

The University of Western Ontario
Biomedical Engineering Graduate Program

**BME 9550 – Principles of Communication and Knowledge Translation for
Biomedical Engineers**

WINTER 2019 COURSE OUTLINE

COURSE DESCRIPTION: Key concepts in this course relate to the development of skills in scientific communication and knowledge translation, specifically tailored to students in the Graduate Program in Biomedical Engineering. The course covers topics that span various methods of scientific communication expected at the graduate level. It is intended that upon completion of this course, students are well-equipped to apply the communication tools delivered in this class for effective knowledge dissemination and translation of their research.

COURSE INSTRUCTOR: Yara Hosein, PhD
yara.hosein@schulich.uwo.ca
Office hours: *Tuesdays, 11:30AM – 12:30PM, ACEB Rm 2405A*

CLASS LOCATION: Amit Chakma Engineering Building (ACEB) 1420
Fridays; 2:30 – 4:30 PM

PREREQUISITES: *Principles of Communication and Knowledge Translation for Biomedical Engineers* is a required course for students who are currently enrolled in the Graduate Program in Biomedical Engineering (BME). High priority is given to BME trainees. Trainees from other graduate programs may enroll at the discretion of the instructor. All course registrants must have completed an undergraduate degree in a related research area, or have permission from the instructor and program. Enrollment is limited to 25 students.

TOPICS:

- Introduction to Scientific Communication & Knowledge Translation
- Preparing for Advisory Committee Meetings
- Preparing an Academic CV and Cover Letter
- Writing Scientific Abstracts
- Preparing for a Scientific Poster Presentation
- Preparing for a Scientific Oral Presentation
- Introduction to Manuscript Preparation

LEARNING OBJECTIVES:

1. Students will create a database of professional documents that can be easily transferred to different applications.
2. Students will learn about effective methods for creating a cover letter, which will be relevant to the academic and private sectors.
3. Students will learn how to summarize their current research into a scientific abstract and manuscript framework, with the required formatting.
4. Students will be given the learning opportunity to participate as member of the class' abstract and oral presentation review panel.
5. Students will learn how to prepare a research poster that clearly outlines their research findings, with a special focus on effective methods for execution of a poster presentation.
6. Students will learn the required elements for an effective scientific oral presentation (based on their current research). Students will be given the opportunity to present in class and receive feedback from guest judges, the instructor and peers.

COURSE MATERIAL:

There is no specific textbook assigned to this course. Any assigned readings will be provided to students on the course website (OWL).

Below are a few resources that students may find helpful for this course:

- The MIT Guide to Science and Engineering Communication: James Paradis, Muriel L. Zimmerman. The MIT Press Cambridge 1998 ISBN 0-262-16142-7
- How to Write and Publish a Scientific Paper Robert A. Day 5th Edition Oryx Press 1998 ISBN 1-57356-164-9
- Developing a Professional Vita Carl McDaniels, Mary Anne Knobloch Ferguson Publishing; 2nd edition (October 1, 1996) ISBN: 0894341782
- The Craft of Scientific Writing 3rd Edition Michael Alley Springer Verlag New York Inc. 1996 ISBN 0-387-94766-3
- Successful Scientific Writing 2nd Edition Janice R Matthews, John M. Bowen and Robert W. Matthews Cambridge University Press 2000 ISBN 0-521-78962
- How to prepare your curriculum vita Acy L. Jackson McGraw-Hill/Contemporary Books; 2nd edition (October 1996) ISBN: 084424130X

ATTENDANCE & PARTICIPATION:

This course is designed to be interactive, and expects participation from students. Students are required to attend all lectures. Please inform the instructor prior to class if you are not able to attend a lecture.

COURSE SCHEDULE:

Date	Time	Room	Topic	Assignment Distributed
Fri Jan 11	2:30 – 4:30 PM	ACEB Room 1420	Introduction to Scientific Communication & Knowledge Translation	NONE
Fri Jan 18			Preparing for your Advisory Committee Meeting	ASSIGNMENT 1: ACM Report
Fri Jan 25			Preparing an Academic CV and Cover Letter	ASSIGNMENT 2: CV & Cover Letter
Fri Feb 1			Writing a Scientific Abstract	ASSIGNMENT 3: Scientific Abstract
Fri Feb 8			Preparing for Poster Presentations	ASSIGNMENT 4: Poster Presentation
Fri Feb 15			Preparing for Oral Presentations	ASSIGNMENT :5 Oral Presentation
Fri Feb 22			Poster Judging	NONE
Fri March 1			Poster Judging	NONE
Fri March 8			Giving an Oral Presentation Chairing a Presentation	NONE
Fri March 15			Introduction to Manuscript Preparation	In-class workshop
Fri March 22			Oral Presentation Judging	NONE
Fri March 29			Oral Presentation Judging	NONE
Fri April 5			Oral Presentation Judging	NONE

COURSE EVALUATION:

Assignment	Topic	Due Date	Evaluation Weighting
1	ACM Report	Feb 1	20 %
2	CV & Cover Letter	Feb 8	15 %
3	Scientific Abstract	Feb 15	15 %
4	Poster Presentation	Feb 22 & Mar 1	25 %
5	Oral Presentation	Mar 22, Mar 29, Apr 5	25 %

Methods of Evaluation:

All assignments are due on the dates specified above, unless otherwise noted in class.

- *Written assignments* **are to be printed and submitted to the instructor** at the start of class on the specified due date.
- *Digital assignments* (i.e., PowerPoint slides, e-poster) **should be uploaded to the 'Assignments' folder on OWL** by the start of class on the specified due date.
 - ALL uploaded digital files should be appropriately labelled with the student's name, assignment number, and date. (eg. Name_ A1_22 March 2019.doc).

Late or incomplete assignments will not be graded. Assignments will be graded by the instructor, the TA, and peer review (poster and oral presentations).

There is no midterm or final examination for this class.

GRADUATE COURSE HEALTH AND WELLNESS:

The following websites are to encourage graduate students to make health and wellness a priority. Please feel free to visit for more information.

Campus Recreation:

www.westernmustangs.ca/index.aspx?path=crh&tab=campusrecreationhome

Health and Wellness at Western: www.uwo.ca/health/

Mental Health Concerns: www.health.uwo.ca/mental_health/

ACADEMIC OFFENSES:

Scholastic offenses are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offense at the following website: www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf

Plagiarism-checking software may be used for all assigned written work to check for textual similarity.