



## FOR 485 UNDERGRADUATE RESEARCH PROPOSAL CHECK LIST

### How to begin:

- Think about a topic you are interested in studying. Your project has many possibilities (depending on your interests) and can focus on scientific, management, social, educational, or political issues relating to forestry. If you are having trouble generating ideas, talk to any forestry faculty member to brainstorm possible ideas and approaches.
- Do a literature and internet search to learn what kind of work is already being done in the subject area to obtain a better understanding of your topic of interest.
- Begin meeting with experts in your field of interest to further develop ideas for your project. Experts may be found within the School of Forestry, in other departments throughout NAU or other universities, in governmental agencies (such as the US Forest Service, BLM, NPS, USGS, BIA, US Fish & Wildlife, Arizona Game & Fish, etc.), or in other non-governmental organizations (such as The Grand Canyon Trust, The Flagstaff Arboretum, etc.).
- Once you have developed a solid idea of your interests, make an appointment with the faculty member you think would be most applicable to advise your research interests (not sure who this would be? Contact the Forestry Student Services Coordinator for assistance). During this appointment you should plan to review a synopsis of your ideas to get their response as to whether it's feasible.
- If feedback is positive, your next step is to write and submit a proposal using the guidelines below. Be sure to deliver a copy of your final proposal to the Forestry Student Services Coordinator for the School of Forestry records.

Past theses and proposals are also available online at  
<http://www.eri.nau.edu/joomla/content/view/full/143/154/lang,en/>

### Writing your proposal:

- Your first draft should briefly cover the first eight topics from the list of “Topics to Address in your Proposal” (see below). Submit a draft of your proposal to your faculty advisor via email for their review at least two months prior to your project start date (e.g., March 1st for work in the summer field season).
- Your initial draft will be reviewed by your faculty advisor who will provide written comments. You will then re-submit a final proposal that will address the feedback you received and elaborate on the draft version.
- Once your proposal is approved, check with the Forestry Student Services Coordinator to register for FOR 485 Undergraduate Research for the semester in which you plan to write your senior thesis. In order to register for this course you must provide 1) a final copy of your proposal, and 2) a short course title for your research (30 characters max). This course title will be entered into the NAU LOUIE system making it possible to reflect your research topic on your transcripts.

### Topics to address in your proposal:

1. **Introduction:** What is the research question or project theme? Why is it important? How does it relate to the field of forestry?
2. **Project Hypothesis or Objectives:** Explain your hypothesis and its significance (where appropriate) and/or the specific objectives of your project.
3. **Theory & Method:** How will you find answers to the research question(s)? Discuss the framework that will guide your project. Explain why this framework is appropriate to your inquiry. [Note: Any research involving human subjects requires special approval by the Institutional Review Board. Any research involving animal subjects requires special approval by the Institutional Animal Care and Use Committee. See the Forestry Student Services Coordinator for information on how to apply and obtain this approval. Remember these approvals can take several weeks to obtain; don't wait until the last minute!]
4. **Literature Review:** Give a brief bibliographic overview of the literature that supports your project.
5. **Timeline:** What is your intended timeline for implementing and completing the project? Will it include field work and/or lab work? If so, when, where and who? In what semester will you be registering for the 3 credit course?
6. **Budget:** What is the total cost to complete your project including travel, supplies and equipment? Use the budget template provided. Ideally all equipment and supplies can be borrowed from the School of Forestry. Talk to your faculty advisor and the Forestry Student Services Coordinator for ideas on funding.
7. **Results/ Analysis:** How will you summarize the data and draw conclusions from it?

8. Discussion: How do you interpret the findings? How can this information be applied?

School of Forestry's expectations of you:

- At the completion of your project, you must write and submit a thesis that should cover all eight topics listed above including an abstract (a brief overview of project and findings). Your thesis must be written in an appropriate scientific professional style and sent to your faculty advisor and the Forestry Student Services Coordinator.
- If asked, students are expected to present their project results to the School of Forestry faculty, staff, and students as well as to professional audiences at appropriate scientific conferences when possible.

Guidelines used by the School of Forestry faculty to evaluate your proposal:

- Are the description, purpose, and significance of the proposal well articulated?
- How does it advance scientific knowledge in the field of forestry?
- Are the methods sound?
- Is the budget appropriate?
- Is the timeline realistic for the scope of work?
- Is this project worthy of your time and School of Forestry resources?