

BIOMEDICAL ENGINEERING (BME) GRADUATE SEMINAR SERIES GUIDELINES Revised Fall Term 2019

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

These guidelines and the seminar schedule are posted on:
http://www.eng.uwo.ca/biomed/current_students/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 a 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:
 - o Taking attendance at each seminar
 - o Keeping record of all students' attendance throughout the year
 - o The organizer will also be in charge of getting the AV equipment ready for the seminar
- To expedite the changeover process, it is recommended that all talks be loaded on the mainframe computer or USB memory stick prior to starting the seminar. If a presentation has been prepared on a MAC and has videos that are incompatible with Windows, the presenters may use their own laptop. If multiple speakers are using MACs, please ensure the talks are loaded onto the same computer.
- 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, degree, program, supervisor, title of talk
- Introducing the speaker at the beginning of the seminar
- Coordinating the lights at the beginning and end of presentation
- Giving the presenter a warning one minute before the 10 min presentation period is up
 - giving definitive signals to finish once a one-minute overtime has run out
- 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 MESC 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). Presenters must arrive at the venue at least 15 minutes prior to the seminar to load their presentations onto the designated computer. Speakers should wear appropriate business-casual attire when presenting. Speakers are responsible for:

- Submitting their talk title and abstract at least two weeks prior to their scheduled presentation date.
- Loading their presentation on the mainframe computer in the seminar room prior to starting the presentations
 - If a presentation has been prepared on a MAC and has videos that are incompatible with Windows, the presenters may use their own laptop
- 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 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". This committee will be scheduled in advance, and consists of the following members:

- speakers' supervisors
- speakers' advisory committee members
- three students from the department, who will be appointed by the seminar organizer

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. WHAT MAKES A GOOD SEMINAR

3.1. 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.

3.2. 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.

3.3. 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).

3.4. 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.

3.5. 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.

3.6. 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.

3.7. 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 with the venue and the audio-visual (AV) components prior to your seminar to avoid running into any technical difficulties during your seminar.

3.8. 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.

4. SEMINAR AWARDS

To promote excellence in scientific communication and recognize students in the program who deliver outstanding seminars, the School of Biomedical Engineering will annually present awards to three students who deliver the best presentations in the year's seminar series as judged by faculty and student evaluators. The awards are as follows:

- a. Gold Seminar Award: \$1000 and a certificate issued by the School of Biomedical Engineering
- b. Silver Seminar Award: \$500 and a certificate issued by the School of Biomedical Engineering
- c. Bronze Seminar Award: \$300 and a certificate issued by the School of Biomedical Engineering