

# **BIOMEDICAL ENGINEERING (BME) GRADUATE SEMINAR SERIES GUIDELINES Revised Fall Term 2020**

## **1. OVERVIEW**

The graduate seminar series provides a valuable opportunity for all students to improve their skill of presenting their research in form of a broad, yet scientific audience. When important and exciting work is presented in a superficial or boring manner, the scientific message gets lost as the audience becomes disinterested. Therefore, these seminars are intended to help you develop and improve the skill of giving first-class presentations that match the standard of those given by faculty. This document lays out a number of practices that have been considered successful in assisting and enhancing communication between the speaker and audience.

Please note that the seminars are open to the public. Therefore, if you are seeking intellectual property protection for a part of your research project and have not yet submitted your provisional application, you should not disclose that part of your research in the seminar.

## **2. GENERAL GUIDELINES**

### **2.05 Scheduling**

Seminars will take on Tuesdays from 12:30-1:30. All seminars will be hosted virtually via Zoom. Full seminar schedules can be found at

<https://www.eng.uwo.ca/biomed/graduate/seminars.html>

### **2.1. Seminar Attendance**

Seminar attendance is mandatory for all BME graduate students. The seminar organizer will take attendance at all BME Graduate Seminars. In order for all students to remain WGRS eligible, they must attend at least 70% of the graduate seminars on an annual basis. Those students who do not meet the attendance requirement will be contacted (along with their supervisors) by the Program Director/Seminar faculty Advisor, and their WGRS funding will be terminated starting the following academic term.

### **2.2. Seminar Organizer's Responsibilities**

- The seminar organizer will send out an email the week before the seminar to the BME faculty and graduate students announcing the speakers, along with their talk titles and abstracts. In addition, the seminar organizer will also assign each chair a student speaker that he/she will introduce. The organizer is responsible for:
  - Taking attendance at each seminar
  - Keeping record of all students' attendance throughout the year
- To ensure a comfortable transition to virtual presenting, meetings will be held, when possible, the day before seminar to allow all chairs and presenters to get acquainted with the Zoom lecture format.
- In addition, the organizer is responsible for distributing the completed evaluation forms to the respective speakers, after ensuring that all forms contain constructive criticism.

### 2.3. Chair's Responsibilities

The seminar chairs are assigned and included in the seminar schedule at the beginning of the Fall semester. The seminar chair is responsible for:

- Contacting the speaker prior to the seminar to obtain the required information for introducing the speaker at the seminar
  - Name, pronouns, degree, program, supervisor, title of talk
- Introducing the speaker at the beginning of the seminar
- Letting the speaker know if they have gone over their 10-minute presentation time
- Thanking the speaker for their presentation
- Moderating the 5-minute question period
  - Having a pertinent scientific question prepared in case there is no question from the audience
  - Ensuring that the conversation remains focused around the contents of the talk and does not turn into a lengthy debate
  - Ensuring the question period does not go over 5 minutes

### 2.4. Speaker's Responsibilities

Three students will be scheduled each week. All MEdSc and PhD students in their first year will be scheduled near the end of the academic year. Each BME student is allotted a 15-minute slot for their seminar (**10 minute talk + 5 minute question period**). Speakers should wear appropriate business-casual attire when presenting. Speakers are responsible for:

- Submitting their talk title and abstract at least five days prior to their scheduled presentation date.
- Ensuring that their supervisor and one advisory committee member will be present at the seminar, as they will be responsible for grading the speakers.
- Staying within the allotted 10-minute presentation period. Presentations are restricted to 10 minutes and the session chair may stop a presentation going over 10 minutes.

### 2.5. Evaluation

The evaluation form can be found at <https://www.eng.uwo.ca/biomed/graduate/seminars.html>

The criteria for evaluation consist of the effectiveness of communication with the audience, the appropriateness of the level, as well as the quality of the science presented. Each student will be evaluated by the "Committee of the Day". It is strongly suggested that all advisory committee members show up for their students' presentations. After the presentation, the committee will provide each presenter with verbal and written evaluations containing comments and constructive criticism, in order to help students improve their scientific presentation skills.

## 3. AWARDS

Each semester, two students will be awarded a prize of \$500 as recognition for their exceptional presentation. To account for the variability amongst the semester's evaluators, the

awards will not be given to the presenters with the highest evaluation scores; rather, all presenters achieving an average score of 80% or higher (see section 2.5) will be placed into a draw for the prizes. Each term (Fall 2020 and Winter 2021) will have separate pots, and the winners will be drawn and announced following the term's final presentation.

## **4. WHAT MAKES A GOOD SEMINAR**

### **4.1. Opening**

One student will act as the chair, being responsible for introducing the speakers, moderating the question period, and maintaining the seminar on schedule. After introductions, the speaker thanks the chair, greets the audience and briefly states the topic to be presented.

### **4.2. Introduction**

The first few minutes should be devoted to introducing the topic, references to previous work performed in the field by other scientists, and basic background information (including anatomy) required to set the stage for the work you will be discussing in detail. In general, start with general concepts and move to specific (cardiovascular surgery to minimally invasive mitral valve replacement). Explain what is known, what is not known, or what is wrong with what is known (or even limitations in devices/tools currently available) on your given topic. Including this information will guide the audience to your own research questions/objectives as they will be logical extensions from what you just said. Don't assume that you are addressing experts on this topic. You will need to provide background information and frame your research questions in a manner that is appropriate for a general scientific audience.

You may also thank your supervisor and collaborators at this point, or at the end of the seminar, according to your preference.

In order to make the presentation more fluent, an outline may be included. However, please note that an outline that states the stereotypic components of a presentation (Introduction, Methodology, Results, Conclusion, etc.) does not add any value to your talk, and you may therefore omit it. On the other hand, if you decide to break down the presentation into different studies, or organize it as a multi-stage approach, a "road map" would definitely enhance the flow of your presentation.

### **4.3. Methods**

Provide an overview of your study design and experimental protocol employed. State your specific outcome measures (target registration error, contact area, range of motion) and these outcome measures should be referenced back to your research questions/objectives. Describe (briefly). Include figures where possible (apparatus/simulator).

### **4.4. Results**

Present your data in logical sequence (either temporally, or in order of importance). Describe each slide carefully and label all graphs. You should have a result for each of your stated research questions/objectives (answer to each research question). Do not be afraid to remind the audience how the data fits into the overall research questions and broader topic.

#### **4.5. Conclusions**

After sharing your findings with your audience, you should spend a few minutes to discuss their significance and establish the conclusions drawn from your research. Before concluding, it is common practice to briefly summarize your work, re-state your results in the same context as your objectives, and focus on selected items that you would like the audience to keep in mind after your talk. Provide some interpretation for unexpected results and explain what this study contributed to the field. Compare your results with what has been done previously (do your results agree? What did do differently that has added to the literature). State your implication (so what? What is the clinical/industrial/economic/scientific consequences of your work?). This would be considered what most people refer to as “take-home message”, another overused term that you should try to rephrase (i.e., the most significant aspects that you may consider remembering...). Wrap up your presentation by indicating future directions towards the main goal of your research project.

#### **4.6. Question Period**

Following your seminar, there will be a 5-minute question period moderated by the session chair.

Questions may directly refer to aspects of your work that you presented, but they may also extend beyond those borders. You may find some questions simple; however, make sure you answer them with the same attitude, as the listener may not be fully aware of your area of expertise. Answer the questions briefly, and to the best of your knowledge, while avoiding turning the question period into a personal discussion with the respective members of the audience. When in doubt, you will do best by being honest and careful in your response. If you decide to speculate towards an answer, make sure you mention it's a personal opinion. Be ready to repeat a question to the audience if initially hard to hear or awkwardly worded. By rephrasing it in your own words, it shows that you have understood it, while giving the listener a chance to correct you if necessary. This approach is much appreciated, especially when talking in front of a large audience.

#### **4.7. Timing**

The speaker and chair must keep track of time and keep the presentation and the question period restricted to 10 and 5 minutes, respectively.

Make sure that you stay on time during your seminar. The best way to maintain good timing for your presentation is to practice your talk multiple times and if possible in front of fellow colleagues in advance.

It may also be helpful to familiarize yourself Zoom's A/V tools prior to your seminar to avoid running into any technical difficulties during your seminar.

#### **4.8. Scope**

You should always aim to tailor your presentation towards the appropriate audience. For the case of the BME seminars, the audience consists of your fellow colleagues, many of whom have an engineering background, and may have a broad understanding of various concepts in biomedical engineering. However, note that they may have specialized in different areas of expertise, in which case you will need to maintain a slightly general detail level throughout your talk. Nevertheless, you must dive deeper into the principles that constitute a critical part of your work, in order to provide your audience with the necessary level of understanding.