This course is only available to MBB honors students who have chosen to take Option B which is an ISS over two semesters. It is comprised of MBB 491-5 and MBB 492-10.

Two-thirds of a full-time commitment to laboratory research in an area of molecular biology or biochemistry for preparation of a thesis for the honors degree in molecular biology and biochemistry. Prerequisites: MBB 491 with at least 90 semester hours in an MBB honors program and permission of the MBB department. Minimum 3.0 cGPA and uGPA.

- Attach a copy of your advising transcript to this form before seeing the instructor.
- Find a faculty member willing to supervise you in this course.
- You and your supervisor will also need to recruit two other faculty members, to serve on a committee which will determine your grade in the course. At least one member of the committee must be an MBB faculty member.
- In consultation with your supervisor, prepare a one page "letter of intent" (LOI) describing the goal(s) and outlining possible experiments for your proposed research project. Your committee must read and approve this document, before you submit it to the MBB office by the end of the last day of exams of the semester preceding the ISS.
- You will be registered for this course once the LOI, advising transcript and signed form have been received and approved by the chair of the MBB departmental undergraduate curriculum committee (DUCC).

*Please refer to back of this sheet for more details.*

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Student Name: ____________________________
Student Number: ____________________________ E-mail address: ____________________________
Faculty Supervisor: ____________________________ (signature)
Committee member: ____________________________ (signature)
Committee member: ____________________________ (signature)

By signing this form, you indicate that you approve of the Letter of Intent and agree to serve as a committee member. This entails providing feedback on the proposal, evaluating and grading the thesis as well as participating in and grading the oral defense.

DUCC Chair ____________________________ Date: ____________
In the semester preceding your ISS semester:
You will need to find a supervisor willing to supervise you. The supervisor can be an MBB faculty member, MBB associate or adjunct faculty member, or a member of another department pending approval by the MBB DUCC. The sooner you arrange this, the more options are available to you, as labs do fill up. You and your supervisor will also need to recruit two other faculty members, to serve on a committee, which will determine your grade in the course. At least one member of the committee should be an MBB faculty member. You should get extensive feedback from your prospective supervisor re: options for, and the scope of particular research projects in the lab. In consultation with your supervisor you should prepare a one page Letter of Intent describing the goal(s) and outlining possible experiments for your proposed research project. Email your LOI to your committee members, who must read and approve this document before you submit it to the MBB office by the last day of classes of the preceding semester. You should hand in the approval form with signatures and your letter of intent to the MBB office for approval by the MBB departmental undergraduate curriculum committee (DUCC). Keep a copy of this sheet for your reference. Once your LOI is approved by the DUCC, you will be registered in these courses.

By the end of the second week of classes of the ISS semester: A final written proposal (maximum of 5 pages, double-spaced, excluding figures and references) must be provided to your committee members and supervisor, both in hard copy and email form. They will provide feedback and a mark by the end of the 4th week. This mark constitutes 10% of your grade for MBB 492. The proposal must follow standardized guidelines, including the use of a template and proper reference formats. The proposal should include a statement of the goals for the research program, a brief summary of the most significant literature related to the topic and of research progress in the faculty member’s lab, and a description of the proposed research, including a consideration of the methods to be used. It may also be helpful to provide an approximate timeline of experimental goals through the semester. Samples are available to peruse in the MBB office.

Before you begin your ISS: Your supervisor will outline expectations regarding lab work. Typically, a 15 credit ISS means working full-time on your project (40 hours per week); 5 or 10 credits proportionately less. You should keep a good record of your experimental work, and you will likely attend lab meetings at which you may be asked to present your work in progress. 40% of your grade for MBB 492 will be based on your lab performance. Students are required to take the lab facilities tour and the complete set of SFU safety workshops; these are typically scheduled in the second week of each semester.

Towards the end of the ISS semester: You should start writing your final report in the form of an Honours Thesis—the first part will often be an expansion of what was written for the initial proposal, followed by sections outlining results and discussion (separate or combined), conclusions and possibly a prospectus (future experiments). The grade for the thesis will constitute 30% of your mark for MBB 492. You should also contact your committee to organize a date for a public oral presentation of your work, to be evaluated as part of your final grade. This should be done well in advance of the desired date to ensure all committee members are available and a room is free. The MBB dept. will publish a schedule of ISS presentations to encourage people to attend.

At end of ISS semester: Oral presentation: at or near the end of the semester, you will give a 30 minute talk on your research, open to the public. This talk will usually follow the outline of your thesis (intro, results, discussion etc.). This will be followed by questions from your committee. Your performance in this oral defense will constitute 20% of your mark for MBB 492.