BME598 Technical Project Guidelines

(December 2022)

Calendar Description

BME598 MEng Technical Project Units: 3.0

A significant technical design project in Biomedical Engineering completed under the supervision of a faculty member. This design experience is based on the knowledge and skills acquired in earlier coursework. Projects may originate from faculty members, students, or external sources.

Students can choose to work in teams or individually from a list of projects provided by the program which will include projects related to faculty members' research programs or those provided by industry partners. If projects are completed in teams, each team member must identify a specific scope that will stand apart from that of other team members so that at the end of BME598, all team members can present a body of work specific to their degree requirements.

Students may also choose their own projects. The final project work is equivalent to two (2) taught courses.

Registration

Students may register in BME598 in any term. Registration in the course will require permission from the program. To get permission, the student must submit a summary (up to 500 words) of the technical project to bme.coord@uvic.ca for approval by the student's supervisor and the graduate director. Please see below for information on finding a supervisor. Students who plan to complete the program in 16 months should register no later than term 4.

Finding a Supervisor

BME598 is a student-led project completed with a supervisor from the Department of Mechanical Engineering. It is the responsibility of the student to secure a supervisor, usually by using one of the following processes:

- <u>Student-led</u> identification: The student initiates a discussion with a supervisor and in collaboration with the supervisor, completes the project summary for registration purposes. Both the student and supervisor must agree upon the project definition and scope before undertaking significant progress toward completing BME598.
- <u>Student-Program collaborative</u> identification: Students may seek assistance from the graduate program director to help identify a supervisor. The program director will meet with the student to identify student needs and attempt to match the student with a supervisor who is active in the student's area of interest. Following the match, the student will lead discussions with the prospective supervisor and work toward completing BME598 registration. To initiate this process, send a request to bme.coord@uvic.ca.

Supervisory Committee

The supervisor will normally coordinate the formation of the supervisory committee in consultation with the student. The supervisory committee will have at least 2 members, one of whom is the primary

supervisor. All members of the supervisory committee must be a member of the Faculty of Graduate Studies.

Industry Collaboration

Some BME598 projects might involve collaboration with individuals outside of Mechanical Engineering including those from the commercial or public sector. In such cases, the student and supervisor will be asked to detail arrangements for data ownership, confidentiality, intellectual property, copyright, and rights to publish. Contact bme.coord@uvic.ca to learn more about forms and processes to formalize these arrangements. There will be a mandatory session before the start of term to go over forms and agreements, policies, student and supervisor expectations and responsibilities, and course deliverables. Contact bme.coord@uvic.ca to initiate the process and plan the session.

Scope

Students will be required to perform a literature review on their topic, generate techno-economic assessments and intellectual property scans, produce a technical design/prototype, and compile the information into a formal report.

Oral Examination

Students may proceed to an oral examination when the supervisor is satisfied that the project represents an examinable document for the degree requirements. Before proceeding to the oral examination, students should normally have a cumulative grade point average of not less than 5.0 on all courses taken for credit in the Faculty of Graduate Studies. The oral examination will be conducted by an examining committee.

Examining Committee:

The role of the examining committee is to assess the independent work and to conduct an oral examination based on that work. The examining committee may also evaluate and examine other aspects of the degree such as specified course work or an understanding of any required reading list. The examining committee will consist of the supervisory committee and an examination chair.

Please refer to the BME598 Oral Examination document for instructions.