Biochemistry 4C03
Course Outline
Term 2
January 2014

Coordinator/Instructor:
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Teaching Assistants:
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Time:
The class meets on Tuesday, Wednesday and Friday 12:30 pm – 1:20 pm in the Burke Science Building Room 106. Any lectures, tutorials or presentations by the course coordinator, teaching assistants, or students will take place at the time and location noted above unless otherwise agreed to by the course coordinator/teaching assistants and students. Please note that the location of individual group meetings with the teaching assistants as well as student presentations will be announced about a week in advance of their occurrence. Consequently students should frequently check LearnLink to ensure that they do not miss any events scheduled at dates/times and locations other than those noted above.

Course Objective:
One objective of the course is to enhance the ability of students to understand scientific findings and methods reported in primary journal articles, and to communicate their content in oral presentations and in written abstracts and reports. Another key objective is to teach students how to write a research proposal by building on current knowledge in the scientific literature.

Course Organization:
Students will be assigned a research topic, which will serve as the foundation for two oral presentations based on a primary journal article (reviews do not constitute primary research articles but should be consulted to familiarize the student with the area of the topic). Students should identify a high-profile full-length publication(s) for example, one featured in the News and Views section of a recent, high-impact journal such as Science, Nature, or Cell. Students should seek the help of their assigned teaching assistant and must obtain approval from the teaching assistant for their choice of publication(s) well in advance of their first presentation (please see schedule below).

The initial presentation will be of an introductory nature, structured along the lines of a scientific abstract, and will set the stage for the second presentation, which will require the student to recount the original findings (results and relevant methods) of the article. Students should rely on the content of the article’s Abstract, Introduction and the Results sections for their presentations. The background provided in the Introduction and any reviews or original articles cited therein
should serve as the foundation for the first presentation. The original figures and tables from the chosen article content may be used directly as the content for the second presentation.

The first presentation should not exceed 10 minutes in duration with 5 minutes for questions and comments from the audience. Audience participation is encouraged. The second presentation should not exceed 20 minutes with 10 minutes for questions and comments from the audience. Generally a single Powerpoint “slide” will take at least 1 minute to present. Due to time constraints on room bookings, each student presentation will be strictly limited to the periods cited above.

The written grant proposal should be centered on the assigned research topic and must build on the findings (results) of the selected article. The proposal should comprise a scientific abstract, an introduction to the field, rationale for the proposed study, a hypothesis, 2-3 specific aims and references. A brief description of the methods to be used for the proposed study should be included in the specific aims section. Lectures will be scheduled and presented by the course coordinator to introduce students to the various components of a scientific proposal. An example of a proposal will be posted on LearnLink.

**Schedule Outline:**

January 7th: First class meeting; outline of course objectives, organization and breakdown of student evaluation. Students will be assigned a teaching assistant; this information will be posted on LearnLink.

January 10th: Research topics assigned to students by teaching assistants.

January 14th: Students identify appropriate primary research article and seek approval of their choice by their teaching assistant. Students should prepare an outline/draft of their first presentation.

January 23rd: Students provided with feedback from teaching assistants on their initial outline and draft presentation. Each teaching assistant will post the approved journal articles during this period on LearnLink to afford all students in each group to read the articles in advance of their presentation.

January 31st: Final presentation outlines uploaded to LearnLink.

February 3rd - 7th: Individual student presentations (first presentation) take place between these dates. Rooms for the presentations will be identified and posted on LearnLink.

February 17th – 21st: Midterm Recess - No classes or tutorials can take place during this period.

February 24th - February 28th: Opportunity for feedback from teaching assistant on preliminary abstract and draft of the second presentation.

March 7th: Final abstract/presentations uploaded to LearnLink.
March 10\textsuperscript{th}-14\textsuperscript{th}: Individual student presentations (second presentation) take place. Rooms will be assigned for the presentations and uploaded to LearnLink.

April 8\textsuperscript{th}: Last day of classes

April 15\textsuperscript{th}: final grant proposal is due by 5 pm. Grant proposals must be delivered to the appropriate teaching assistant. The final mark for late proposals will be reduced by 10% for each 24-hour period following the due date/time.

**Evaluation:**

First presentation – 15\% of final mark
- Outline – 3\%
- Presentation – 10\%
- Participation – 2\%

Second presentation – 35\% of final mark
- Abstract – 10\%
- Presentation – 20\%
- Participation – 5\%

Grant proposal – 50\% of final mark

**Academic Integrity**
You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behavior can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy.

<http://www.mcmaster.ca/academicintegrity>

This section is dedicated to students:
http://www.mcmaster.ca/academicintegrity/students/index.html

The following illustrates only three forms of academic dishonesty:

Plagiarism is the submission of work that is not one’s own or for which other credit has been obtained.

Improper collaboration in group work.
Copying or using unauthorized aids in tests and examinations.

**Requests for Relief for Missed Academic Term Work**
For absences from classes lasting up to 5 days:
Using the McMaster student absence form (MSAF) on-line, self-reporting tool, undergraduate students may report absences lasting up to 5 days and may also request relief for missed academic work. The submission of medical or other types of supporting documentation is normally not required. Students may use this tool to submit a maximum of two requests for relief of missed academic work per term. Students must immediately follow up with their course instructors regarding the nature of the relief. Failure to do so may negate the opportunity for relief. It is the prerogative of the instructor of the course to determine the appropriate relief for missed term work in his/her course.

The MSAF on-line, self-reporting tool cannot be used to apply for any final examination or its equivalent. See Petitions for Special Consideration in the Undergraduate Calendar.

Please consult the website for further info:
http://registrar.mcmaster.ca/registered/

"The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes."