#### **POLICY ON GRADUATE STUDY**

## I. Organization of the Graduate Advisory Board (GAB):

#### A. Charge:

- The GAB will monitor incoming applications for graduate study, will provide opportunity for evaluation of applicants by the Department faculty, and will present recommendations to the faculty for acceptance into the Department and for the awarding of teaching assistantships.
- 2. The GAB will follow the progress of each graduate student to assure normal advancement in course work and the selection of a research project. Each graduate student will have a faculty advisor in the Department from the onset of enrollment. This advisor will be chosen through mutual consent and interest between the faculty member and the student.
- 3. The GAB, after consultation with the student and with the research sponsor (if any), will assess the student's promise as a scientist. This assessment shall be made at the earliest possible date after the student first enrolls but not later than the fourth full semester of study for Ph.D. students and second semester for M.S. The GAB's assessment shall be the basis for setting program stipulations or restrictions, or both, for each student. In particular, the GAB shall recommend termination without an advanced degree, terminal M.S., M.S. and Ph.D., or direct study for the Ph.D. Adjustments in recommendations shall be possible after reconsideration and further action by the GAB.
- 4. The GAB will distribute any special funds available for graduate student research and travel (e.g., Scott-Walters travel fund).
- 5. The GAB will provide the continuing function of review and evaluation of the Department's graduate program and shall recommend guidelines and policies for adoption by the faculty.

## B. Composition:

1. The GAB shall consist of three faculty members appointed to a threeyear term by the Department Head; terms shall be staggered, with one member being appointed each year. The Head shall have the authority to reappoint the same member for an additional term after serving a partial or full term. In addition, a fourth member of the committee shall be a Ph.D. student from the Department, who is to be appointed by the Head in consultation with the graduate students for an academic year or a semester-long term, at the discretion of the Head. The student representative shall be a voting member of GAB. The Head shall serve <u>ex-officio</u> and shall vote only to break tie votes.

#### C. Powers:

1. The decisions of the GAB on student cases shall be final, except that any decision may be appealed to the Zoology Faculty. Persons wishing to appeal a decision should contact the Department Head.

# II. Graduate Student Policy

# A. Admission to Graduate School in the Department of Zoology and Physiology:

- To be considered for graduate standing in the Department, the applicant must first identify a potential faculty advisor. After a potential faculty advisor has been identified, the applicant should follow the steps outlined on the Department of Zoology and Physiology
  - website: <a href="https://www.uwyo.edu/zoology/students/grad\_degrees/">https://www.uwyo.edu/zoology/students/grad\_degrees/</a>. The Department requires an undergraduate grade point average of 3.00 on an A = 4.00 basis. No GRE is required.
- 2. Students with a bachelor's degree may be admitted as Master's or doctoral students depending upon the career interests of the student and the judgment of the faculty advisor.
- 3. Applicants for financial assistance who wish to begin in the fall semester should have their application completed, including letters of recommendation, by January 15. Applicants who wish to start in the spring semester should have their application completed by September 15.
- 4. Admission will be based on the quality of the student's application materials, the availability of space and funding, (see II, A, 4), and a faculty advisor willing to support the applicant's research.

- 5. Applicants to our graduate program who do not meet the minimum requirements for admission will be subject to the following conditions:
  - a. Applicants who fail to meet both the GPA and GRE minima will not be admitted to our graduate program
  - b. Before being admitted to the program, applicants who meet the GRE but not the GPA minimum must have a GPA ≥3.4 in their last two undergraduate years, or else have taken at least three upper-level graduate courses beyond the Bachelor's degree in which they received a grade of B or better, with no intervening courses in which they received a grade less than B. Courses fulfilling this requirement must be approved by GAB as being (or having been) of acceptable rigor and disciplinary relevance. These courses taken before admittance can be applied toward course requirements after admittance.
  - c. Before being admitted to the program, applicants who do not meet the GRE minimum must have a cumulative GPA ≥ 3.3, or a GPA in their last two undergraduate years ≥3.4. Otherwise, two courses meeting the conditions in item b will be required.
- 6. Students will not be admitted to the Department's graduate program without funding sufficient for the duration of their program (2 years for M.S., 4 years for a Ph.D.). Sufficient funding (teaching assistantship, research assistantship, grants, scholarships fellowships, private funds) is defined as an amount equal to or greater than the current Department Teaching Assistantship stipend.

## **B.** Graduate Assistantships:

- Graduate Assistants (GAs) (including both teaching assistantships
  (TAs) and research assistantships (RAs) will be appointed from those
  students accepted by the Department. The GAB will make
  recommendations to the Department Head for appointment based on
  all materials and testimony available for each student.
- 2. Teaching assistantships will be awarded to faculty, including academic professionals and adjunct faculty in the following priority order: a. tenure-track and Co-op Unit faculty with their primary appointment in this department. b. academic professional research

scientists with their primary appointment in this department, c. tenure-track faculty with their secondary appointment in this department, d. adjunct faculty with appointments in this department. Criteria used to allocate teaching assistantships will include maintaining equitability among faculty in the number of students supported by a teaching assistantship, providing support for untenured faculty to build their research program, and having teaching assistants with the expertise to cover specialized course offerings.

- 3. Preference will be given to students in good standing who have been previously appointed to a teaching position in the Department. Students should have good ratings by their supervisor and students. Preference will also be given to students who have been previously supported by extramural programs, provided they are in good standing and the termination of their extramural support was no fault of their own. The student's performance as a teacher will be evaluated at frequent intervals and, if inadequate, the student, after consultation with the GAB, may be placed on probation the following semester. If the student's performance is judged unsatisfactory during the probationary semester, the TA will be terminated.
- 4. Teaching Assistantships are typically awarded for the academic year. All graduate students must respond to a questionnaire sent by the Department during the first half of the Spring semester to be considered for a Teaching Assistantship during the following academic year.
- 5. "One-semester" Teaching Assistantships awarded to meet
  Department teaching needs for one semester will not be
  automatically carried over into the next semester. Students awarded
  "one-semester" Teaching Assistantships for the Fall semester must
  petition the GAB to be considered for a Spring Teaching Assistantship.
- 6. Students pursuing the M.S. degree shall be limited to four semesters of TA support. Students pursuing the Ph.D. degree shall be limited to eight semesters. Any extension of these limits must be approved by GAB. Students entering a Ph.D. program via a Master's bypass or after completing a M.S. will be viewed as a new student for purposes of TA allocation.

- 7. Whenever possible, teaching assignments will be given to each teaching assistant well in advance of the start of the new semester. The advanced notice of teaching assignments will allow adequate time for preparation and should lead to more responsible teaching.
- 8. Students resigning a TA must notify GAB at least 60 days before the beginning of the fall or spring semester. If notice is not given, acceptance of a resignation will be dependent upon the availability of a qualified replacement.
- 9. Graduate assistants shall be paid a nine-month stipend that is at least the amount specified by the University of Wyoming. Additional amounts may be paid at the discretion of granting agencies, university programs, or principal investigators for research grants. Summer augmentations may be paid to qualified Ph.D. students; these funds should be expended following consultation between students and their advisors.

# C. Departmental Seminar Attendance:

 Graduate students are expected to attend Departmental seminars. To encourage graduate student attendance at seminars, questions for the preliminary exam and the final defense may cover material presented at Departmental seminars.

## D. The Non-degree Graduate Student:

- 1. The University maintains a non-degree graduate status for students admitted to the graduate school after meeting University requirements for admission, and who may take courses for graduate credit, but not earn a graduate degree. These students are administered and advised by the University of Wyoming. Since non-degree graduate students are not admitted to the Department of Zoology and Physiology, they are not assigned a Department faculty advisor, and are not permitted to receive financial assistance for graduate study from private, university or government funds administered by the Department.
- 2. To advance to degree candidacy, a non-degree graduate student must meet all University and Department requirements for admission to the M.S. or Ph.D. degree programs in the Department of Zoology and Physiology. Acceptance of a non-degree student is not automatic.

Criteria listed in Section II.A.3 apply. It is recommended that the applicant include a written statement by a member of the Department faculty indicating intent to direct research and/or writing.

# E. M.S. Requirements:

 University Graduate Student Requirements. See the University of Wyoming's Graduate Student Regulations and Policies website for both Plan A and Plan B requirements (<a href="https://www.uwyo.edu/uwgrad">https://www.uwyo.edu/uwgrad</a>).

## 2. Departmental Requirements:

- a. Students entering the M.S. program in the Department without an undergraduate biology background should expect to take biology courses during their tenure in the Department. The GAB will confer with the student's proposed major advisor before formal admission of the student to identify remedial courses or testing needed. Such provisions will be identified by the GAB in any letter to the Department Head recommending admission of the student.
- b. Of the 26 credit hours of non-thesis coursework required by the University of Wyoming, the advisory committee is encouraged to require at least 18 credit hours in structured coursework, including graduate seminars, but not including unstructured coursework, [e.g. Research in Ecology (ZOOL 5750), Research in Physiology (ZOOL 5600), Research in Vertebrate Fauna and Game Management (ZOOL 5820) and Practicum in College Teaching (ZOOL 5900)].
- c. The Plan A Thesis Program. The M.S. candidate's advisory committee will consist of a minimum of three members, two from the Departmental faculty (including the faculty advisor) and an outside member. Committee membership will be approved by the Department Head. This committee should meet and advise the candidate's course and research program by the end of the second semester at the University. The advisory committee may give earlier written examinations, but normally only one examination (oral) is given to the M.S. Plan A candidate at the end of the program. The oral examination, administered as part of the requirements for the M.S. degree, is

principally a defense of the thesis. If no written examination is required, however, this examination may test the candidate's competence in areas other than the special area of thesis research. The oral examination will be conducted by the advisory committee and will be open to the public. The examination shall be advertised publicly for a period of at least one week in advance of the scheduled date. The thesis must be received by each member of the student's advisory committee three weeks before the final examination.

d. The Plan B Non-Thesis Program. The program for the Plan B - M.S. degree is established by the student and their graduate committee according to directions in the University of Wyoming's Graduate Student Regulations and Policies. This program must be approved by the Department Head during the student's second semester or summer session at the University. There is no thesis in the Plan B program. The Plan B papers written for this degree are graded by the University faculty under University course numbers.

The final examination is comprehensive, covering all areas of Zoology and Physiology, but emphasizing one major area. This is not a defense of the papers written for the degree.

- e. <u>Seminars</u>. Sometime during their degree program, all M.S. candidates will be required to complete credit in two different graduate seminars, regardless of whether one or both of these seminars are taken for >1 credit. A student may enroll in more than one of these required seminars during one semester or academic year.
- f. The proposed Program of Study should be approved by the committee before the end of the second semester.

## F. Ph.D. Requirements:

 University Graduate Student Requirements. See the University of Wyoming's Graduate Education website (https://www.uwyo.edu/uwgrad). The University requires an undergraduate grade point average of 3.00 on an A = 4.00 basis. Additional requirements include:

- Seventy-two (72) hours of course work including 42 hours of a. formal coursework at the 4000 level or above from this or other accredited university graduate programs. Of the 42 credit hours of formal (non-dissertation) coursework, at least 18 credit hours should be in structured coursework, including graduate seminars, but not including unstructured coursework, [e.g. Research in Ecology (ZOOL 5750), Research in Physiology (ZOOL 5600), Research in Vertebrate Fauna (ZOOL 5820) and Practicum in College Teaching (ZOOL 5900)]. The remaining 24 credit hours of non-dissertation coursework could consist of any combination of structured coursework, graduate seminars, and unstructured coursework (Research in Ecology (ZOOL 5750), Research in Physiology (ZOOL 5600), Research in Vertebrate Fauna (ZOOL 5820) and Practicum in College Teaching (ZOOL 5900)]
- b. An advisory committee approved by the Department Head will consist of a minimum of five members. At least three but not all can be from the Zoology and Physiology Department. One member must be from another department outside Zoology and on the Graduate Faculty.
- c. A preliminary examination.

## 2. Departmental Requirements

Students meeting University and Department minimum requirements may be accepted into a Ph.D. program with an undergraduate or graduate degree or through the master's bypass option (see Section II,G,2 p.12).

Doctoral students in the Department of Zoology and Physiology will be required to complete a research proposal and pass a preliminary exam prior to the defense of their dissertation. Assessment of a student's performance will remain the responsibility of the student's graduate committee. Students who do not perform satisfactorily in regards to the research proposal and preliminary exam may be dropped from the graduate program upon the recommendation of the student's graduate committee and the Department Head.

## a. Research Proposal

<u>Purpose</u> -- To allow the student's advisory committee to assess the originality, feasibility, and rigor of the dissertation research project.

<u>Format</u> -- The student will prepare a written proposal that will be submitted for review by the student's advisory committee. The proposal should contain the following elements:

<u>Introduction</u> -- A review of previous work that sets the stage for the proposed research.

<u>Hypotheses or research objectives</u> -- A summary of the hypotheses or research objectives to be addressed in the dissertation.

<u>Methods</u> -- A description of the techniques or methods that will be used to address the hypotheses or research objectives. If appropriate, a description of statistical analyses should be included.

Results -- Anticipated results or results of preliminary experiments.

<u>Time schedule</u> -- In general, it is recommended that the student present the research proposal during the second or third semester of his or her doctoral studies. However, defense of the research proposal may be completed any time before the oral defense or it may be included in the oral defense portion of the preliminary exam.

#### b. Preliminary exam

<u>Purpose</u> -- To test the student's knowledge in their area of research expertise and in supporting areas of science.

<u>Format</u> -- The preliminary exam will consist of both a written and oral portion. Prior to the preliminary exam, the student's advisory committee may recommend a reading list.

<u>Written portion</u> -- The written portion will be assembled by the student's advisory committee. Questions will be solicited from each member of the committee. The committee then will review the exam in its entirety prior to administrating it to ensure that the exam is comprehensive and integrative. A copy of the exam will be filed with the Graduate Advisory Board. The student should be expected to spend 16-32 hours writing answers to the questions.

<u>Oral portion</u> -- The oral portion should be administered within a two-week period following the written portion and will involve questioning by the student's advisory committee. Topics may include follow-up questions from the written portion of the preliminary exam, questions regarding the student's research proposal, questions involving general knowledge, or discussion of material from a previously-assigned reading list.

<u>Time schedule</u> -- Students should take the preliminary exam in their fourth semester of graduate study, after completing most of their graduate coursework.

## c. Defense of Dissertation

<u>Purpose</u> -- To evaluate the originality, quality, and rigor of the dissertation research.

<u>Format</u> -- Doctoral students must write a dissertation following guidelines of the University of Wyoming. The dissertation should be given to the advisory committee three weeks prior to the dissertation defense. The student will present a seminar to the faculty and students of the Department of Zoology and Physiology that details the major findings and significance of his or her doctoral research. After the research seminar, the student's advisory committee will convene to further evaluate the dissertation research through an oral exam.

<u>Time schedule</u> -- Students defend their dissertation after they have met all requirements outlined in the Graduate Student Regulations and Policies of the University of Wyoming. Students also must have presented their research proposal and passed the preliminary exam described above.

- d. Sometime during their degree program, all Ph.D. candidates will be required to complete credit in three different graduate seminars, regardless of whether one or more of these seminars are taken for >1 credit. A student may enroll in more than one of these required seminars during one semester or academic year.
- e. It is the responsibility of the student's advisory committee to ensure appropriate breadth of coursework and knowledge of the discipline, as assessed by the preliminary examination. The committee is encouraged to require coursework in the subdisciplines of genetics, ecology, physiology, and cell or developmental biology. No formal certification of a "tool" as designated by some departments will be required by the Department of Zoology and Physiology.
- f. It is strongly recommended that each Ph.D. candidate complete course work in a minor area. A minor could be satisfied by two or more courses with grades of B or better in another department.
- g. A student must teach a laboratory or field course at least one semester while at the University of Wyoming in the Ph.D. program.
- h. <u>Dissertation form</u>. (See also form and style requirements described in the Graduate Student Regulations and Policies

website). The dissertation may be written in a format suitable for publication in a journal and the usual extensive literature review, description of study sites, technical details, raw data, supporting figures, charts and photographs should be included in well-organized prefix or appendix sections. Because few doctoral studies would be accepted by journals in entirety, the natural divisions in the dissertation content should be prepared as individual papers, which may be in a format for the same or different journals.

The proposed Program of Study should be approved by the committee before the end of the second semester.

## G. Change of Graduate Status:

- A graduate student admitted as a Master's student who later wishes to bypass the Master's degree and enter a doctoral degree program must submit a formal request to GAB for approval. Criteria and procedures for such a request are as follows:
  - a. The student must meet the GPA and GRE requirements for admission to the doctoral program. The GPA will be based on both the student's undergraduate record and their performance in graduate courses taken to date.
  - The student's major professor must submit a statement detailing progress by the student in their graduate program.
     The major professor must justify and endorse the Master's bypass for the student.
  - c. The student must prepare a written statement explaining in detail why bypassing the M.S. is desirable from the perspective of the student's scientific career.
  - d. Members of the student's graduate committee must indicate their support for the Master's bypass.
  - e. All above materials must be submitted to the Graduate Advisory Board, which will decide whether the Master's bypass is justified and desirable for the reasons given by the student and major professor. Such nominations will be approved only in exceptional circumstances.

- 2. Doctoral students who wish to change to a Master's program must submit a formal request to GAB for approval. This includes students originally admitted as doctoral students in the Program in Ecology, the Neuroscience Program or the Department of Zoology and Physiology. Criteria and procedures for such a request are as follows:
  - a. The student's major professor must submit a statement detailing progress by the student in their graduate program.
     The major professor must justify and endorse the switch to a Master's degree program and indicate if the student will pursue a Plan A Thesis or a Plan B Non-Thesis Master's degree.
  - b. The student must prepare a written statement explaining why switching to a Master's degree program is desirable from the perspective of the student's scientific career.
  - c. Members of the student's graduate committee must indicate their support for the switch to a Master's degree program.
  - d. All above materials must be submitted to the Graduate Advisory Board, which will decide if the switch to a Master's degree program is justified and desirable for the reasons given by the student and major professor. If approval is granted, the student must then complete the requirements for a Plan A or Plan B Non-Thesis Master of Science degree.

## H. Termination of students from the graduate program.

1. Students who do not perform satisfactorily may be dropped from the graduate program upon the recommendation of the faculty advisor, the student's graduate committee and the Department Head.