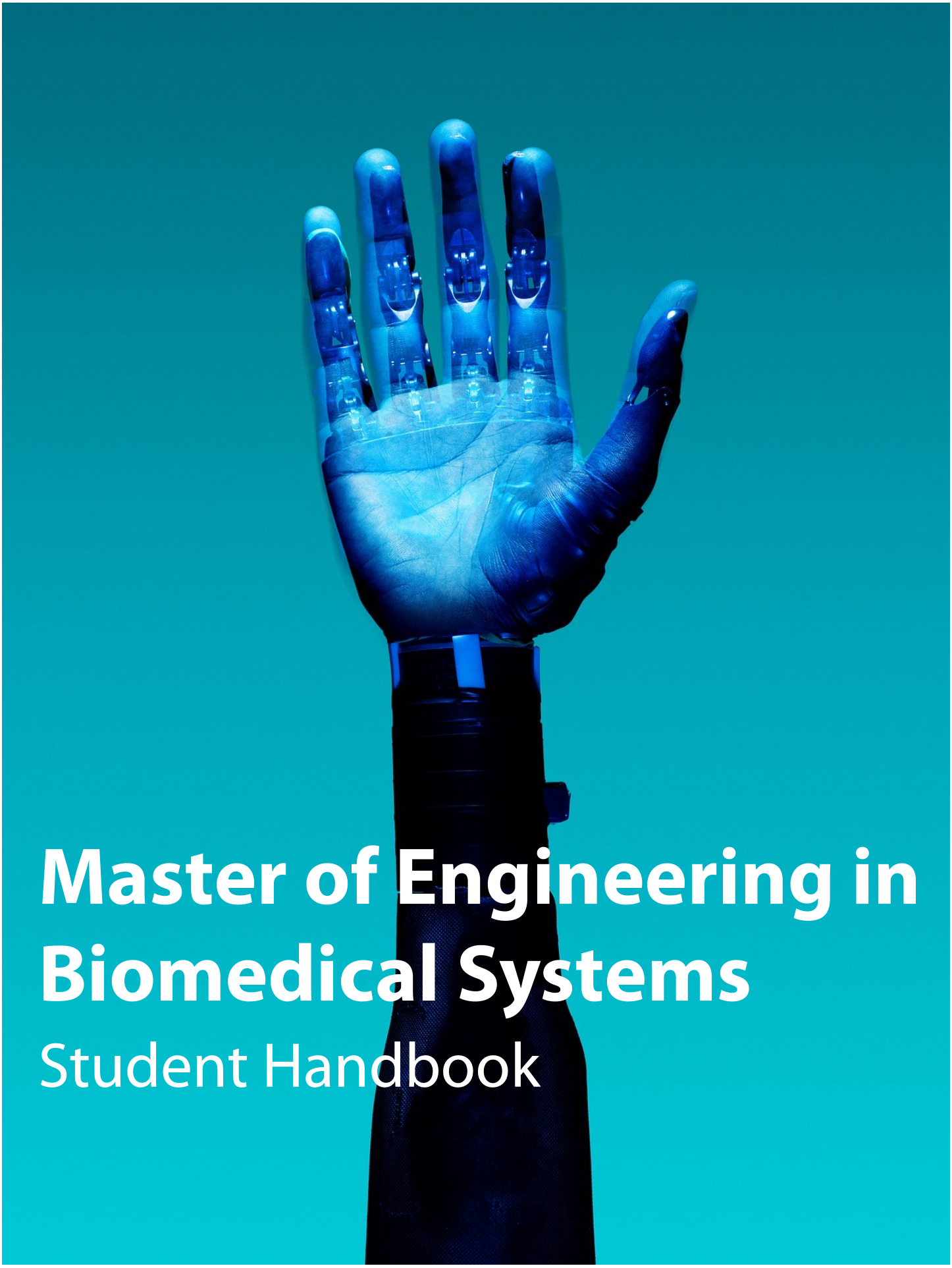


Master of Engineering in Biomedical Systems

Student Handbook

Table of Contents

Welcome

This handbook will provide you with important information about the city of Victoria, the University of Victoria (UVic), the Faculty of Engineering and Computer Science, and the Master of Engineering in Biomedical Systems. Please read this guide carefully.

We have done our best to provide you with up-to-date information but some of this information are subject to change. Please use this handbook alongside other official documents and/or webpages to help you plan your studies at UVic.

UVic is located in Victoria on Vancouver Island in the province of British Columbia, overlooking the Pacific Ocean on one side and the snow-capped Olympic Mountain Range on the other. Residents enjoy a mild climate all year round and participate in a wide variety of outdoor activities any time of year. Downtown Victoria boasts of distinctive architecture, a vibrant culture, and excellent cuisine. Our campus features the beautiful First Peoples House, the Finnerty Gardens, and a number of walking and jogging trails through serene woods and is only a short distance away from beaches and quaint villages. All these make UVic an ideal place for study, personal and social growth, and recreation.

UVic is one of Canada's leading research-based institutions that offer innovative programs, real-life and creative learning, and a diverse and inclusive community in our breathtaking West Coast campus. UVic's Faculty of Engineering and Computer Science (ECS) is known for pushing the edges of applied science, creating tangible solutions to real-world problems, and making an impact in areas such as sustainable housing and energy systems, virtual reality simulations that help people understand natural phenomena, medical devices that will improve the health of people around the world, and new applications of machine learning and artificial intelligence.

The Master of Engineering in Biomedical Systems is offered by Biomedical Engineering and the Department of Mechanical Engineering.

Academic Information

Students in the Master of Engineering in Biomedical Systems are bound by policies set out by the University of Victoria (UVic), the Faculty of Graduate Studies (FGS), the Faculty of Engineering and Computer Science (ECS), and the Department of Mechanical Engineering (MECH).

Please familiarize yourself with policies, especially the UVic Policy on Academic Integrity and the Discrimination and Harassment Policy as well as the Faculty of Engineering and Computer Science Standards of Professional Behaviour.

Contact Information

The graduate secretary should be the first point of contact for all program inquiries.

Department Chair	Dr Brad Buckham	mech.chair@uvic.ca
Program Director	Dr Christopher Dennison	dennison@uvic.ca
Graduate Secretary	Annick Chen	engrgsecp@uvic.ca
Graduate Admissions & Records Office (GARO)	Sandra Baskett, GARO Advisor	grad6@uvic.ca

Program Information

The MEng in Biomedical Systems is a professional program that prepares graduates for careers in biomedical device and systems design and development. Graduates will gain technical skills useful in a professional environment. An MEng degree is not normally a pathway to a PhD in Canada.

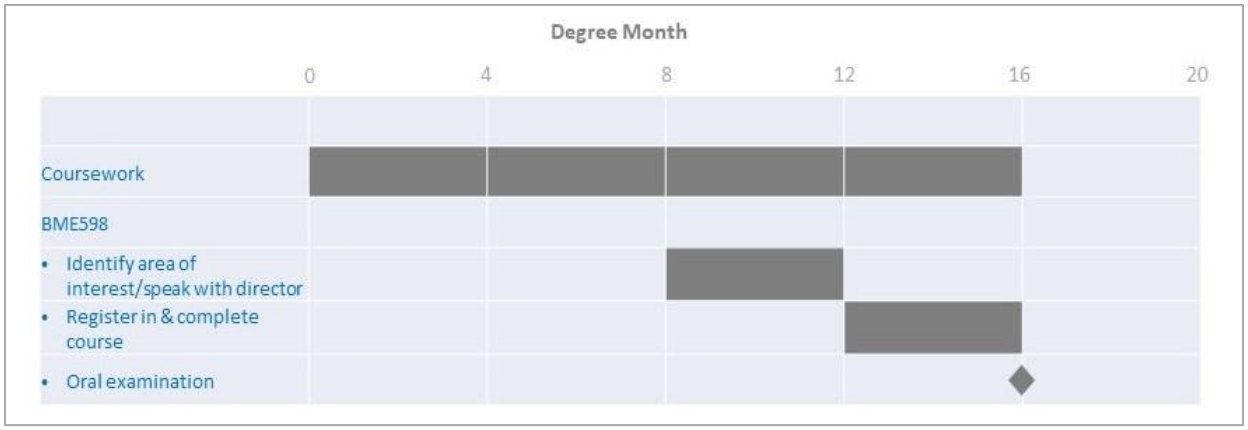
You are expected to familiarize yourself with the program requirements and to register in core and elective courses as applicable. Please refer to the program website for current timetables. The latest official UVic Academic Calendar shall have precedence over all information contained in this handbook.

The minimum program length is 12 months. Most students complete the program in 16-24 months.

Course Credits

Courses are valued in terms of unit and are between 1.0 and 2.0 units. A 1.0-unit course meets 2 hours per week, a 1.5-unit course meets 3 hours per week, and a 2.0-unit course meets 4 hours per week.

Suggested Timeline



Students are expected to follow the schedule below:

	Fall	Spring	Summer
Core Courses (Note: The terms in which these courses are offered are subject to change.)	BME500 BME501	BME520 BME505	
	BME598: Students will normally register in BME598 as their final degree requirement before graduation.		
Elective Courses	Students must take 6.0 units of electives from the electives list and can spread these courses over several terms. Students may request permission to take courses outside of the prescribed elective list.		

Use the checklist below to keep track of degree requirements. Please note that students are responsible for ensuring that all degree requirements have been satisfied as outlined in the UVic Academic Calendar. Any errors or omissions on this handbook do not absolve students from having to complete all of the program requirements. In case of any discrepancy, the UVic Academic Calendar must be considered the definitive authority.

CORE COURSES	ELECTIVE COURSES
☐ BME500 ☐ BME501 ☐ BME505 ☐ BME520 ☐ BME598	Students must take 6.0 units of elective courses: ☐ Elective 1 ☐ Elective 2 ☐ Elective 3 ☐ Elective 4

Students should contact the program director for advising on the academic aspects of their program.

BME598 Capstone Project

BME598 is a 3.0-unit capstone design project completed under the supervision of a faculty member. This design experience will train students to be critical consumers of research conducted in the fields of biomedical engineering and systems. Students will work on their own or in teams on projects that may originate from faculty members, students, or external sources. Please refer to the BME598 Guidelines (Appendix 1) for detailed information.

Funding

The MEng Biomedical Systems program is self-funded, and students must secure their own funding before beginning their studies. BISY students will not be nominated for UVic fellowships or awards.

BISY students may apply for teaching assistant positions in the Department of Mechanical Engineering. Please visit the website for TA eligibility and postings.

Student Support

Academic and Professional Development

There are a variety of tools and resources to help graduate students succeed in their academic program and prepare for a career:

Centre for Academic Communication (CAC)
Co-op and Career Services
Learning and Teaching Support and Innovation (LTSI)

Accessible Learning

If you have a learning disability, physical or sensory disability, or a mental or chronic health condition that presents a barrier to your education, you can apply to the Centre for Accessible Learning (CAL) for academic accommodations. The Centre will work with you and your instructors to create learning environments that are equitable, inclusive and usable. You need to register for this program. It is recommended that you register early as the Centre gets very busy in August and September.

BISY Design Studio

ELW A229 is space designated for BISY students. The room is equipped with desks, lockers, computers, and printers. An access card is required to access the Design Studio. You can purchase the card at the bookstore for a non-refundable fee of $10.00.

Students can also book study spaces on campus.

Child and Family Care

Graduate students with families are welcome at UVic. Check Residence Services if you are eligible for family housing and Child Care Services for the programs that they offer. Please note that there is normally a high demand for space at UVic's childcare facilities and new families must apply to the waitlist, so plan accordingly.

Graduate Students' Society

The Graduate Students' Society (GSS) is an independent not-for-profit society that advocates for graduate students and provides information on academic concerns. It is based in the Halpern Centre for Graduate Students, also known as the Grad House. All graduate students are members of GSS.

International Centre for Students

The International Centre for Students (ICS) is a significant resource for international students. Their website offers a range of information to help students prepare to travel to Canada, live in Canada, and make the most of the international student experience. Their office provides immigration and settlement advising and support for international students through programs and events that foster intercultural connections and cultivate an inclusive and globally minded campus.

Appendix 1

BME598 Guidelines

(July 2024)

Calendar Description

BME598 MEng Technical Project Units: 3.0

A capstone design project in Biomedical Engineering completed under the supervision of a faculty member. This design experience will train students to be critical consumers of research conducted in the fields of biomedical engineering and systems. Students will work in teams on projects that may originate from faculty members, students, or external sources.

The final project work is equivalent to two (2) taught courses.

Registration

Students may register in BME598 in any term during their program. Registration in the course is through the registration portal.

Project Types

1. **Individual project**

   Students will complete BME598 individually with a faculty supervisor's help. They will independently complete the final BME598 deliverables (technical report, presentation) and present final project deliverables to an exam committee.

2. **Team project with individual scope**

   Students will complete BME598 with a team of other students. Each student in the team is responsible for delivering a project plan with a unique scope not duplicated by other team members. Each student individually completes the final BME598 deliverables (technical report, presentation) and presents their final project deliverables to an exam committee.

3. **Team project with one scope**

   Students will complete BME598 with a team of other students. All students work on the same project scope and co-author the final BME598 deliverables (technical report, presentation) and present their final project deliverables as a team to an exam committee.

Structure

Students, whether working on an individual or a team project, will be required to define their project and its scope, perform a literature review of key areas, conduct technical engineering work, generate a written report, and present the report orally.

All students must attend regularly scheduled check-ins/classes with the instructor-in-charge.

Assessment

All students, regardless of the type of project they are undertaking, will be required to complete and submit documents as they go through the project phases. Many of these documents will be reviewed and will require the approval of the supervisor and the instructor before students can progress through to the next step or phase.

Please use the checklist below or the progress tracking sheets to plan your progress through the course.

Phase 1 (Month 1)

- ☐ Project Proposal and Scope
- ☐ Project Summary and Team Charter
- ☐ Milestone and critical path planning
- ☐ Team and Peer Review
- ☐ Progress Tracking

Phase 2 (normally Month 2-3)

- ☐ Critical review of literature justifying project scope
- ☐ Revised Project Summary and Team Charter, if applicable, and updated Gantt chart
- ☐ Technical work documentation (progress and key results)
- ☐ Completion of technical engineering work with supervisor sign-off
- ☐ Team and Peer Review
- ☐ Progress Tracking

Phase 3 (Month 4)

- ☐ Technical report outline
- ☐ Final technical report with supervisor sign-off
- ☐ Draft presentation and oral exam planning (checklist for oral exam submitted to graduate secretary)
- ☐ Team and Peer Review
- ☐ Oral exam