

BME 490 Study Proposal

This study plan must be submitted to Dr. Ian Schneider, Director of the Biomedical Engineering Minor, prior to enrolling in BME 490 – Independent Study. Please prepare this plan in consultation with your Project Supervisor, whose approval verifies that the planned effort justifies the number of proposed credits. Typically you should expect to spend 3 to 4 hours per week per credit hour. Please fill out this fillable pdf electronically. Hand-written forms will not be accepted.

Project Title: _____

Project Supervisor Name: _____

Student Name: _____ ID#: _____

Classification (Sr/Jr/..): _____ Enrollment Term(s): _____ Credits Each Term (1-6): _____
Note: 6 cr. Maximum applied to Tech Elects.

1. Course Objectives:

Describe the topic you plan to study. Indicate what you hope to learn as a result of this independent study. How does this relate to biomedical engineering?

2. Approach to Independent Study:

List the specific activities planned for the semester. Include a tentative timeline showing the anticipated number of weeks you plan to work on each activity during the term.

3. Methods for Reporting Progress and Demonstrating Achievements:

Describe how you will interact with your Project Supervisor during the term (weekly meetings, e-mail summaries, etc.) and identify the project's "deliverable," whether that be a written report, presentation, draft of a journal article, etc.

4. Covid-19 Health and Safety Acknowledgment

BME 490 contains experiential components that are critical to the achievement of its learning outcomes. Due to the nature of the course activities and/or the use of specialized equipment or spaces for the course, the department delivering this course has determined that these activities can only be effectively delivered in an in-person format in which not all standard health and safety measures may be feasible. This mode of delivery may pose increase risk levels of exposure to COVID-19 for the students and personnel due to:

1. Settings where ideal physical distancing recommendations cannot be met
2. Settings where use of face coverings may pose safety risks or prevent achieving course outcomes and are therefore not required or non-permissible.
3. Settings where disinfecting procedures may not be practical for all surfaces.

The faculty instructor will outline specific safety measures that will help mitigate the risks associated with the learning experience. Complying with the safety measures is required for participation in the course.

If you are unable to or unwilling to participate in the course experience due to the increased risk level or inability to comply to the safety measures, you must notify the instructor immediately. The instructor and/or department will communicate alternative options, if available, including but not limited to dropping the course and taking the course in a future semester, identifying an alternative course or other options.

In signing this agreement, I acknowledge that I have read, understand, and accept the content of this statement regarding the health and safety expectations for the course, as well as the associated inherent risks of this course and that the instructor(s) will communicate any additional specific safety expectations for the course through the course syllabus or other course content. I agree to comply with the health and safety requirements in order to participate in the course. I also agree that I will notify the instructor immediately if I am unable or unwilling to participate in the course experience for reasons related to increased risk and/or compliance with safety measures.

Approval:

Student

Date: _____

Project Supervisor

Date: _____

Director, Biomedical Engineering Minor

Date: _____

SAMPLE BME 490 Study Proposal

This study plan must be submitted to Dr. Ian Schneider, Director of the Biomedical Engineering Minor, prior to enrolling in BME 490 – Independent Study. Please prepare this plan in consultation with your Project Supervisor, whose approval verifies that the planned effort justifies the number of proposed credits. Typically you should expect to spend 3 to 4 hours per week per credit hour. Please fill out this MS Word form. Hand-written forms will not be accepted.

Project Title: Literature Review of the Biomechanics of Ataxic Gait

Project Supervisor Name: Alice Smith

Student Name: Brian Jones **ID#:** 999-999-999

Classification (Sr/Jr/..): Jr **Enrollment Term(s):** Spr 2007 **Credits Each Term (1-6):** 3
Note: 6 cr. Maximum applied to Tech Elects.

1. Course Objectives:

Describe the topic you plan to study. Indicate what you hope to learn as a result of this independent study. How does this relate to biomedical engineering?

- The topic of this independent study is a comprehensive literature review of the biomechanics of ataxic gait. I have a great interest in biomechanical responses to various neurologic conditions and I have recently become very interested in ataxic gait and would like to learn more. Dr. Smith is an expert in gait analysis and has agreed to supervise my literature review and her research group will provide an outstanding support for me in this work.
- I hope to better understand the underlying genetic mechanisms of this unusual gait pattern and explore interventions.
- Biomechanics of gait is one of the broad areas within the larger discipline of human biomechanics.

2. Approach to Independent Study:

List the specific activities planned for the semester. Include a tentative timeline showing the anticipated number of weeks you plan to work on each activity during the term.

- Develop a list of search terms to be used to explore the archival literature (one week)
- Create a list of possible journal papers that meet the criteria (two weeks)
- Refine the list of journal papers – eliminating those that focus on non-genetic sources of ataxic gait (two weeks)
- Review remaining journal papers to identify the techniques used to measure gait patterns and develop interventions for this disorder (five weeks)
- Write a technical report that summarizes my approach to conducting this literature review and highlight the major findings (six weeks)

- I also plan to participate in the weekly Smith research group meetings and will report my findings to the group at the end of the semester

3. Methods for Reporting Progress and Demonstrating Achievements:

Describe how you will interact with your Project Supervisor during the term (weekly meetings, e-mail summaries, etc.) and identify the project's "deliverable," whether that be a written report, presentation, draft of a journal article, etc.

Interactions with Project Supervisor:

- I will participate in the weekly group meeting of the Smith research group
- I will have formal reports to Dr. Smith each month summarizing my progress

Project deliverables:

- Comprehensive technical report
- Formal presentation to Dr. Smith's research group

Approvals: