

TARLETON STATE UNIVERSITY

DEPARTMENT OF ANIMAL SCIENCES

GRADUATE CREDIT FOR UNDERGRADUATE COURSES

To receive graduate credit for an undergraduate course in the Department of Animal Sciences, students must meet the following requirements:

- Get the approval of their committee chair and the course instructor prior to enrolling in the course.
- Enroll in the appropriate graduate problems course as directed by the faculty member teaching the undergraduate course.
- Complete a departmental review paper in addition to the requirements of the course, using the following criteria:

Guidelines for Graduate Student Review Papers

Graduate students taking undergraduate classes for credit are generally required to write a review article on a topic assigned by the instructor. Review articles written in the *Journal of Animal Science Style and Form* should conform to the following guidelines:

GENERAL:

1. Papers should be written in the past tense. All information presented comes from research that has already been completed.
2. The purpose of the paper is to utilize documented research to support a conclusion. The author has not personally conducted the research. He/she is only using the information to justify his/her conclusions.

SECTIONS:

1. **ABSTRACT.** Every paper begins with an abstract. This section represents a summary of the entire paper. It is brief and to the point. It generally consists of a single paragraph and is limited to no more than three main conclusions. It may contain literature references, but these should be conclusive rather than informative. The abstract should end with a clear, concise statement of the author's conclusion.
2. **KEY WORDS.** At the end of the abstract, up to six (6) key words that best describe the nature of the review should be listed. Key word should include the species and the physiological aspect of the research.
3. **INTRODUCTION.** The introduction should be a clear, concise explanation of the hypothesis being examined. Relevant literature should be included in a conclusive

manner; one sentence per citation, and no more than three references should be cited. The introduction ends with a statement of hypothesis.

4. **REVIEW OF LITERATURE.** A review article requires that the author replace the customary *Materials and Methods* section with a *Review of Literature*. The author has not conducted any research and has no research technique of his/her own to report. This section should be organized by concepts rather than references. Information on the procedures of the specific references should only be included if it provides necessary information regarding the hypothesis. The purpose of this paper is to provide supporting information; however, it is also important to present at least one conflicting or alternative conclusion, if possible.

5. **DISCUSSION.** The discussion section is where the author interprets the information obtained from the literature. Specific information from the cited papers should be included in this section and is most often presented in a combined tabular or graphic format. Concepts are presented, with documented information, which support the author's hypothesis. Detailed explanations and interpretations of all pertinent scientific evidence is presented using correct scientific terminology. The author's conclusions are the main focus of this section.

6. **CONCLUSIONS.** The conclusion section is a clear, concise presentation of the author's hypothesis in lay terms. Speculation is permitted. Application of the hypothesis to practical animal husbandry should be stressed. The need for future investigation may also be presented. Specific citations are generally not included in this section.

A copy of the *Journal of Animal Science Style and Form* is available at <http://jas.fass.org/cgi/data/84/1/DC1/1>. This provides the acceptable format for citations, literature listings, abbreviations, tables, figures, scientific terminology, and numeric terms. This is the specified format for all technical papers in the Department of Animal Sciences. It must be used unless the instructor provides you with an alternative format.

Deadline for submission of the paper is two weeks before the last class day of the semester enrolled.

The review paper must be approved as acceptable by two Animal Sciences faculty members chosen anonymously by the Department Head.

The same review paper cannot be used for more than one course. All papers will be kept on file in the office of the Department of Animal Sciences.

With an approved review paper, the student will receive the grade earned in the class. If the paper is not approved, the student cannot receive a grade higher than D.

PROBLEMS COURSES

With the approval of their graduate committee, students may register for Problems credit (ANSC 586). Following are the guidelines for Problems Courses:

Students can register for problems courses by permit only. The specific requirements for the course must be approved by an instructor in the Animal Sciences Department and by the Department Head prior to registration. The student should present a written proposal to the instructor. The proposal should include:

- The subject of the course
- The educational objectives of the course
- Specific requirements
- The amount of time expected to satisfy the requirements of the course. (The minimum time effort should be equivalent to the expected time spent in an organized course with the same number of credit hours)
- The total number of credit hours from problems courses and approved undergraduate courses must not exceed 12.

The instructor will specify how the problems course will be graded.

DEPARTMENTAL REQUIREMENTS

In the support area, the Animal Sciences Departmental requirements include Statistics, Biochemistry, and a research design course. Statistics and Biochemistry can be taken at the undergraduate level or can, with approval, be taken for graduate credit. Research design must be a 500 level course. The recommended course is AGRI 560.