

**FISH 499 SENIOR THESIS
FALL, SPRING, AND SUMMER SEMESTER 2021-22**

Instructor/Office Hours

Faculty/TBA

Meeting Location and Time

N/A

Course Credits

2 credits (for letter grade)

Contact Hours

Time spent with the faculty mentor in individual instruction will vary depending on the student's progress on the thesis proposal; however, at least 80 hours of supervised scholarly activity must occur during the semester to complete a senior thesis proposal.

Course Prerequisites

Fisheries major with senior standing and a GPA of 3.2 or higher. Permission of a CFOS faculty mentor and the CFOS Internship Coordinator (the coordinator may also be a mentor). FISH 498. boT [(ex)-14(e

The entire senior thesis process will improve the ability of students to find employment and additional educational opportunity after their CFOS B.S. or B.A. degrees have been completed. Employers and prospective graduate schools value research experience because it demonstrates the ability of a student to successfully complete a large-scale project that requires analytical, critical thinking, and oral and written communication skills. Undergraduate students frequently develop close and long-term professional relationships with their research mentors, and the example that mentors provide can be a lasting inspiration for students to become life-long learners in their field of choice. Specific student learning objectives associated with this course include the following:

- a. Develop an understanding of how to critically analyze data and integrate results within the context of the existing scientific literature;
- b. Present scientific research effectively in written, visual, and oral formats;
- c. Sharpen critical thinking, written communication, data collection, and analysis skills.

Support/ Disabilities Services

If students need accommodation because of a disability, please contact the faculty mentor and CFOS internship coordinator as soon as possible to make the necessary arrangements with the Office of Disabilities Services (203 WHIT, 474-7043).

Instructional Methods

Students will learn from individual instruction from their faculty senior thesis mentor. In general, this course will require a significant degree of self-directed study.

Reading Assignments

There is no required text for this course; however, students will be required to conduct an extensive literature survey to develop their senior thesis proposal.

Course Calendar

The senior thesis experience is completed over two semesters. The first course in the sequence, FISH 498 Senior Thesis Proposal, must be completed successfully before students will be allowed to enroll for the second course (this course) in the sequence, FISH 499 Senior Thesis Project. The scheduling and timeline should be agreed upon between the student and faculty mentor within the first month of the semester the student is enrolled in the first course in the sequence (FISH 498). Below is an example of a general timeline that can be used as a template for a more detailed, specific timeline to be revised by the student and his/her senior thesis mentor for FISH 499.

- Month 1: Completion of data analysis and summary of results;
- Month 2: Completion of the interpretation of study results;
- Month 3: Completion of the written senior thesis, including project title, abstract, introduction, methods, results, discussion, and literature cited;
- Month 4: Oral or Poster presentation of research at an UAF undergraduate research symposium or a student subunit, state, or national AFS meeting; submission of the written manuscript to a scientific journal for peer review.

Course Assignments

1. Written Senior Thesis: Theses can vary between 15 to 100 pages in length, and can take the form of one or more research manuscripts. A basic thesis outline is provided below:

Introduction

Background/justification

Study objectives

Expectations/hypotheses

Methods

Study site description

Data collection methods

Data analyses

Results

Clear results/figures and tables of data

Discussion/Conclusions

Summary of results and interpretation

Implications within the context of the literature

Literature Cited

All literature cited completely, minimal use of web resources, peer-reviewed literature (journal articles)

2. Presentation: Students enrolled for senior thesis are required to present their study results at the CFOS Undergraduate Internship Symposium. In addition, students enrolled for senior thesis credits are also encouraged to give a presentation at the UAF Research Day which will take place in April 2018 and/or at a student subunit, state, or national AFS meeting.

Grading

For senior thesis, failure to turn in any of the required assignments is grounds for a failing grade. Because the senior thesis is based on the individual experience, a grading curve does not apply. Assignments are as follows (details for each assignment are listed above): timeline, pre-proposal, proposal, and data collection and analysis.

Letter Grade Breakdown: (1) Faculty Evaluation of Timeline Completion 5%; (2) Senior Thesis 80% (breakdown as follows: abstract 10%, introduction 15%, methods 15%, results 20%, discussion 25%, literature cited 10%); and (3) Oral or Poster Presentation 15%. All letter grades will be based on an absolute 90-80-70-60 scale (e.g., 90% = A, and so on).

Course Policies

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1. Late Assignments: All assignments are due to the faculty mentor by the dates indicated on the senior thesis timeline.

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