

# 10.26/27/29 Chemical, Energy, & Biological Engineering Projects Labs

## Final Report Oral Presentations

**Tuesday, May 12, 2026, 1-5pm in 66-110**

- Team 1: Characterizing Mass Transfer and Validating Carbon Mass Balance in Fermentation**
- Team 2: Sustainable Production of a Biocatalyst for CO<sub>2</sub> Capture from Flue Gases**
- Team 3: Scaling Up the Purification Process of Recombinant Carbonic Anhydrase**
- Team 4: Toward a Continuous Steady-State Process for KOH-based Capture of CO<sub>2</sub> Using Electrolysis to Isolate Captured CO<sub>2</sub> and Regenerate KOH**
- Team 5: CO<sub>2</sub> Direct Air Capture – Continuously Running Cyclic Process Based on Moisture-Swing Absorption**
- Team 6: Bio-Conversion of Acid Whey (AW) to Astaxanthin (AX)**
- Team 7: Optimization of Aeration and Glucose Feed to Maximize Astaxanthin Biosynthesis**
- Team 8: Purification of Carotenoids from Microbial Biomass**
- Team 9: Chemical Engineering Analysis of Nanopore-Based Single-Molecule Detection of Rare Disease Biomarkers**
- Team 10: Development of an Electrochemical Reactor for Selective and Efficient Copper Production**
- Team 11: Assessing the Feasibility of Acid and Base Production Using an Electrochemical Reactor**
- Team 12: Technical-Economic Analysis of Sustainable Production of a Biocatalyst for CO<sub>2</sub> Capture from Flue Gases, Using Batch and Continuous Processes**

Final presentations for the Projects Labs in the Chemical Engineering Department. Students work in teams on one project for the term. Teams present proposals, progress reports and final reports, which are judged by both experts and peers.

Awards for the best 3 projects will be presented.

**Students, staff, and faculty of the Department are invited to attend.**