Scientific Writing Skills in Microbiology & Immunology
Calendar Title: Scientific Writing Skills in MIMM
MIMM 301 - Winter 2019

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Key partners:
McGill Writing Centre
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Schulich Library
April Colosimo
Liaison Librarian
Schulich Library, Room 205
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Lectures time and location:
One hour per week for 13 weeks

Prerequisites: MIMM323, MIMM324, MIMM384
Co-requisite: MIMM314, MIMM385

Course description
MIMM301 is a one-credit course that allows students to acquire necessary scientific skills and communication skills. In this course, you will learn how to search the literature, read primary papers, manage citations and use them appropriately in your writing, interpret scientific data, synthesize findings from the scientific literature, and write a scientific paper. This course will allow you to practice and develop your scientific writing skills through various steps intended to provide feedback.

Learning Outcomes

1. Develop information literacy skills to find and evaluate sources of information
2. Read and analyze primary research papers at an intermediate level
3. Cite references appropriately and become proficient at using a citation management software
4. Model the collaborative environment of research by discussing scientific data and providing constructive feedback to peers both orally and in writing
5. Synthesize and communicate scientific information by writing at an intermediate level

Instructional methods

This class uses a combination of lectures, targeted workshops, and small group interactions with Mentors.

1. Lectures
   - Dr. Fritz will provide 3 key lectures to provide structure and guidance
   - Dr. Dechief will provide 3 active lectures on scientific writing

2. Targeted workshops

Students will participate in 3 required workshops. Two workshops will be facilitated by our partner at the Library, and the third workshop will be facilitated by Dr. Fritz or another MIMM faculty member. These workshops will be offered on a rotating schedule that will be posted at the beginning of the semester. This arrangement will allow groups of ~25 students to participate in hands on workshops to develop key skills. These workshops are:

a. Literature search workshop
b. Endnote workshop
c. Critical reading of a scientific paper

3. Small group interactions/Mentors

Students will have the opportunity to sign up to be supervised by a Mentor via MyCourses. Each Mentor will be responsible for a group of 5-6 students. The Mentor will assign their students a topic for their term paper, and supervise their progress for this assignment. These Mentor groups will work together during the semester, during which students will work on their term paper assignment through a series of intermediary steps. You are expected to meet as a group 4 times during the semester. These meetings will focus on:

a. Assignment of topic and discussion of expectations
b. Journal club discussion of scientific paper(s)
c. Feedback on the outline
d. Feedback on the draft

All students are expected to attend class, the workshops, and the small group interactions with their Mentor.

Evaluation and feedback
In this course you will be through a variety of assignments, described further below. The mark distribution for the course is as follows:

	%
Formative assessments	5
Participation in small group interactions	5
Outline	10
Term paper draft	20
Feedback on draft	10
Final term paper	50
TOTAL	100

Assignments
Students will be tasked with completing a series of short formative assessments associated with key lectures. These will be marked based on a simple rubric to be posted on MyCourses.

Participation in small group interactions
The Mentor will be responsible for submitting a final participation grade for the students under their supervision. This mark will be based on completion of a rubric that includes an assessment of the students contribution to group discussions.

Outline
Students must submit a completed outline and will be graded according to a rubric posted on MyCourses

Term paper draft
Students will submit a complete draft of their term paper to their Mentor and to two students in their group. The requirements for this draft and the rubric will be discussed in class and instructions will be available on MyCourses.

Feedback on draft
Students are required to provide detailed feedback on two of their peers' draft papers. The quality of this feedback will be assessed by the Mentor.

Final term paper
Students must submit their final term paper according to the instructions discussed in class and available on MyCourses

Course schedule

Week	Topic	Instructor	Mentor meeting	Deadlines
1	Lecture: introduction	Dr. Jörg Fritz		
2	Lecture: conventions of scientific writing	Dr. Diane Dechief	Meeting #1	
3	Workshop rotations	April Colosimo OR Dr. Jörg Fritz		
4				
5			Meeting #2	
6	Lecture: the outline	Dr. Jörg Fritz		
7	Lecture: integrating research in writing	Dr. Diane Dechief		Deadline: Outline
8	Lecture: the mechanics of scientific writing	Dr. Diane Dechief	Meeting #3	
9	Writing & feedback time			Deadline: Draft
10				
11			Meeting #4	Deadline: Feedback
12				
13	Lecture: scientific writing in context	Dr. Jörg Fritz		Deadline: Final version

Additional statements

- McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures" (see www.mcgill.ca/students/srr/honest/ for more information)

- In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded/ *Conformément à la Charte des droits de l'étudiant de l'Université McGill, chaque étudiant a le droit de soumettre en français ou en anglais tout travail écrit devant être noté (sauf dans le cas des cours dont l'un des objets est la maîtrise d'une langue)*

- The University Student Assessment Policy exists to ensure fair and equitable academic assessment for all students and to protect students from excessive workloads. All students and instructors are encouraged to review this Policy, which addresses multiple aspects and methods of student assessment, e.g. the timing of evaluation due dates and weighting of final examinations.

- © Instructor-generated course materials (e.g., handouts, notes, summaries, exam questions, etc.) are protected by law and may not be copied or distributed in any form or in any medium without explicit permission of the instructor. Note that infringements of copyright can be subject to follow up by the University under the Code of Student Conduct and Disciplinary Procedures.

- *As the instructor of this course I endeavor to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me and the* Office for Students with Disabilities*, 514-398-6009*

- End-of-course evaluations are one of the ways that McGill works towards maintaining and improving the quality of courses and the student's learning experience. You will be notified by e-mail when the evaluations are available. Please note that a minimum number of responses must be received for results to be available to students.

- In keeping with McGill's preparedness planning strategies with respect to potential pandemic or other concerns, the Administration suggests that all course outlines contain the statement: "In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change."

- Additional policies governing academic issues which affect students can be found in the McGill Charter of Students' Rights (see the Handbook on Student Rights and Responsibilities).

- McGill has policies on sustainability, paper use and other initiatives to promote a culture of sustainability at McGill. (See the Office of Sustainability.)

- Guidelines for the use of mobile computing and communications (MC2) devices in classes at McGill have been approved by the APC. Consult the Guidelines for a range of sample wording that may be used or adapted by instructors on their course outlines.

- Since polling records may be used to compute a portion of course grades, **responding as someone other than yourself is considered an academic offense.** During class, possession of more than one response device or using the credentials of another student will be interpreted as intent to commit an academic offense. Please refer to McGill's policy on Academic Integrity (http://www.mcgill.ca/deanofstudents/plagiarism) and code of Conduct (http://www.mcgill.ca/students/srr/honest).

- To maintain a safe and respectful classroom environment, please ensure that any polling responses you submit are appropriate and relevant to the question asked. Please note that unless the poll is labelled as anonymous, your responses are identifiable to the instructor. Please see the Code of Student Conduct and Disciplinary Procedures.