

Honors Thesis Guide

College of Agricultural and Life Sciences
Honors Program

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An honors thesis is a written report of a creative, scholarly project dealing with teaching, research, or outreach. It has clear objectives and conclusions, and involves original, independent work of the student.

1. Should I do an Honors Thesis?

Yes, if you:

- Are in the CALS Honors Program
- like to work one-on-one with distinguished faculty on a project catered to your needs
- can devote up to several hours per week on your project
- are self-motivated and can manage your time effectively
- wish to significantly enhance your qualifications for graduate or professional school admission
- have passion and determination to pursue your project
- wish to graduate from UF with *magna* or *summa cum laude* honors

The most important benefits of an undergraduate thesis derive from the close working relationship you can develop with a faculty adviser. Sharing your passion for discovery with a faculty member is a priceless experience that will benefit you for a lifetime. Another more immediate benefit is the outstanding letter of recommendation (for graduate / professional school / jobs) you can expect from a faculty mentor who has gained respect for you as a scholar and devoted learner.

You do not have to be enrolled in the CALS Honors Program to write an Honors thesis. However, the CALS Honors Program makes it easier for you to find and work with an adviser in ANY college at UF, and to understand how to go about developing, conducting, and finishing a thesis project. We are here to support your extraordinary efforts.

What does CALS offer?

- Examples, guidelines, advice, and enthusiastic support in the CALS Honors Program office - McCarty Hall D - Room 2002
- Departmental coordinators to help you find a faculty mentor and conduct a thesis project related to your major
- Information about the University Scholars Program and other opportunities to obtain funding for conducting your work
- Course credit - there is a course entitled "Honors Project" in each CALS Department (XXX 4909) to be used during semesters when thesis work is conducted

Conducting an undergraduate thesis is a serious undertaking, and the role of planning and preparation cannot be understated. Graduate students who conduct research generally take 2 or 3 years to plan, conduct, analyze, and write their theses. They enroll in only 9 credits per semester (instead of 12-15), and many of those credits are research credits, not graded courses. An undergraduate thesis is not nearly as involved or lengthy a process as a graduate thesis, but requires a substantial commitment on your part. Motivation and determination are as important as writing and analytical skills.

2. What is involved in writing an Honors Thesis?

Envision a two- or three-semester process that follows these basic steps:

1. Evaluate your goals against the criteria listed in section 1 (see above)
2. Discuss how to get started with your [Departmental Honors Coordinator](#) and/or the CALS Honors Program Director.
3. Based on the advice of the Departmental Honors Coordinator and/or CALS Honors Program Director, approach a UF faculty member about being your adviser, and discuss potential projects in your area of interest. You may consider talking with several faculty members, in fact.
4. Decide on a faculty adviser and outline a specific project.
5. If technical training is required to prepare you to do the thesis work, consider taking a course, working part-time for the professor, or otherwise acquiring the skill set needed for the project in advance of performing thesis work.
6. By the beginning of your Senior year – at the latest – write a thesis proposal with the help of your adviser AND following the CALS thesis proposal guidelines. Your thesis proposal is due to the CALS Honors Program Director no later than the 5th full week of classes in the semester before graduate.
7. Assemble needed materials and seek funding for your work (if needed). For example, the [University Scholars Program](#) supports about 20 CALS thesis projects annually. Successful proposals are awarded up to \$2500. Contact the CALS Honors Program Director and your faculty mentor for more information on funding.
8. Begin the project. Most students will enroll for 3 credits of the “Thesis Project” course (numbered 4915 in all CALS departments) during the semester they are most actively engaged in research.
9. Analyze your data, write your thesis, and have it approved by your adviser, departmental committee (if any), and the CALS Honors Program Director in the CALS Dean’s office.

The following section of this guide has suggestions for writing the Honors thesis. Please note the deliberate use of the word “suggestions” - each department and faculty member is different, and the final authority on proposing, conducting, and writing your project is your faculty adviser.

3. Honors Thesis Guidelines

Each section of the thesis has specified content and form (see below), and each serves an important function in communicating your ideas and results in a way that is clear and convincing. The following format was developed for biological research studies, but it can be used for social science projects, or those involving teaching methods or community outreach. Always consult your faculty mentor on thesis format specifics – they know what works in their disciplines.

A note on publication: Your thesis may be publishable or contribute to a publication – this is a matter that only you and your faculty adviser can decide. If you received funding from the University Scholars Program or other sources, there are stipulations on publishing, presenting, or submitting a final report to the program; they may not dictate the format described in this guide. If you are publishing your thesis as a journal article, you should format your thesis in accordance with the “Instructions to Authors” of the particular journal. Generally, these are posted on the journal’s web site or included in a volume of the journal – ask your faculty adviser.

For journal articles with multiple authors, see the CALS Honors Program Director to determine how best to present the work that you contributed to the journal article.

In addition to this guide, you are encouraged to consult the following references for writing a thesis:

1. CBE Style Manual Committee. 1994. Scientific style and format: the CBE manual for authors, editors and publishers. Sixth Edition. Cambridge University Press, Cambridge, UK. [CBE = Council of Biology Editors]
2. Booth, W. C., G. G. Colomb, and J. M. Williams. 1995. The craft of research. University of Chicago Press, Chicago, Illinois, USA.
3. Kogan, N. 2002. Conquering your undergraduate thesis. Natavi Guides, New York, NY.
4. Lipson, C. 2005. How to write a BA thesis: a practical guide from your first ideas to your finished paper. University of Chicago Press, Chicago, Illinois.

Suggested format for the Honors THESIS

TITLE PAGE

Choose a simple yet informative title. Include your name and contact info on the title page, as well as your department, your adviser’s name, and CALS Honors Program. For theses submitted to the UF Honors Program for graduation with *magna* or *summa cum laude* Honors, there are two cover sheets to complete: the first one is outlined above and the second is required by UF for the UF Honors Thesis submission. The link to this form is found on the [CALS Honors website](#).

ABSTRACT

As with the proposal, the thesis abstract is simply a brief synopsis of the thesis – 1 paragraph of about 200 words in length. It contains no citations. Being a summary, it is often best to write it *last*. Include a few sentences on each of the main sections of the proposal – Introduction, Materials and Methods, Results, and Discussion. It should culminate with the main take-home message of the thesis.

INTRODUCTION

Use sub-headings to divide this into logically ordered parts!

A good introduction conveys to the reader that you've done your homework and have a good grasp of the topic addressed by the project. It can be written only after distilling the essence of many recent, relevant articles and book chapters on a given topic. At minimum, the introduction:

- introduces your subject area and its importance to the reader.
- justifies your study by showing how it fits into the larger topic area and fills gaps in the current state of knowledge.
- states your objectives and/or hypothesis clearly.

The introduction is generally 1 or 2 pages long, and includes several citations of relevant literature. It proceeds in a logical sequence from general to specific. In other words, the first paragraph or two outline the general background and importance of the topic, the next paragraph(s) get more specific as to what is and is not known about the topic, and the last paragraph(s) culminate with a specific hypothesis or objective that logically follows from the preceding information. After the introduction, the reader should understand 1) the importance and main tenets of the topic area, 2) the specific question your project will address, and 3) why you want to address it. As you read journal articles on your topic, you will begin to see this structure emerge.

MATERIALS AND METHODS

Use sub-headings to divide this into logically ordered parts.

This section should contain the minimum amount of information needed to fully understand how you produced your thesis, such that someone could *duplicate your project* after reading this section. It should convey confidence to the reader that your project was conducted in a way to allow your objective statement to be realized, and that the methods used were appropriate. A good methods section describes exactly how you conducted your study, and gives the reader confidence that you will be able to answer the question posed in the introduction unequivocally. You must describe the study sites, subjects (plants, animals, people), instrumentation, and other resources utilized. Specifics are important as they create confidence in the reader that you've thought things through. How were animals/plants observed, treated, or captured? What questions were asked on your survey form (for human subjects)? What software was used to design the learning exercises for a course, and why did you choose it over other alternatives? Statistical designs and tests used to analyze data are extremely important as well, and often take the form of a separate subheading in the methods section.

RESULTS

This section simply states the facts of what happened; the implications of these facts are reserved for the next section, the discussion. The point is to convey your findings simply and clearly, *referring to tables or figures, photographs, or other items of documentation that support your statements.*

Use subheadings, especially if there were a lot of measurements or analyses. Arrange subheadings in an order that parallels the Materials and Methods section.

DISCUSSION

This section should bring the thesis full circle, linking your results back to the objective put forward in the introduction.... do you accept or reject your hypothesis? Also, it should relate your results to those of other papers on the same subject... do your results agree or disagree with the literature? More specifically, you will try to interrelate individual results to tell a complete story of what happened and why it happened.

As with the introduction, work from general to specific. First, discuss the main findings and their interpretation. Next, discuss the meaning of any secondary (minor) results you obtained, and relate them back to your main results and overall objective. Next, discuss any confounding effects or problems that may have influenced the results obtained or their interpretation [every project has problems]. Sum up with a paragraph that states the take-home message of your project, and how your project fits into the wider context of the topic you introduced at the beginning of your introduction (full circle).

LITERATURE CITED

Cite only the sources directly used in writing the thesis – this section is not a bibliography on the topic.

The following formats for listing sources are common, but styles vary among disciplines. Use the style required by your faculty adviser.

Book chapter: Author(s), year, chapter title, book editors, book title, page numbers of chapter, publisher, city of publisher.

Clarkson, D.T., and A.W. Robards. 1975. The endodermis, its structural development and physiological role. In: [J.G. Torrey and D.T. Clarkson (eds.)] The development and function of roots, pp. 415-436. Academic Press, New York.

Book, specific pages in book: Author(s), year, book title, page numbers used, publisher, city of publisher.

Vaughn, K.C. 1987. CRC Handbook of plant cytochemistry, Vol II: Other cytochemical staining procedures, p. 8. CRC Press, Boca Raton, Fla.

Journal Article: Author(s), year, paper title, journal name, volume number, page numbers.

Peterson, C.A, M.E. Emanuel, and G.B. Humphreys. 1981. Pathway of movement of apoplastic fluorescent dye tracers through the endodermis at the site of secondary root formation in corn (*Zea mays*) and broad bean (*Vicia faba*). Can. J. Bot. 59:618-625.

Website: Author(s), year, title of page, web address (<http://.....>), date accessed. Note the author is not always listed – you may have to try links such as “About us” or “Contact us” to discover who or what organization has published the site.

US Library of Congress. 1990. A Country Study: Uganda [Internet].
<http://lcweb2.loc.gov/frd/cs/ugtoc.html>. Date accessed: Dec 3, 2007.

See the CBE manual for citation styles of other types of references (referenced in next section).

SUPPORTING FIGURES/TABLES

Include any figures, tables, photographs, illustrations, or other documentation that are actually referenced in the methods, results, or discussion sections of the thesis, in the order they are referenced. All should have clear, concise captions that allow the item to convey its basic meaning without the need to go back and read the supporting text.