Theses and dissertations are scholarly efforts that consist of the three components of scholarship set forth in this Handbook. Proposals should be grounded in one of the disciplines in environment and natural resources, should creatively address an applied or conceptual/theoretical problem for that discipline, describe how the study will be conducted, and what the expected results might be. The development of a thesis or dissertation proposal involves two different but complementary activities – 1) the intellectual development of insights and ideas about a problem, and 2) the organization and presentation of a formal proposal for approval by the student’s Advisory/Examination Committee and the Environment and Natural Resources Graduate Studies Committee.

The goal is to expand the body of knowledge in a given field. Scholarly work, therefore, consists of the a) acquisition of significant and extensive knowledge in an area or areas of study, b) synthesis and description of the diverse aspects of knowledge, and c) creative proposition and investigation of a novel aspect or new idea which purports to expand, alter, or clarify the status of knowledge.

Pursuit of scholarly research demands timeliness and focus. It is essential that students select their research topics as soon as possible and begin the scholarly process. Selection of Advisory/Examination Committee members and of the program of study coursework should be guided by the demands of that research topic. The requirements and guidelines provided here are designed to set forth the scholarly expectations of the Environment and Natural Resources Graduate Program and provide the student with a format for demonstrating that they are prepared to pursue their research topic.

**Master’s Thesis:** All master’s students must prepare a thesis proposal during their nine months in the master’s program. This should be a collaborative effort between the student, the advisor, and the Advisory/Examination Committee. It is not expected that the student will be fully conversant in all aspects of the research topic before completing the thesis proposal. The thesis proposal will guide the selection of coursework needed in order to be able to complete the proposed research. A draft of the thesis proposal, approved by the advisor and Advisory/Examination Committee, must be submitted to the Graduate Studies Committee by the third quarter in the master’s program.

**Doctoral Dissertation:** All students must prepare a dissertation proposal during the first year in the PhD program. This should be a collaborative effort between the student, the advisor, and the Advisory/Examination Committee. A draft of the dissertation proposal, approved by the advisor and Advisory/Examination Committee, must be submitted to the Graduate Studies Committee by the first quarter of the second year in the PhD program.
I. Intellectual Development of Insights and Ideas

A. Scholarly development of problems and questions
   1. The best resource for starting your intellectual quest is your advisor. This should involve reading and reviewing the important literature in your discipline or field of study and discussing this with your advisor. The purpose of intellectual development is to identify important gaps in our understanding of phenomena or concepts/theories, and problems with approaches or methodologies, or some combination of both of these.
   2. Conducting literature reviews is an important component in the development of insights and ideas. You will need to be able to identify the literature (i.e., scientific journals, books, proceedings, manuscripts, etc.), and the individual scientists who have contributed to a body of knowledge in your discipline.

B. Designing a study
   1. What will you observe and/or measure?
   2. How will do this?
      a. Will you conduct an experiment with a control and treatments, a quasi-experiment with treatments but no control?
      b. Will you observe and measure phenomena (characteristics of plants, animals, natural systems, human behaviors) and/or concepts, (social surveys, case studies)?
   3. What are the hypothesized relationships between the observations/measurements, or what are the objectives for observing/measuring the specified phenomena?
   4. What do you expect to find from the study?
   5. Realistically, what can you expect to accomplish in 2 years (Master’s thesis) or in 3 to 4 years (Doctoral dissertation)?

II. The Proposal

A. Format - not all proposals look the same. Your advisor, together with your Advisory/Examination Committee, will determine the appropriate form for your thesis or dissertation proposal.
   1. Traditional Format: The traditional format includes three sections (introduction, literature review, and methods).
   2. Thematic or Chapter Format: Some disciplines might produce a series of manuscripts or chapters on separate but interrelated experiments, or a narrative about a case study.

B. Important components
   1. Regardless of the format the proposal should address the following questions:
      a. What is the intellectual/disciplinary context of the study, e.g. a theory, a conceptual model, or an applied disciplinary problem)? (Introduction)
b. Why is this an issue that needs to be addressed? (Introduction)

c. What are your long-term goals, specific short-term objectives, the question(s) you are asking, and/or the hypotheses guiding your study? (Introduction)

d. What is known and what is not known about the theory, conceptual model, applied disciplinary problem? (Literature Review) Your challenge is not simply to summarize what is known/unknown, but synthesize the state of knowledge into a narrative that supports the issue you are addressing and why it is important.

e. How will you conduct your study? (Methodology) This may also include variable transformations, and statistical analyses.

f. What do you expect to find, and how will this add to the body of knowledge or help close gaps in our understanding of phenomena or concepts/theories, and applied problems? (Introduction or Literature Review)

g. What schedule or timeline will you follow to complete your study within 2 years for Master’s thesis or 3-4 years for Doctoral dissertation? (Appendix)

h. A list of references cited in your proposal. Your advisor can give you the correct format for citations, in the body of your proposal, and the reference list that is used in your discipline.