Course Description

This course will examine topics related to advanced studies in nucleic acid chemistry and peptide chemistry. The selection of topics will vary to serve the interests of the students enrolled. In general, it would be useful to have taken C9533 (Introductory Nucleic Acid Chemistry).

Topics may include a selection from below:

- Polymer supported methods for the synthesis oligopeptides and analogues including choice of support, linker, protecting groups, activators, etc.
- Synthetic methods and applications for the synthesis of covalent conjugates of oligonucleotides
- Biomolecular interactions – the details of extracting quantitative information from spectroscopic methods on the interactions of nucleic acids by UV, fluorescence, CD, PAGE, and other common methods.

Sources

Lecture notes will be distributed. As well, references to the appropriate primary literature will be given. Appropriate references to texts/monographs will be provided.

Evaluation

Evaluation will be based on an oral presentation (and questions) as well as an in-class test of basic/fundamental knowledge pertinent to the course (ca. 1.5 - 2 hour). The topic for the presentation will be assigned or decided by mutual choice with the course instructor. Occasionally, as part of the course, but not of the evaluation, questions will be assigned to augment the discussion during lectures or illustrate other important concepts.

- Knowledge test (40%)
- Presentation and comprehension, includes peer grading (60%)

Seminar/report topics will be assigned early in the course and are drawn from the recent literature. These topics will complement the material covered during our meetings.

Seminar Format

A 20 minute formal presentation (i.e. not a ‘chalk talk’) followed by an equal length of question/discussion period involving the entire class.

Timing:

The course will run for six weeks maximum. We will meet once a week for 2-to-3 hours. Depending on enrolment, a seminar day may be needed for student presentations. This will be scheduled for a week past the last lecture.

NOTE:

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:


Specifically, in regard to the student presentation, students must ensure they properly attribute other’s work.