

## **FNH 499 Thesis Guidelines**

### **General Course Description**

This course provides a means for individual students to undertake customized projects with a supervising faculty member, to develop and strengthen research skills and to accommodate special research interests that cannot be met through other FNH courses. FNH 499 may be taken in lieu of FNH 425 in majors where this course is required. There is no set/synchronous meeting time for this course. Instead, the work plan is arranged and agreed to by the student and the supervising faculty member. Students will be expected to spend approximately 300 hours on this course.

### **Course Registration**

Admission to FNH 499 is arranged through the course coordinator, and must be recommended by the faculty member who will be supervising the work that the student is to undertake. Students interested should contact the individual faculty member(s) with whom they are interested in conducting a thesis with well in advance of the beginning of the academic term. For example, students should approach potential supervisors in summer regarding a thesis starting in September. Opportunities for conducting thesis projects are limited.

**Formal registration into the course requires submission of the registration form to the course coordinator.** If the project to be conducted is associated with a summer or part-time, paid or volunteer position held by the student, care must be taken to ensure that any hours of work on the directed studies project are over and above those required by the related position. The supervisor must be satisfied that this requirement has been met. Normally, a minimum of 50% of the work required for the course must be conducted during the session in which the student is enrolled in the course. Exceptions to this requirement may be requested in advance where its application would result in a course overload, unnecessary delay in time to graduation, or the imposition of extra fees.

### **Course Deliverables**

All of the course deliverables are clearly described below, and must be submitted through the course Canvas site. The Canvas site also includes helpful resources for supervisors and students. Examples of each required submission are provided on Canvas as a guide, but the specific structure and content may vary for different projects. Each submission should be created by the student in consultation with their faculty supervisor. Students must upload all submissions according to the instructions, and by the deadlines posted on Canvas. The required submissions are listed in the table below with typical deadlines.

Item to Submit on Canvas	Due
Copy of the Course Registration Form	Start of the course
Project Timeline	Within 4 weeks of the start of the course
Progress Update*	Mid-point of course
Final Report	End of course

\*The name of a faculty member who will serve as a second evaluator for the written report must be stated in the progress update.

The **project timeline** should clearly summarize the work plan and is arranged and agreed to by the student and the supervising faculty member. It must be set out in writing and is generally no more than two pages. Typically, the work plan includes time spent on literature search, design of experiments, experimental work and generating reports and presentations. A regular schedule of consultations should be pre-arranged between the supervisor and the student in order to monitor and discuss progress and time spent by the student on the project. If the project is to be conducted totally, or in part, at a location other than UBC, the supervising faculty member will make appropriate arrangements for regular monitoring of student progress and project timeline. This may entail appointment of an on-site co-supervisor.

The **progress update** is typically a brief (max two pages) written progress report that is shared with the project supervisor approximately halfway through the term. The document should also include the name of a second evaluator for the written report if the report is worth 40% or more of the final grade. If the written report is worth 39% or less, a second evaluator is encouraged but not required. This document should be viewed as an opportunity to reflect on the work plan and adjust as needed. Typically, it will include a short description of the progress to date, a comparison of progress against the originally proposed timeline, any significant changes in the aim or approach for the project, and the remaining experiments that are expected to be completed.

Students completing an undergraduate thesis MUST present an **oral presentation** to an audience outside of the research group and be **evaluated by 2 or more faculty members**. A day will be scheduled during the exam period for students to present to peers and faculty members; however, alternative venues such as MURC, LFS community meeting, or a conference etc. are also acceptable.

The format for the final report for thesis projects must follow that of a traditional thesis. Please refer to the "Thesis Write-Up Guidelines" section below.

## Thesis Write-Up Guidelines

Each thesis should contain, in the order given, the following sections:

**Title Page:** This page contains the title, author's name, a statement as follows: "A thesis submitted in partial fulfillment of the requirements for the degree of Bachelor of Science in Agriculture in the Department of Food Science", and the date.

**Abstract:** This is a condensation of the contents of the thesis, usually 200 words or less, giving significant information in the report. It serves as a quick reference to determine if the thesis contains information a person is looking for.

**Table of Contents:** This should list all major and subheadings accompanied by the page on which they are found.

**List of Tables:** The table number, caption, and page on which it is found are listed.

**List of Figures:** The figure number, legend, and page on which it is found are listed.

**Acknowledgements:** This section expresses thanks and appreciation to individuals, institutions, or organizations that were particularly helpful in the carrying out of the thesis work. This section is optional.

**Introduction:** The introduction outlines to the reader the thesis subject, its importance, presents the specific problem of the thesis and indicates the nature of the investigation carried out.

**Literature Review:** This section generally outlines or discusses findings reported by others in books and journals, relating to and leading to the proposed investigation as related in the thesis.

**Materials and Methods:** This section should describe the experimental procedures employed and the equipment and facilities used, in a manner which would allow others to duplicate the work.

**Results and Discussion:** This section can be written as a combination of the two or as separate entities. The section relates the information, experimental data or observations resulting from the study, and describes the findings and what they mean are described logically, leading up to a set of conclusions. The format of tables and figures should be as in the Journal of Food Science.

**Conclusion:** This section reports the conclusions reached on the basis of evidence presented in the discussion. This may often be combined with a concise summation of results reported in the previous section.

**References:** This should be an alphabetical listing of authors of literature cited in the thesis. The format to be used for citing in the thesis body and listing at the end should be that of the Journal of Food Science.

**Appendix:** Appendices are repositories for details that must be recorded because they may be needed, but would slow the reader down unnecessarily if placed in the body of the thesis. Appendix materials must be referred to in the body of the thesis. Calculations, detailed analyses, and test figures are typically found in this section.

## Course Evaluation

The precise breakdown of how the student will be evaluated must be agreed upon by the student and faculty supervisor and included in the course registration form. The grade breakdown must follow the requirements in the table below. Examples of evaluation schemes for FNH 499 can be found on the [course wiki page](#). The evaluation scheme must include a final written report (worth 40%-85% of the final grade) and an oral presentation (worth 10% - 55%). Additional assessments such as evaluation of lab work, or the design of a research poster may also be included if desired.

Assessment	Weight
Project Timeline	2.5%
Progress Update	2.5%
Final Written Report*	40% - 85%
Oral Presentation	10% - 55%
Other (optional)	Determined in consultation with supervisor

## Student Responsibilities

- Reach out to potential faculty supervisor(s) who they are interested in working with
- Complete the course registration form in consultation with faculty member supervisor and submit to course coordinator
- Allocate appropriate time to the course (based on the number of credits)
- Complete course requirements by the designated due dates (submit via Canvas)

## Supervisor Responsibilities

- Select an appropriate research project in conjunction with the student
- Discuss the project objectives, assessment methods and rubrics, and grade breakdown with the student prior to the student completing their course registration form
- Provide suitable laboratory supplies and equipment to perform the work
- Review the student's project timeline and mid-course progress update
- Provide guidance on experimental design, data analysis, and presentation of results
- Schedule regular meetings with the student (e.g. weekly or biweekly)
- Provide feedback on the student's draft of their final report in a timely manner
- Assess student work and provide feedback

## **Course Coordinator Responsibilities**

- Make sure all required information is correctly included in the course registration form
- Submit approved forms to LFS Student Services to enrol students
- Monitor Canvas course to ensure students have fully submitted the required activities
- Coordinate final presentations during the exam period
- Submit students' final grades to LFS Student Services

## **Frequently asked questions (FAQ)**

*How does FNH 497 differ from a thesis (FNH 499)?*

A thesis requires that a student spend 6 credit hours conducting research, write a formal thesis, and deliver an oral presentation of the project findings. FNH 497 also includes a written report but the structure is more flexible, and a presentation may or may not be required in addition to other possible deliverables. Note that FNH 497 cannot substitute for FNH 425 for students required to complete FNH 425 or FNH 499 in order to graduate.

*How do I enroll in FNH 499?*

- First, contact the faculty member you would like to work with, to see if they have the capacity to supervise you as an undergraduate thesis student in the term(s) in which you would like to complete FNH 499
- If a faculty member agrees to supervise you, develop a plan for an appropriate thesis project through discussion with them
- Fill out the course registration form in consultation with your faculty supervisor and submit it to the course coordinator
- The course coordinator will then send your course registration form to LFS Student Services who will enroll you in the course.
- After being enrolled in the course you will have access to the Canvas course where you will submit your required course activities

*Can FNH 499 be conducted in 1 term?*

Yes, you can complete an undergraduate thesis in one term but be prepared to dedicate twice as much time to your project. It is important to consider the nature of your project and whether 3-months is enough time to collect/analyze the data.

*Can I begin FNH 499 in Winter Term 2 and finish in Summer Term 1?*

Unfortunately, you cannot begin an undergraduate thesis that starts in Winter Term 2 and finishes in Summer Term 1.

**APPENDIX**

**FNH 499 Directed Studies Registration Form**

<b>Student Name:</b>	
<b>UBC Student #:</b>	
<b>Term(s):</b>	
<b>Credit Level:</b>	
<b>Start Date:</b> (if other than the start of term)	
<b>End Date:</b> (if other than the end of term)	
<b>Project Site:</b>	
<b>Site Supervisor:</b> (if applicable)	
<b>Faculty Supervisor:</b>	

<b>Approvals</b>	<b>Electronic Signature</b>	<b>Date</b>
<b>Student</b>		
<b>Faculty Supervisor</b>		
<b>Site Supervisor (if applicable)</b>		
<b>Course Coordinator</b>		

***Project description and grade breakdown must be provided on the following page***

## Project Description and Evaluation

Please fill in each of the sections below. Example project descriptions, evaluation schemes, and grading rubrics can be found on the [course Wiki page](#).

### Project description including objectives

### Student roles and learning outcomes

### Evaluation Scheme (review requirements in the FNH 499 guidelines)

### Grading rubrics for each assessment method: