Biochemistry 4R12 Guidelines  
(Draft)

The following information is for students Biochemistry 4R12 in their senior year.

Undergraduate Student Research Guidelines

Undergraduate research is considered a vital component of learning by the department of Biochemistry and Biomedical Sciences, and is therefore a degree requirement for students enrolled in both the Molecular Biology and Biotechnology & Genetic Engineering specializations. In their senior year, students will have the opportunity to conduct original scientific research in a faculty member’s laboratory. On some occasions, students have been able to accomplish work that has contributed to a scientific publication.

The following information will help in the selection of an appropriate research course, a potential supervisor and research project.

Course Basics

Students can 12 units of research, depending on the cumulative average (CA) achieved at the end of their third year. This course involves original research and the completion of a thesis.

Biochem 4R12: A 12-unit senior thesis based on a major research project in Biochemistry and Biomedical Sciences. Assessment is based on laboratory work (an average of approximately 20 hours per week over two terms), two oral presentations and a final thesis report. Minimum CA of 10.0 is required.*

Making Arrangements for a Research Supervisor and Topic

In the fall of their third year, students should begin to think about potential supervisors and research projects for their senior year. The selection of a research topic should derive from a student’s course experience and interests. It is recommended that students review the research interests of the faculty and associate faculty members in the department and schedule an interview with at least 3 members to discuss possibilities for a research project. Supervisors must be full-time members or associate members of the Department of Biochemistry and Biomedical Sciences. A list of potential supervisors and a description of their research can be found at www.fhs.mcmaster.ca/biochem under ‘Research’. Research posters displayed in the hallways of the Department may also be useful resources in the investigation of your interests.

From September until January, both the students and faculty will have a chance to meet with a number of potential supervisors and potential thesis students, respectively. Final supervisory arrangements will be made during the month of February. A ‘Permission Form’ (which can
be downloaded from the Department’s website) must be filled out by the student, signed by the supervisor and submitted to Mary Margaret Strong in the Undergraduate Office (HSC 4H45). This information must be submitted no later than **March 1**. Course permissions will be put on SOLAR during the summer once the final results for the winter session are in.*

*Students who are unable to meet the required minimum CA for Biochem 4B06, 4F09 and 4R12 at the end of their third year will automatically be considered for enrolment in Biochem 4P03, 4B06 and 4F09 respectively.

If it is possible for students and supervisors to delineate the project before the student leaves in April, it may be feasible for the student to do some preliminary research and reading during the summer months.