BME 597: Master’s Project
0-6 credits
Department of Biomedical Engineering

To register for BME 597, you must:
1. Submit a completed BME Master’s Project proposal form to Ina Gjencaj
2. Be assigned or identify a BME faculty advisor
3. Email the registrar@wpi.edu

Definition of a Master’s Project:
A Master’s Project is an open-ended project related to the field of Biomedical Engineering. It may be completed within a laboratory setting at WPI, or in collaboration with an outside sponsor (e.g. industry partner or clinical partner). All projects must include the following components:
- Goals statement and a defined Sponsor / client
- Written documentation, including a literature review and defined methods and analysis. Examples include engineering processes, designs, plans, or computational modeling.
- Deliverable. Examples include a report, prototype, patent, or other product.
- The project must:
  o include data collection/generation/analysis.
  o include statistical analysis/testing in some context
  o represent novel work by the student(s)

Finally, the project must be presented publically in some format.

Within this document, the term “Sponsor” denotes the primary technical advisor on the project. For off-campus projects, the Sponsor is usually the student’s direct supervisor. For on-campus projects, the Sponsor is typically also the Faculty Advisor. The term “Advisor” refers to the WPI faculty member who is responsible for ensuring the student fulfills all Departmental requirements for the project.

Expectations:
- **Minimum** of 4-5 hours per week of work on the project per credit hour
- **The project is above and beyond your expected job duties.** You are expected to spend time outside of a paid internship or coop on this project.
- Regular check-ins with project advisor, to be agreed upon between student and advisor

Deliverables:
1. **Project Plan (due 3rd week of the first Semester)**
The project plan should be developed by the student, in consultation with the Sponsor and Advisor. All three individuals must approve the project plan.
   - Format:
     - 2 pages maximum (doesn’t include references)
     - **Title:** Give a brief, descriptive title for your project
     - **Background and Significance:** Brief (<1 page) description of the problem you will address in your project. Give an overview/summary of the problem, how others have approached this problem (literature/technical review) and conclude with a description of the specific approach you will take.
     - **Technical Approach:** Briefly (<1 page) list the technical goals and describe the approach you will take. Explain the rationale for choosing this approach. How will you evaluate whether you are successful?
- Anticipated Outcomes and Alternative Approaches: Concluding paragraph (3-4 sentences maximum) to state the expected outcome of the proposed project. Briefly mention potential limitations, i.e., what, if anything, might not go according to plan? What alternative approaches could you consider?

2. Project Product
   - You must deliver your agreed-upon project outcome to your sponsor. Examples of project outcomes include:
     - Technical reports or manuals
     - Prototypes, methods, or analyses
   - You must document your project in a **Final report**. The final report must include all required aspects of a Master’s Project listed in the Definition above.

3. Final presentation *(scheduled with Advisor and Sponsor)*
   - You must present your project publically. This can be presented as a departmental seminar, presentation to a laboratory or company, website, or another format that is amenable to public commentary.

**Approvals:**
- A departmental committee consisting of the Advisor and two members of the Graduate Studies Committee will be responsible for approving the Master’s Project. Approval is contingent upon the Project fulfilling all Departmental requirements. If the project is performed with an external Sponsor, the committee shall consult with the sponsor prior to approving the final product.

**Grading:**
- The Advisor, in consultation with the Sponsor if appropriate, will assign letter grades each semester of enrollment.

**Grading Policy:**
- A - exceed stated deliverables and advisor’s expectations
- B - complete stated deliverables and meet advisor’s expectations
- C - complete stated deliverables below advisor’s expectations
- D - only partly complete stated deliverables or completed with substandard work
- F - inadequate/no work completed