

BIOC 5091 – Special Topics (Spring 2018):

This course will cover the analysis of multi-wavelength data generated with the new Optima AUC analytical ultracentrifuge instrument.

Course outline:

1. design of multi-wavelength experiments
2. wavelength selection
3. import and editing of multi-wavelength data into the UltraScan LIMS database
4. pre-processing of data with UltraScan up to the 2DSA-iterative method
5. generation of time-synchronous multi-wavelength data based on 2DSA results
6. wavelength decomposition of multi-wavelength data into 2 or more basis vectors
7. analysis of decomposed data with standard hydrodynamic methods
8. presentation of multi-wavelength data for manuscript preparation

Course participants will be provided with experimental systems containing multiple chromophores suitable for multi-wavelength decomposition.