



SCIENCE COLLEGE
Concordia University
SCOL 290, 391, 490

Guidelines for Supervisors
Updated May 2023

Students must meet with their supervisor before starting their research and establish how this document will apply to their research project.

The Nature of the Projects

The Science College curriculum requires three courses involving independent research: SCOL 290 (3 credits), SCOL 391 (6 credits), and SCOL 490 (6 credits). Students must choose a project outside of their major for SCOL 290 and SCOL 391 and this should be taken into consideration in assigning them with a project: students will likely be the most junior member of your team and have limited experience with techniques.

SCOL 290 is intended to give students an introduction to the way a research group operates, as well as to the design, execution, analysis and write-up of a research project. Students are expected to spend a minimum of **120 hours** on this course over 1 academic term.

The project should be chosen so as to give the student as much interaction as possible with the activities of the group. It may not be necessary that the research be completed, with a final well-defined goal, nor indeed need it be successful. What counts is that the student understands the long- term objectives and the part that their research will play.

For SCOL 391 and SCOL 490, projects should be designed with a clear end point in mind. Students are expected to spend a minimum of **240 hours** on each course spread over two academic terms. We discourage projects that may drag on for more than two semesters.

There may be some temptation to use the students as unpaid technicians; however, it is essential that the student have a project that is identifiably theirs.

Deadlines

Students must submit the final Research Report to their supervisor *by the last day of classes* of the final term of the project. The supervisor must submit the grade evaluation to the [principal](#) and [administrator](#) of the Science College *by the last day of exams*. Check academic dates on Concordia website for the appropriate term.

Extensions: It is acknowledged that the nature of research is such that delays may occur. Students may request an extension to submit their papers. Requests must be made to the [principal](#) of the Science College in advance with the supervisor's consent.

Grading Guideline for Supervisors

When submitting a grade evaluation for the student, the Research Supervisor should fill out a 'Research Project Evaluation Form'. A sample of this form is attached below, but a Word (fillable) version can be found on the Science College website under 'Key Resources' at:

<https://www.concordia.ca/artsci/science-college/program.html>

When evaluating the student, we would like for the Research Supervisor to take into account the student's efforts in the lab (Lab Work) and the final written research paper (Report).

It is important to gauge the level of the student's success based on the level of the course.

For SCOL 290, it is expected that the student is being introduced to a research lab for the first time, has little to no experience writing a research report, and only has one semester to learn concepts and techniques in a lab/field that is outside their major. They often have little to no training in statistics. This portion (approximately **5 pages**) should follow introduction, method, results, and discussion plus references in the format of a discipline-specific key journal.

For SCOL 391, it is expected that the student has some experience in research, has written a research report previously, and has two semesters to learn the techniques and background literature of the lab. However, this project is still outside the student's own area of study. The typical report will be **10 pages** in length, and will follow a key journal in the discipline, including a brief introduction, method, data analysis, results, and discussion plus references.

For SCOL 490, it is expected that this is the capstone of the student's studies, it is within the student's own discipline, and this should be evaluated as an honours thesis. Following the format of a key journal in the discipline, the paper of approximately **20 pages** will follow standard research format from abstract to discussion with references.

Other things to keep in mind for evaluation student research:

- The student's background preparation (knowledge, readings, understanding of the problem).
- The student's contribution to the ideas and details of the study (originality, initiative, openness of ideas, discussions, questions).
- The student's work in the laboratory, (learning of techniques, performance of tasks, presence/punctuality in the laboratory, interaction with other laboratory members, contribution to other projects, data collection and analysis).
- The final report (content, format, clarity of exposition, understanding of the problem, data treatment, discussion etc.).

Again, please take into account that the students are not graduate students and that SCOL 290 is usually completed at the beginning of their university studies whereas SCOL 490 is the final capstone demonstration of what they've learned.

**Science College
Supervisor's Research Project Evaluation Form**

Student Name:

Supervisor Name:

Department:

Project type: 290 / 391 / 490

Term registered:

Please give a letter grade that reflects your overall evaluation of the student's work relative to others at the same level. When completed, return the form to admin.scol@concordia.ca and principal.scol@concordia.ca

I Lab work

Was the student motivated, reliable, conscientious? Please comment on the student's aptitude for research.

/50

II Report

Is the report clear, demonstrating good understanding of the project? Please comment on the student's analytical thinking and science writing skills.

/50

Total: /100 Letter grade: