BIEN 670. DOWNSTREAM PROCESSING

Credits: 3

Offered by: Bioengineering (Graduate Studies)

Terms offered: Fall 2025

View offerings for Fall 2025 in Visual Schedule Builder.

Description

Introduction to downstream processing (DSP) – principles, characteristics, purpose. Bioprocesses, biomolecules, drug substances, drug products, monoclonal antibodies and Fc fusion proteins, viral vectors, and vaccines. Unit operations - standard practices. Steps and techniques in downstream processing. Harvest and Filtration, Primary capture, Buffer exchange and up-concentration, Purification, Bioconjugation, Formulation. Optimization of downstream processing. Process Analytical Technology (PAT) to support Quality by Design (QbD) in DSP. Regulatory guidelines. Innovative Techniques for Downstream Bioprocessing.

· Prerequisites: BIEN 590 or 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.

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