# MOLECULAR BIOLOGY AND BIOCHEMISTRY

## MBB 423-3

### Protein Structure and Function

Spring 2015

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<tr>
<th>Instructor</th>
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### Description/topics:

**Course Description:** 3 lecture hours + 1 tutorial hour / week

Through examination of modern research literature, students will learn to assess primary literature reports of structure data, and to formulate hypotheses and apply structural reasoning in investigations of molecular mechanism.

#### Topics

- Structural basis of protein function:
  - Stability and flexibility
  - Enzymatic catalysis
  - Integrating multiple functions
- Obtaining and assessing structural data:
  - X-ray crystallography
  - Electron microscopy
  - Spectroscopic techniques

### Grading:

- Quizzes/iClicker 15%
- Midterm Exam I 15%
- Written Assignment 15%
- Midterm Exam II 15%
- Final Exam 40%

Grading is subject to change depending on enrolment.

### Required texts:

This course is not textbook-based. Course readings and research journal articles will be available in Library Reserves.

### Required materials:

iClicker transmitter required during lectures (available from SFU Bookstore).

### Prerequisite:

MBB 323 OR MBB 324

OR by permission of instructor.

Students requiring accommodations for a disability must contact:

Centre for Students with Disabilities (778-782-3112 or e-mail: csdo@sfu.ca)

All students are subject to and responsible for being familiar with the SFU academic integrity policy and the plagiarism tutorial:

- [http://students.sfu.ca/academicintegrity/index.html](http://students.sfu.ca/academicintegrity/index.html)
- [http://www.lib.sfu.ca/help/tutorials/plagiarism-tutorial](http://www.lib.sfu.ca/help/tutorials/plagiarism-tutorial)

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