**BIOC 558 - Advanced Topics in Protein Chemistry I**

Course Description:

BIOC 558 is a 1.5 credit course designed to provide an overview of biomolecular NMR spectroscopy, including spectral assignments, protein structure determination, the analysis of dynamics by relaxation and hydrogen exchange, and the investigation of ligand binding. Emphasis is on the practical, rather than theoretical, aspects of NMR spectroscopy.

Grading will be based on: i) weekly problem sets; ii) analyzing the 3D spectra of a simple 13C/15N-labeled peptide to obtain main chain resonance assignments as required for secondary structure determination; iii) analyzing 15N relaxation, amide hydrogen exchange, and ligand binding NMR data to provide protein structure-dynamic insights; and iv) an NMR-related research proposal presentation.

Instructor: Dr. Lawrence McIntosh  
Format: 90-minute lectures (12), 1.5 credits  
Time: Tues/Thurs (3:30-5:00 pm) from September 8 to October 22, 2020  
Location: TBA (UBC Point Grey Campus).  
Number of seats: 18