

Animal Science Senior Project Course Requirements

R 10-26-07

I. General Information and Overview

- A. There are three courses involved in completing the Senior Project Requirement in the Animal Science Department: ASCI 461, ASCI 462, and ASCI 463. These courses must be taken in consecutive order, i.e., ASCI 462 is a prerequisite for ASCI 463 and ASCI 461 is a prerequisite for ASCI 462. These courses can NOT be taken concurrently during the same quarter.
- B. ASCI 461 is a one-unit, on-line BlackBoard Senior Project Planning course.
 - 1. ASCI 461 serves as the first step to help students get started on their senior project by selecting a senior project and a senior project faculty advisor.
- C. ASCI 462 (Senior Project) is the second course in the Senior Project series. In ASCI 462 the student actually completes the senior project and submits the final report or project to the faculty senior project advisor for a letter grade.
 - 1. Students enrolling in ASCI 462 will need to do so under the supervision of a Cal Poly Animal Science faculty member. Your Senior Project faculty advisor will give you the schedule code number to register for ASCI 462 after completion of ASCI 461.
- D. ASCI 463 (Senior Seminar): students will present the results of their completed senior project in the form of a poster and (or) oral presentation to the class and faculty guests.

II. ASCI 461, Senior Project Planning (1 unit; graded CR/NC).

- A. Primary Objectives of the ASCI 461 Course:
 - 1. Inform students of the four different options available to satisfy the Senior Project Requirement & have students select one of these options for their senior project.
 - 2. Students will select a senior project faculty advisor after obtaining their consent.
 - 3. Students will meet with their senior project faculty advisors to plan the scope & details of their senior project.
 - 4. Students will submit a written Senior Project Proposal & Outline, **signed by the faculty advisor**, detailing the scope of the project, resources required (physical & monetary), & the timeline for completion of the project to the ASCI 461 instructor by the deadline listed in the syllabus.

B. Senior Project Options

1. Students have four primary options to choose from as far as types of projects that can be selected to fulfill the requirements for Senior Project. These four main options are listed below. A fifth category is used for senior projects that do not fit into one of the four main categories.

- (1). Research Projects
- (2). Comprehensive Literature Review
- (3). On-Campus Enterprise Management Internship
- (4). On- or Off-Campus Internships (not all internships are appropriate for Senior Project credit)
- (5). Other projects

C. More Detailed Description of the Senior Project Options:

1. Research Projects

- a. These senior projects require the most supervision from the faculty advisor. This option is frequently selected by students planning to attend veterinary or graduate school as a method of preparing themselves for the research and rigor they will encounter.
- b. If you conduct a research trial for a senior project, your senior project advisor will likely require that the senior project report be written in a scientific journal format. You may also be asked to put your report into a formal manuscript style for submission to a scientific journal for potential publication, or to make an oral or poster presentation at a scientific meeting. Talk to your senior project advisor for more details.
- c. Talk to a Cal Poly faculty member in your area of interest to see if they have a research project idea. Funding may be available to support research projects.
- d. A research project can be very challenging and sometimes difficult. Potential senior project advisors may have only a limited number of these projects available; thus, contact a potential advisor early.

2. Comprehensive Literature Review

- a. This type of project involves an extensive review of the scientific literature on a topic agreed upon by the student and their senior project advisor.
- b. An example of a previous sr. project of this type was a review of the scientific literature on the efficacy of glucosamine & chondroitin sulfate dietary supplements in treating joint problems in animals.
- c. This type of sr. project has several distinct advantages over other types of senior projects:
 - (1). It requires no physical resources other than the Cal Poly Library & a computer.

- (2). The pace in completing the project is entirely within the control of the student, which can be a huge advantage for students busy with other classes, work, etc. Other types of sr. projects, research trials for example, may incur delays beyond the control of the student.

3. On-Campus Enterprise Management Internship

- a. For those students with goals of pursuing careers in animal production management, these types of senior projects offer the chance to gain valuable experience in managing and evaluating the performance of an animal enterprise at Cal Poly. This type of project involves working closely with a Cal Poly faculty member in the animal area of interest.
- b. This internship must be approved by a Cal Poly faculty member acting as the student's senior project advisor **PRIOR TO STARTING THE ENTERPRISE INTERNSHIP**. In order for an enterprise internship to be suitable as a Senior Project it must involve extensive management experience, including (but not limited to) budgeting, purchasing, sales, marketing, and especially management of other students on the enterprise, etc. Students can not use an enterprise they have already completed as a senior project, retroactively. Students selecting this option **MUST** also complete an internship application and register for internship (ASCI 339) units under the department's Internship Coordinator (currently Dr. Steve Daugherty). Internship applications are available from Dr. Daugherty.

4. Appropriate Internships On or Off Campus

- a. The animal science department encourages students to gain experience outside the university in the various fields of animal science. These internships must be pre-planned with a Cal Poly faculty member to ensure a valuable experience for the student, and to ensure that the internship, or some aspect of the internship, is suitable for use as a senior project. **Internships that simply involve a "work study" type of experience, i.e., simple work experience, are not suitable for senior project credit.** There must be a learning experience component of the internship that is beyond simply gaining work experience.
- b. This type of senior project is a good option if your intended graduation date is far enough in the future to accomplish it.
- c. Students selecting this option **MUST** select a **senior project faculty advisor** and have the project approved by the sr. project advisor **PRIOR** to enrolling in ASCI 339 (Internship) in order to use the internship as a senior project to get credit for ASCI 462.
- d. An example of this type of project would be a student doing an internship at a large commercial cattle feedlot. The sr. project advisor may require the student to write a paper for ASCI 462 on the effectiveness of the feedlot's vaccination program in decreasing morbidity of common diseases of feedlot cattle, for example.
- e. Another example of this type of project would be a student doing an internship at a zoo or wild animal park where the student was involved in a research project conducted by the

host institution. With the host institution's approval, the student may be allowed to use the data collected for their Senior Project Report at Cal Poly.

- f. An on-campus internship must have some aspect to it that makes it suitable for use as a senior project (see item 4.d above for one example).
- g. The student would have to collect the appropriate data during their internship and obtain approval from the appropriate person(s) at the host institution in order to do the senior project and write the senior project report. This requires planning in advance of doing the internship and close coordination with the senior project faculty advisor.
- h. For this reason, students are not allowed to do an internship, and then retroactively decide they want to use the internship for their sr. project.
- i. All students enrolling in ASCI 339 (Internship), whether using it as a senior project or not, **MUST** complete the Internship Application Packet and have the internship **PRE-APPROVED** by the ASCI Department's Internship Coordinator (Dr. Steve Daugherty) **PRIOR** to going on the internship.

5. "Other" Miscellaneous Types of Senior Projects

- a. Other types of projects, in addition to the four types discussed previously, may qualify as suitable sr. projects.
- b. Students having an idea for a sr. project other than the four options previously discussed should discuss the idea with a faculty member to determine the project's feasibility and suitability.
- c. **All** Sr. Projects **MUST** be **PRE-APPROVED** by a faculty member that has consented to serve as the student's Sr. Project advisor.
- d. Examples of projects that fit in this category that have been done in the past are:
 - (1). A teaching aid for ASCI 420 (Animal Nutrition) on CD-ROM for vitamins & minerals. The CD-ROM included photographs & descriptions illustrating the deficiency & toxicity signs for all the vitamins & minerals.
 - (2). A resource manual for 4-H leaders of livestock projects including such topics as feeding management & nutrition, health care, performance evaluation, fitting & showing, etc.
 - (3). An animal skeleton mounted on a stand with each bone labeled.

III. ASCI 462, Senior Project (2 units, regular grading)

A. Primary Objectives of ASCI 462:

1. Students complete the project selected in ASCI 461 working with their senior project faculty advisor. At least 90 hours of work is expected for the three units of credit (i.e., 30 hours per unit) obtained in the two senior project courses (ASCI 461 and ASCI 462).
 2. Students submit the final senior project written report or project to their senior project advisor for grading by the deadline set by the faculty advisor. The format, length, etc. of the report is determined by the senior project faculty advisor.
 3. Any faculty member can serve as a senior project advisor as long as you have had a formal meeting with them to discuss your project goals, timeline for completing the project, and they agree to serve as your Senior Project advisor for ASCI 462. Faculty outside of the Animal Science Dept. may also serve as a student's senior project advisor with the **consent and approval of both the student's academic advisor in the Animal Science Department and the prospective senior project advisor from a different department.** In this case the student would register for the senior project course(s) in the department outside of the Animal Science Dept. To obtain credit for ASCI 462 the student would have to submit a Substitution Form to the Academic Records office to substitute the senior project course taken outside the ASCI Dept. for ASCI 462.
- B. Note: students are encouraged not to enroll in ASCI 462 until they are reasonably sure that they can submit the final report or project to the faculty advisor by the deadline. Once a student registers for ASCI 462 the "clock is ticking" for the student to finish the project and turn in the final report. A student that receives an "I" grade (i.e., Incomplete, Authorized) or an RP grade (Report in Progress) in ASCI 462 because they did not finish their senior project and turn in the final report have only one year to complete the project and turn in the final report for a grade or the "I" or RP grade automatically turns into an "F" grade. The student's senior project faculty advisor may set a final deadline for completion of the project and submission of the final report/project for a time period LESS than one year from the date of enrollment in ASCI 462 as part of the senior project requirements in order to receive a passing grade in ASCI 462. Students receiving an F or U (Unauthorized Incomplete) grade must re-register for ASCI 462.

If a student has been away from the university for several years, the university can force a student to meet the graduation requirements of the catalog in effect at the time when the student actually completes all their degree requirements. Thus, a student that has been away from the university for several years and has not completed all their degree requirements (ASCI 462 and ASCI 463 for example) could find themselves having to return to campus to take more courses than just ASCI 462 and ASCI 463 if there has been a significant change in the curriculum during their absence.

C. Senior Project Outline/Contract

1. The senior project faculty advisor will likely require a written outline of the proposed project detailing the resources required, timeline for completion of the project, the deadline for turning in the final report or project, and other relevant factors. This document then serves as a "contract" between the student and the faculty advisor for the senior project. Students may receive a lower grade (or possibly a failing grade) in ASCI 462 for failing to meet the deadlines set by the instructor in the "contract." With the

senior project faculty advisor's consent, the Senior Project Outline submitted for ASCI 461 can fulfill the requirement for the senior project outline/contract.

IV. ASCI 463, Senior Seminar (2 units, regular grading)

A. Presentation of Senior Project Work in ASCI 463, Senior Seminar.

1. After completing the ASCI 461 course, completing the senior project work, and enrolling in ASCI 462 and receiving a passing grade in ASCI 462, students will present their senior project work in ASCI 463 (Senior Seminar).
2. Senior project presentations in ASCI 463 will be in the form of a written poster and may also include an oral presentation.
3. Students are **NOT** allowed to enroll in **Senior Seminar (ASCI 463)** until they have received a passing grade in ASCI 462 (Senior Project).
4. Thus, students should plan ahead to complete ASCI 461 and ASCI 462 in order to enroll in ASCI 463 by their planned graduation date.
5. Failure to plan may result in a delay in meeting graduation requirements.