DALHOUSIE UNIVERSITY

Faculty of Science Course Syllabus Fall 2020

Department of Biochemistry & Molecular Biology

Scientific Communication in Biochemistry and Molecular Biology I BIOC5914

Transcript Title: Biochem Communications I

Fall term 2020

Instructor: Dr Aarnoud van der Spoel spoela@dal.ca Office hours: by appointment

Class time: Tuesdays 11:35 - 12:55 (online, synchronous)

Course Description

This course introduces students to a set of transferable skills that are useful in- and outside science. It focuses on different ways of communicating, including written text, slides used in presentations, and posters that are presented at conferences. Students will become familiar with principles and guidelines for communicating effectively through text and oral and poster presentations. They will also have opportunities to put these principles into practice.
Format: Lectures, tutorials, assignments, presentations, and attendance at Departmental seminars
Credit Hours: 3

Learning Objectives

Through this course, students will:

1. Become familiar with principles for writing non-fiction texts that can be understood in the absence of the writer, and appreciate the concepts of cohesion, coherence, flow, and clarity in writing.
2. Apply writing principles and concepts in various writing practices.
3. Become familiar with principles for preparing (1) tables and figures from raw data, (2) posters for presentation at conferences, (3) slides to augment oral presentations, and (4) to deliver oral scientific presentations to peer audiences.
4. Apply their knowledge of presentation principles by (1) giving an oral presentation and (2) appraising scientific presentations and posters.
5. Appreciate the importance of responding appropriately to potential incidents of academic and scientific fraud and become familiar with Dalhousie University regulations covering issues of academic integrity.

Course Material

Scientific Writing and Communication - Papers, Proposals, and Presentations by Angelika H Hofmann (Oxford University Press, 4th Ed.)

Paperback (highly recommended): (ISBN 978-0190063283; Indigo.ca, Amazon.ca)

ebook: (eText ISBN 9780190063290; VitalSource.com)

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Brightspace (seminar evaluation form)

Other course materials will be provided to students via email.

Course Organization

Part 1. Classes and assignments deal with the principles and guidelines for scientific writing. For each assignment, students are expected to submit a first draft for editing and will have one week in which they can make appropriate revisions and submit the final version for grading. Most students will require a minimum of three hours/week to finish all assignments.

Part 2. Classes and assignments aim to develop presentation skills for scientific seminars and posters. Students will prepare 10-min mock presentations that will be presented and critiqued in class. Issues of scientific and academic integrity will also be discussed.

Part 3. This part runs throughout the term and aims to provide students with the opportunity to evaluate seminars by experienced presenters who have been invited to present in the Departmental seminar program. By critiquing the seminar presentations of others, the students will gain a basic understanding of how to prepare their presentations to maximize clarity and promote the flow of ideas.

Draft Schedule for Fall 2020

Part 1

September 22	Introduction to course
September 29	Writing: words
October 6	Writing: sentences I
October 13	Writing: sentences II
October 20	Writing: paragraphs - coherence and cohesion

Part 2

October 27	Poster presentation skills
November 3	Mock presentations I
November 10	Mock presentations II
November 17	Scientific and academic integrity

Part 3

September 9 - November 27 Departmental seminar (Wednesdays 4:00-5:00 pm, online)

Course Assessment

Parts 1 and 2.	Weekly assignments: 45% Participation: 25% (e.g., attendance, participation in critiquing, science questions)
Part 2.	Presentation: 20% (10% from instructor, 10% from students)
Part 3.	Critiques of five departmental seminars: 10% (see guidelines below)

Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale

A+ (90-100)	**B+** (77-79)	**C+** (65-69)	**D** (50-54)
A (85-89)	**B** (73-76)	**C** (60-64)	**F** (<50)
A- (80-84)	**B-** (70-72)	**C-** (55-59)	

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Part 3: Critiquing of seminars

A portion of your grade for this course is based on critiquing of seminars. You are required to critique five seminars to receive a grade in this part of the course. To pass the course, you must have submitted all five seminar evaluations on or before December 3. Stipulations are as below:

Critiques must be of original research seminars (not journal club or group meeting presentations), and at least four must be Biochemistry & Molecular Biology Departmental seminars (Wednesday at 4 pm). Attendance at Departmental seminars is expected of all Biochemistry & Molecular Biology graduate students, so this requirement should not be a huge imposition. If you want to critique seminars outside the Department, the seminar must be related to the general theme of a graduate degree in Biochemistry & Molecular Biology (i.e., thinking about biomolecule(s) at the molecular and/or submolecular levels). If you have another degree requirement (e.g., TA activity or a class) during the Wednesday seminar slot, let your instructor know and arrangements can be made.

Seminar evaluations should be provided for speakers at a variety of levels; that is, evaluate some seminars given by faculty members and some by graduate students. Your completed evaluation forms should be submitted to Dr. van der Spoel. You should be able to hand them in by the end of the seminar or within one week of the seminar in question (hardcopy or by email). Evaluations can also be left in Dr. van der Spoel's mail slot in the CRC building, room C-304. A critique must be analytical and detailed to count for credit – that is, a critique which consisting only of a phrase such as “pretty PowerPoint slides and good speaking dynamics” would not result in a passing grade.

Finally, have fun with this section of the course. Remember that the onus is on the speaker to make the subject matter interesting and accessible, even if this is not your particular research area. How well did they achieve this? What did you like or not like that would affect the design your own seminars? Your evaluations are confidential and will not be available to the speaker. Your evaluations will be returned in a timely manner, in case you’d like to refer back to comments you have made.

Course Policies on missed or overdue assignments

A student who misses an evaluation component of the course due to illness must notify the course coordinator or department office prior to the scheduled time or due date for that component. The student must also complete a Student Declaration of Absence form (available on the course website or on the course Brightspace page) or provide alternate verification of the absence to their instructor via instructor e-mail within three (3) calendar days following the last day of absence. An alternative due date will be established by the instructor and shall normally be within seven calendar days after the original due date. Absence for non-medical reasons is not ordinarily acceptable unless prearranged with the instructor. A missed evaluation component for which no satisfactory arrangement has been made will be given a mark of zero. All attempts will be made to accommodate requests for extensions of deadlines where illness or personal crisis, i.e., extenuating circumstances that would affect the student's ability to fulfill the criteria for the award of credit points or to perform to the best of the student's ability in assessment events, have occurred. It is the responsibility of the student to notify the instructor and/or course coordinator of any extenuating circumstances and to request an extension.

In the event of weather-related events and other natural disasters serious enough for the university to be closed, classes will be cancelled, and the schedule will be adjusted to accommodate the missed date(s).

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DEPT. OF BIOCHEMISTRY & MOLECULAR BIOLOGY POLICY ON PLAGIARISM

What is plagiarism?

"Dalhousie University defines plagiarism as the presentation of the work of another author in such a way as to give one's reader reason to think it to be one's own. Plagiarism is a form of academic fraud."[†] The Department is committed to protecting honest students against the devaluation of their work by students who resort to plagiarism.

Some examples of plagiarism include (but are not restricted to):

- Submitting as your own work any material created, in whole or in part, by someone else, **including material created in collaboration with other students**, unless specifically allowed by the course instructor and credited appropriately.
- Paraphrasing extensively or copying from sources such as the internet, journal articles, or books (including textbooks) without crediting the original author or source.
- Using another student's laboratory data, unless specifically allowed by the course instructor and credited appropriately.
- Submitting, in whole or in part, any work that has been submitted in another course, or re-submitting the same work in different years of the same course.

How can plagiarism be detected?

If required by the Instructor, work submitted for credit must be submitted in electronic as well as hard copy form. Submissions may be screened by one or both of the following methods:

- A pattern recognition program that compares all submissions with one another as well as submissions from previous years. Every individual has a unique pattern of writing. This program will detect submissions that are derived from a common source, even if words or phrases have been changed.
- A third-party computer-based assessment system that compares submissions against a large database including previous submissions and Internet sources.

What are the consequences of plagiarism?

"Plagiarism is a serious academic offence which may lead to loss of credit ['F' in a course], suspension or expulsion from the University, or even the revocation of a degree."[†] **At Dalhousie University, the Department is obligated to refer any cases of suspected plagiarism to the Senate Discipline Committee**, which will then conduct a hearing to evaluate the innocence or guilt of students alleged to have committed an act of plagiarism. [†] http://www.dal.ca/dept/university_secretariat/academic-integrity/academic-policies.html

How can accusations of plagiarism be avoided?

You can avoid accusations of plagiarism by:

- Preparing all submissions independently and ensuring that they are expressed in your own unique writing style.
- Never sharing any written or electronic material with other students. You may discuss ideas with other students but you may not work with another student while preparing materials you are planning to hand in.
- Acknowledging any material paraphrased extensively or copied from sources such as the Internet, journal articles or textbooks. Paraphrasing of short phrases from the course textbook need not be acknowledged.

- Guarding all your work, both drafts and final submissions, to ensure that no one else can copy it. If you provide access to your work and someone copies it, then you may have to appear before the Senate Discipline Committee to establish that you are the original creator of the work. If you suspect that someone has taken any of your work, notify your course instructor immediately.
- Using only laboratory data that you actually collected in the lab. Altering laboratory data is not permitted.