



University of Manitoba Faculty of Medicine Guidelines for Clerkship Research Electives

Prepared by: Dr. Rochelle Yanofsky, UGME Electives Coordinator and
Dr. David Eisenstat, B.Sc. (Medicine) Program Director

Students must provide the potential preceptor/supervisor with a copy of these guidelines.

1. **Duration:** The minimum length is 3 weeks and the maximum length is 8 weeks. The recommended minimum is 4 weeks. The length of the research elective should be consistent with the learning objectives. Students may take more than one research elective in accordance with the general guidelines of the Clerkship Electives program.
2. **Timing:** Research Electives may be taken at any time during the Electives period.
3. **Location:** Research Electives will generally be taken at the University of Manitoba and affiliated institutions but special exceptions may be granted by the UGME Electives Coordinator in consultation with administrative faculty including the Associate Dean - UGME, Associate Dean – Students, the UGME Clerkship Director, and/or the B.Sc. (Medicine) Program Director.
4. **Content:** A literature search does not constitute a Research Elective but may be a specific objective within the Research Elective. Case reports, chart reviews, laboratory research, as well as participation in ongoing research studies, are permitted. The supervisor must have prior approval to conduct the research. Approvals may be required from such committees as the following: REB, RRIC, animal care.
5. **Paperwork:** The application form for Clerkship Electives at the University of Manitoba should be completed, and the learning objectives (item #5d) should be appended to the application form that includes:
 - (a) **Dates, duration and location;**
 - (b) **Supervisor:** The supervisor must be a faculty member of the Faculty of Medicine (physician or scientist), and cannot be any of the following: a graduate student, postdoctoral fellow, research assistant, research or professional associate, resident or clinical fellow. If the faculty mentor is not appointed within the Faculty of Medicine, such as from the Faculties of Science or Pharmacy or an allied health professional employed by one of our teaching hospitals, or whose field of study is outside of the health care or biomedical research arenas, a co-supervisor from the Faculty of Medicine must be named;
 - (c) **Title** of research project;
 - (d) **Learning Objectives:** In addition to the general objectives for all research electives (see Appendix I), detailed specific learning objectives consistent with the duration and content of the Research Elective will be developed by the student with the assistance of the proposed supervisor, reviewed and then approved in writing by the proposed supervisor and then appended to the Clerkship Electives application form to the UGME office.
6. **Process:** The Research Electives application form must be reviewed by the UGME Electives Coordinator, and if deemed necessary, subsequently reviewed and approved by the B.Sc. (Medicine) program director as well as other administrative faculty (referred to in #3).

7. **Students:** Any student in "good academic standing" at the time of the application may undertake a Research Elective.
8. **Expectations of the supervisor:** Expectations of the supervisor should be consistent with the stated learning objectives of the Research Elective. The supervisor will:
- (a) Assist the student in **developing** specific learning objectives;
 - (b) Review and provide written approval of the learning objectives prior to submission of the application form;
 - (c) a timely evaluation of the student's performance within a maximum of four weeks after completion of the Research Elective;
 - (d) Meet with the student at least three times (refer to #9);
 - (e) Review and sign the written report (refer to #11).
9. **Supervisor/student interactions:** The number, type and frequency of meetings are to be determined by the supervisor with the student but at a minimum will be (i) prior to commencing the project, (ii) at a mid-point, and (iii) after completion of the Research Elective.
10. **Evaluations:**
- (a) An assessment by the Faculty supervisor must be completed at the end of the Research Elective and will be based upon the stated learning objectives that received prior approval on the Research Electives application form;
 - (b) If the direction of the research has changed, the new learning objective(s) must be stated on the evaluation forms. Submission of a supplementary application form is not necessary;
 - (c) If a specific learning objective is not achieved, a statement outlining the reason(s) for this should be included and does not necessarily constitute an unsuccessful Research Elective;
 - (d) A mid-term evaluation is mandatory; the student and supervisor will meet at a point mid-way through the Research Elective. This meeting will be documented on the final evaluation form.
 - (e) A student evaluation for the supervisor is optional.
 - (f) Credit for the Research Elective will not be granted without completion of all evaluation forms and the written report (refer to #11).
11. **Deliverables:** Research Electives are not the equivalent of a B.Sc. (Medicine) project for which we expect a written thesis and oral presentation at the end of two consecutive summers of research. However, a **one page typed summary** of the Research Elective, reviewed and signed by the student and the supervisor is mandatory. This report is to be submitted with the evaluation forms (refer to #10).

Format of the report:

- (a) The report will be in 11 point Arial or 12 point Times New Roman font, with minimum 2 cm margins (top, bottom, left, right).
- (b) Minimum word count (excluding the title, authors and affiliations, references, acknowledgments) is 500 words.
- (c) Suggested headings will include: (i) Objective(s); (ii) Methods; (iii) Results; (iv) Conclusions and (v) Future Directions.
- (d) Figures and tables are considered acceptable but are limited to one supplementary page. References/cited literature are also limited to one supplementary page. A title page is not necessary.
- (e) Students are also encouraged to present their work at laboratory meetings (if applicable) or at meetings, symposia and conferences at the discretion of their supervisor.

12. **Visiting medical students:** Research Electives *may be offered* to visiting students in accordance with the expectations of the student's "home" university or medical school.

13. Final approval rests with the Faculty of Medicine – UGME Office.

APPENDIX I

General Objectives for research electives done by med students at the U of MB. (These are in addition to the specific objectives outlined for each research elective and will be appended to the guidelines for research electives):

1. To learn about research design, hypothesis generation, and the development of research questions/problem formulation.
2. To learn to access, assimilate, and critically evaluate the medical literature pertaining to the research topic.
3. To learn about research ethics, informed consent, and the regulatory processes that must be followed in the conduct of research - as appropriate to the project.
4. To learn about statistics and data analysis - as appropriate to the project.
5. To conduct research and acquire any skills needed to do so (e.g. laboratory techniques, computer skills).
6. To gather data for the project, interpret the data, and integrate the data with information obtained from the literature review.
7. To write a report about the research project at the end of the elective.
8. To learn about manuscript preparation (if applicable).