

# BIEN 585. METABOLIC ENGINEERING.

---

Credits: 3

Offered by: Bioengineering (Faculty of Engineering)

Terms offered: Fall 2025

[View offerings for Fall 2025 in Visual Schedule Builder.](#)

## Description

Metabolic engineering role in transition from fossil resources to a bio-based society. Design-build-test-learn cycle of metabolic engineering. Design, genetic engineering and optimization of microbial biocatalysts. Metabolic network analysis, constraint-based modelling of metabolism, microbial production of valuable chemicals. General biochemical engineering practices. Recombinant DNA technology, enzyme function, kinetics and regulation. Cell chemistry, structure and function. Growth models, fermentation, strain development. Case studies.

- 3-2-4
- Prerequisite: Permission of the instructor.

Most students use Visual Schedule Builder (VSB) to organize their schedules. VSB helps you plan class schedules, travel time, and more.

[Launch Visual Schedule Builder](#)