Proposal Process

The following is intended to provide a guideline to the process to aid in identifying a research mentor and formulating a research topic. It is important to understand the limitations of resources available, including time, in designing successful thesis projects. Projects that are required as part of degree program requirements; however, a student may build upon past experiences and training to take the next step for a transformational experience.

Thesis Proposal Process:

- Identify the Thesis Advisor within HRS to mentor you through the thesis
 - The best learning experiences will occur when you select a topic within the expertise of your mentor.
- Establish thesis topic with the guidance of your Thesis Advisor
 - Work proposed must extend beyond requirements for program or a particular course
- Identify a thesis committee member and secure a written commitment
- Develop thesis proposal under the guidance of Thesis Advisor based on thesis guidelines
- Host thesis proposal meeting with student, Thesis Advisor and Committee Member
 - Student must distribute final proposal to committee at least 1 week prior to the proposal meeting.
 - The preference of the format of the final thesis proposal document (electronic or paper) must be honored by the student for dissemination.
 - 1 week prior to Proposal Meeting, submit the following to the Honors Director:
 - Application for Proposal of Undergraduate Research Thesis
 - Recommendation by Primary Thesis Advisor
 - Thesis proposal draft submitted to the committee
 - Establish agreement if the final thesis document will be traditional format or Journal article format.
- Submit original signed Thesis Committee Approval Form to Honors Director immediately following the proposal meeting.
- Proposals with a completed committee meeting prior to review deadlines for University and School scholarship deadlines will be reviewed for competitive funding.
- Secure appropriate institutional approvals for human subjects or animal research.

Important Deadlines

Deadline to propose thesis to be eligible for University Summer Research Scholarship

(February deadlines). Details available at <u>http://undergraduateresearch.osu.edu/awards/summerfellowships</u>

Deadline to propose thesis to be eligible for HRS Research Scholarship: Last day of spring semester classes

Proposal Guidelines

To ensure uniformity of content for Honors Committee review, research proposals must be developed using the thesis proposal. References will be formatted in accordance to the norm in the field but consistently executed throughout the document and the reference list.

1. Problem Statement

- Clearly state the background of the problem to be investigated and its significance in your field.
- Discuss the importance of the topic within the context of etiology of the problem, but also how this topic is situated in a larger picture of the science (eg: mechanism of action vs disease progression)

2. Objectives of the Study

- The objectives, hypotheses, and research questions should be clearly stated and logically related to the problem statement.
- The relationship to an underlying research theory should be shown.
- The objectives should be measurable and testable so that you will know if they have been met.

3. Literature Review

- Review and summarize the prior research around this problem.
- Provide a theoretical basis for the research and its relationship to the problem.
- Demonstrate how this study will extend the body of knowledge in this area.

4. Materials and Methods

- Overview of the Methodology
 - Briefly describe the overall research question and how the design will be used to answer the research question or hypotheses
- Population and Sample
 - Describe the group from which your sample will be drawn and the method for obtaining or recruiting the sample.
 - Estimate the size of your sample.
 - Describe your plan for institutional approval from the ORRP. (Research with human subjects will probably require review by a Human Subjects Review Committee. Please discuss this requirement with your advisor to determine if such a review is necessary. Animal research will require IACUC approval. If IRB/IACUC approval is required, explain when this will occur.)

- If research is in conjunction with another research project, clearly explain your role and responsibilities independent of the rest of the project. Explain whether/how this research can be completed if other parts of the project are stalled.
- Research or Experimental Design
 - o Describe the procedures that will be used to conduct the proposed research.
 - Provide a detailed description of the methods for data collection, intervention (if applicable), data tabulation and preparation.
 - Include a timetable for the data collection.
- Instrumentation and data analysis
 - Describe what procedures or instruments will be used to collect data. Include copies of instruments as appropriate.
 - o Describe the reliability and validity of the instruments used to collect data.
 - Describe the data analysis tests or procedures that will be used to analyze each of the research questions.
- Describe the facilities and other resources that are needed to conduct this research
- Provide written evidence that any other departments or outside agencies will cooperate with the research project.

5. Facilities and/or Resources and Equipment Needed

- Describe the facilities and other resources that are needed to conduct this research.
- Provide written evidence that any other departments or outside agencies will cooperate with the research project.

After the student has successfully defended their thesis proposal, he or she may begin the thesis research process.