded projects. The internship can start either the winter or spring semester.

Topics:

- 1. Development of enzyme-accelerated hybrid CO₂ capture processes**
- 2. Chemical storage of hydrogen to formate by bioelectrochemical CO₂ reduction**
- 3. Enzymatic degradation and upcycling of plastic residues**
- 4. Enzymatic functionalization of hydrogels for production of wound healing agents**
- 5. Life cycle assessment (LCA) for the novel high-added value products based on valorization strategies of lignocellulose and CO₂-rich off gases.**

Other projects may be also available during 2024-2025. Please contact us for further information.

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For applications and deadlines, please consult with the ERASMUS+ office within your university.