

BIOC 421 – Recombinant DNA Techniques

Course Outline

Course Description

This lab course focuses on experiments and techniques relevant to modern day molecular biology/nucleic acid research. Students will work as a group of two to complete multi-week experiments that mimic real research. This course is intended for students who are looking to obtain more experience with molecular biology and gain practical skills in a research lab.

Course Objectives

While this is a lab course, the objectives of the course go beyond simply learning the technical details of the experiments performed. The course will also focus on an in-depth understanding of the techniques performed, experimental design, and communicating science.

This course aims to:

- Improve problem solving and deductive reasoning skills
- Provide experience designing experimental plans
- Improve writing skills
- Transition your skills and theory to practical application

Course Evaluation

First Report	25%
Final Report	60%
Lab Performance	15%

Course Communication

For all information pertaining to BIOC 421 please see the course website. On the website you will find the course schedule (with due dates), lab manual, and product technical specification sheets.

Teaching Assistants

- Section 201 – Karlton Scheu
- Section 202 – Mackenzie Lawrence
- Section 204 - David Rattray

Lectures

There is a weekly lecture for the course on Mondays at 1pm in the Life Sciences Centre 1510. These will be informal discussions regarding the theory and practical aspects of the experimental work that will be performed each week. In addition there will be a focus on preparing the lab reports and how to approach scientific writing. To maximize learning, students are expected to come to these sessions having pre-read the weeks lab work to engage in the discussion and identify elements that require further information.

Lab Times

Labs will run for the allotted time, which is sufficient to carry out the day's work load. However, to achieve this you must come prepared and proceed through the work in a very organized manner. It is essential that you arrive each day having read AND understood (or have questions prepared about) the protocols. It is important that you complete the work and clean up your work area in the allotted time.

In addition, for certain work you will have to come into the lab (briefly) outside of class time. This is indicated in bold type in the protocol. Ensure proper arrangements are made.

Missing Lab Policy

Whenever feasible provide 24hrs notice (to myself and your lab partner) of an absence. If a student misses the equivalent of 2 lab days there will be a meeting with the course Instructor to discuss if completion of the course is feasible. In some cases the student will be requested to withdraw from the course. Note that absences for medical reasons may be handled differently and the policy altered to accommodate certain situations. Absences due to medical reasons must be accompanied by a note from the doctor/technician on the office stationary and a phone number/email for the office. If the policy creates an issue for your particular case please come speak to me directly.

Academic Honesty

According to university policy, students are responsible for learning what the rules of academic honesty are and for applying those rules to their own work. While some forms of academic misconduct are relatively obvious, some may be less so and if you are ever in doubt it is best to check with your course instructor. An extensive list of what UBC considers Academic Misconduct can be found in the academic calendar.

What constitutes plagiarism is sometimes difficult to understand. The university has produced guidelines to help understand what plagiarism is and how to avoid it, you can find those guidelines here:

<http://learningcommons.ubc.ca/resource-guides/avoiding-plagiarism/>

What consequences can arise from academic misconduct? The severity of the discipline can range from a letter of reprimand or a zero all the way to expulsion from the University. A list of possible outcomes can be found here: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,54,111,960>

With some effort and forethought no student should ever have to find themselves facing discipline for academic misconduct; inform yourself as to the expectations placed on you and what your responsibilities are. If in doubt as to what constitutes misconduct, be sure to ask.

Contact Information

While the TAs are the best resource for most of your questions, I am also available to talk over any issues/concerns etc. I do not keep set office hours, but I am typically available most lab days. You are welcome to drop by my office anytime, however it is often best to email me so that we can arrange a time to meet.

Dr. Scott Covey

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