

## Bioseparations/New Separations (BIOE 4630/5650, CHEE 4410/5410)

Instructors: Dr. Arun Nadarajah, Office: NI 5051, Phone: 530-8031, E-mail: nadarajah@utoledo.edu

Textbook: No required textbook

Grading:      Homeworks                      10%  
                  In-class Exams (2)                60% (2×30%)  
                  Final Project                        30%  
                  *There will be no final exam*

*Exams:* Two in-class open book exams will be given during the semester. The first exam will focus on membrane separations and adsorption, and the second exam will focus on chromatography and crystallization. There will be no final exam.

*Final Project:* A comprehensive final project will be assigned early in the semester and is due during the last week of classes. All graduate students must complete the project individually.

### Tentative Schedule

Week	Topic
1	Introduction to Biomolecules
2	Introduction to Biomolecules
3	Introduction to Bioseparations
4	Membrane Separation
5	Membrane Separation
6	Membrane Separation
7	Membrane Separation
8	Adsorption, Exam I
9	Chromatography
10	Chromatography
11	Chromatography, Final Project Assigned
12	Chromatography
13	Chromatography
14	Crystallization, Exam II
15	Crystallization
16	Final Project