

Project Course – ANATCELL 9580

Research Project or Teaching Practicum

COORDINATOR:

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Course Overview

This core course provides the main framework of the graduate student experience. Students are required to manage their time effectively, solve problems, work independently and as part of team, contribute to the community (lab or classroom), and present complex material to a wide audience. Students will be matched with a project and a faculty supervisor by the end of September. A set number of projects will be available, and students will be matched based on interests, previous experience, and compatibility with supervisors. Projects will be posted on the course OWL site. It is the student's responsibility to inquire about opportunities that are of interest. *Start early and ask lots of questions!*

The main objectives of this course are: 1. Encourage critical thinking, problem solving, and time management; 2. Provide opportunities for improving written and oral communication; 3. Working independently and interdependently as part of a team.

Table 1. Student Assessment

Assessment Breakdown
Project proposal – 5%
Literature cited/review manuscript – 20%
Supervisor evaluation – $2 \times 2.5\%$
Committee progress reports ($3 \times 5\%$) – 15%
Mid-term oral presentation – 5%
Project manuscript – 30%
Final oral presentation – 10%
Attendance and participation at seminars – 10%

Concerns? If problems arise, such as challenges with the project or lab environment, the student is expected to discuss these problems with their supervisor **FIRST**. If a resolution is not reached, the student or the supervisor should contact the course coordinator.

Composition of the Advisory Committee

In addition to their faculty supervisor, all students must have a supervisory committee for their research project. Members of the supervisory committee should be viewed as a valuable resource and consulted both informally and during supervisory committee meetings. The supervisory committee will be composed of

the primary supervisor, at least two other faculty members, and a representative of the graduate affairs committee (GAC).

Expectations

Student Responsibility: Students are responsible for reviewing the list of projects and contacting the primary supervisors to discuss a possible match. Students should contact and meet with **at least three** potential supervisors on the list and rank each project in case they do not get their first match. The student is responsible for scheduling the supervisory committee meetings and ensuring they are completed on time as per the guidelines. Students must complete any training required to do the proposed project. Students are expected to contribute positively to the lab/group “culture”, such as attending lab/group meetings, helping other students, and working to help forward the collective goals of the lab/group. Given that clinical anatomy MSc. students have many program commitments outside of research (e.g. coursework, teaching assistantships, and milestones), they must inform their supervisors of these other responsibilities in a timely manner.

Supervisor Responsibility: Supervisors will make initial contact with potential supervisory committee members to ask if they are willing to serve. Normally this will be done soon after the student has started in the program but changes in supervisory committee composition may occur at different times during the degree. Supervisors are also responsible for helping to ensure that supervisory committee meetings occur on time. Supervisors or a designate from the lab/group, must ensure that students obtain appropriate training to carry out the proposed work. We ask that supervisors provide the student with constructive feedback regularly to ensure the student is meeting expectations of the lab/project both informally as well as formally via progress reports and supervisor evaluation.

GAC Responsibility: A GAC member will be assigned to all student supervisory committees. A member of the GAC can act as both a GAC representative and scientific advisor if expertise is appropriate. The GAC member, in consultation with the other members of the supervisory committee, will complete the supervisory committee report forms. The GAC member is also responsible for explaining the results of the reports to the student and answering any questions the student might have concerning the report. At their discretion, a GAC member can call for additional committee meetings should they believe more frequent or additional meetings are warranted.

Supervisory Committee Meeting Schedule

Students *should always feel free to ask for guidance or advice from their supervisors, members of the supervisory committee, and the course coordinators.* However, formal meetings are required to assess progress and provide constructive feedback that will allow the student to continue to develop towards completion of the degree. It is the responsibility of the student to organize committee meetings as listed in the schedule outlined below in Table 2.

Table 2. Committee Meeting Schedule and Assessment Timeline

	Date	% of Mark	Evaluators
Introductory Meeting	September/October of Year 1		Meet with supervisor to discuss main goals, choose committee, and develop a project outline. Meet informally with advisory committee to introduce yourself.
Online safety courses (WHIMIS, animal handling, biosafety training etc.)	Fall of Year 1; Needs to be completed by May at the latest.		
Project Proposal	March 1 of Year 1	5	Should be developed in consultation with the supervisor
Review Paper (10 pages background and 5 pages rationale double spaced; additional pages for figures and references)	May 31 of Year 1	20	Supervisor and one advisor
Committee Meeting # 1 (Project Proposal)	June/July of Year 1	5	Present formal project proposal to committee. Supervisor and committee members to attend.
Supervisor Evaluation # 1	September of Year 2	2.5	Supervisor
Committee Meeting # 2	October (latest in early November) of Year 2	5	Present results and preliminary interpretation. Supervisor and committee members to attend.
Mid-term class presentation	October of Year 2	5	Present background, rationale, and preliminary results to classmates.
Committee Meeting # 3	February (latest early March) in Year 2	5	Present full study to date.
Supervisor Evaluation # 1	April of Year 2	2.5	Supervisor

Final Oral Presentation	April of Year 2	10	Faculty and students to evaluate
Project Manuscript	April 1 of Year 2	30	Two faculty external to the project

**An additional 10% of the final mark is for attendance at student seminars (unless justification is provided) and participation by asking questions.*

Assessment Details

Introductory Meeting: By the end of September or early October (Year 1), students should meet with their supervisor to discuss the main goals of the project and to select committee members. This meeting does not require a formal progress report.

Project Outline: By the end of October (Year 1), students should meet with their entire supervisory committee informally for general introductions and a brief description of the project. This introductory meeting does not require a progress report.

******MILESTONE****Students MUST match with a supervisor and project and have assembled a supervisory committee by December 1 of first term. This match is a required milestone of the program and students who do not meet this milestone will be required to leave the program.**

Project proposal: On March 1 (Year 1), students are required to submit a one-page (single spaced) project proposal that explains the background, rationale, hypothesis, and objectives (with descriptions) for their proposal. Students are welcome to work directly with their supervisor to complete this document.

Review Paper: By May 31 (Year 1), students are required to submit a completed draft of their review paper through the OWL Dropbox link. Copies can *also* be sent directly to supervisors. The purpose of the review is to ensure that students have a general understanding of the field in which their project fits, and how their specific research question(s) relate to the bigger picture. While students are encouraged to use this review to write the introduction for their final paper, this review should provide a more comprehensive background of the field and follow the scope and style of reviews published in reputable peer-reviewed journals in the field. It should be more of a position paper than simply a statement of facts such as would be found in a textbook. Students are encouraged to work with their supervisor to develop an outline, but the manuscript should not receive substantial editing. Review papers will be graded by the supervisor and one other committee member. Reviews received after May 31st will receive a grade of 0. A detailed account of the requirements for this review can be found under the Assessments Resources tab on the course OWL site.

Committee Meeting #1: By mid-July (Year 1), students are required to share their research proposal with their committee through an oral presentation as well as a written proposal. The written proposal must be submitted to the committee at **least 5 business days prior** to the meeting. This meeting is a chance for committee members to provide face-to-face feedback on the student's proposed research and progress-to-date. Students are encouraged to discuss any challenges they are experiencing with their project such that committee members can provide suggestions. This meeting will be evaluated by the supervisor and committee members and *requires a progress report*. Progress reports can be found under the Committee Meetings tab on the course OWL site; please ensure that you print out the Progress Report for this meeting and fill out as much of it as possible to bring to the meeting. A detailed account of the requirements for this meeting can be found under the Committee Meetings tab on the course OWL site.

Supervisor Evaluation #1: In September (start of Year 2), the student's supervisor will evaluate overall performance. This evaluation will be based on the student's commitment, initiative, and record of activity (e.g., lab book). The purpose of this evaluation is to provide the student with feedback and to ensure that expectations are met.

Committee Meeting #2: By the end of October (Year 2), students should formally present their results, preliminary interpretation of results, challenges, and timeline for next steps. Students are required to submit a written document to the committee at **least 5 business days prior** to the meeting. This written document will form the basis for the final written report. This meeting will be evaluated by the supervisor and committee members and *requires a progress report*. Progress reports can be found under the Committee Meetings tab on the course OWL site; please ensure that you print out the Progress Report for this meeting and fill out as much of it as possible to bring to the meeting. A detailed account of the requirements for this meeting can be found under the Committee Meetings tab on the course OWL site.

Mid-term Oral Presentation: In October (Year 2), students will provide an oral presentation to their colleagues based on the background, rationale, and timeline of their project. Preliminary data can also be presented but is not required. Each talk will be 8 minutes with a 4 minute question period. Attendance and participation (such as asking questions to other presenters) is mandatory and is evaluated separately.

Committee Meeting #3: By end of February (Year 2), students will formally present their complete or nearly complete research project to their committee. Students will also provide the committee with a complete draft of their final manuscript at **least 5 business days prior** to the meeting. The purpose of this meeting is to receive feedback from the committee on the manuscript before final submission with enough time for the student to incorporate changes and complete any final data collection. This meeting will be evaluated by the supervisor and committee members and *requires a progress report*. Progress reports can be found under the Committee Meetings tab on the course OWL site; please ensure that you print out the Progress Report for this meeting and fill out as much of it as possible to bring to the meeting. As with the review paper, supervisors and committee members are encouraged to help guide students in the writing of their paper but are asked to not provide in-depth editing. The general flow and content can be heavily influenced by the supervisor and committee, but the final written product should be produced by the student. A detailed account of the requirements for this meeting can be found under the Committee Meetings tab on the course OWL site.

Supervisor Evaluation #2: In April (Year 2), the student's supervisor will evaluate overall performance. This evaluation will be based on the student's commitment, initiative, productivity, record of activity (eg. lab book), and efforts.

Project Manuscript: On April 1st (Year 2) students are required to submit a completed manuscript through the OWL Dropbox link. Reports are to be written in the style of a journal manuscript including an Abstract, Introduction, Methods, Results, Discussion and References as appropriate for the field of study. After submission, the paper will be marked by at least two faculty members other than the supervisor and committee members. Manuscripts received after April 1st will receive a grade of 0. The rubric to be used for evaluation of the manuscript can be found under the Assessments Resources tab on the course OWL site.

Final Presentation: by end of April (Year 2) students will give a formal presentation that should be no longer than 14 minutes, followed by 6 minutes for questions. Sessions will be attended by faculty and other department members. All Clinical Anatomy students must attend each final presentation. Faculty (other than the supervisor and committee members) will grade the presentations. The rubric to be used for evaluation of the presentation can be found under the Assessments Resources tab on the course OWL site.

Supervisory Committee Evaluation Forms from Progress Meetings

Supervisory committee reports and appraisals must be completed for the three committee meetings. A copy of each progress report is to be kept on file in the department office. The student appraisal forms will help to identify areas of strength and weakness. Areas of weakness are expected to show improvement in subsequent supervisory meetings. Committee meeting progress reports will assess the student's progress in: command of current literature; development of the research question(s); understanding of appropriate tools used to address the project; articulation of significance of the project; ability to develop the project beyond the scope initially provided by the mentor. The student should bring the appropriate form to the meeting for the GAC representative to complete.