# Animal and Rangeland Sciences Graduate Student Handbook



Department of Animal and Rangeland Sciences
Oregon State University
2018-2019

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Welcome to the Department of Animal and Rangeland Sciences at Oregon State University. We are pleased to have you involved with our departmental graduate studies. Graduate education is a major part of our departmental responsibilities. To this end, the department makes available research opportunities ranging from applied ecology and management of rangelands to laboratory animals to beef cattle to exotics, like llamas, and from basic research at the systems and molecular level to the management or applied level. Our faculty has received national and international recognition for their research contributions.

This "Graduate Handbook" is intended to outline the requirements specific to the Master's and Ph.D. degrees in Animal and Rangeland Sciences. Some of the information in this document may be found on the department website (<a href="https://anrs.oregonstate.edu/">https://anrs.oregonstate.edu/</a>). Further detail can be found in the on-line "Graduate Catalog" (<a href="http://oregonstate.edu/dept/gradcat/">http://oregonstate.edu/dept/gradcat/</a>). Some information that is applicable to all University Graduate programs may be found only in the "Graduate Catalog" and is not repeated here. The on-line "Guide to Success" (<a href="http://oregonstate.edu/dept/grad-school/docs/student-success-guide.pdf">http://oregonstate.edu/dept/grad-school/docs/student-success-guide.pdf</a>) is a resource from the Graduate School to aid students in complying with University requirements and deadlines.

We are pleased to have you with us. Let the department know if there are areas of this handbook which could be changed to make it more useful.

# **Degree Programs Offered**

Graduate students can pursue three degree types: a Master of Science (M.S.), a Master of Science Non-thesis, or a Doctor of Philosophy (Ph.D.). The graduate degree will either be in Animal Sciences or in Rangeland Ecology and Management. *The M.S. Non-Thesis is not yet available*.

Within the Animal Sciences emphasis area, students can study:

- Animal genetics
- Reproductive physiology
- Embryo physiology
- Animal nutrition
- Growth and development

- Endocrinology
- Nutritional biochemistry
- Animal behavior
- Livestock management
- Dairy production

Within the Rangeland Ecology and Management emphasis area, students can study:

- Ecology of rangelands
- Fire Ecology
- Invasive Species
- Physiological ecology
- Range nutrition

- Restoration Ecology
- Riparian zone management
- Watershed management
- Wildlife Habitat

Alternatively, students interested in a multidisciplinary Master's degree may choose the Master of Science Non-Thesis (M.S. – non-thesis) program. This program is a non-thesis degree in which the student specializes in three areas of course work and is considered to be a terminal degree (does not lead to a Ph.D. program).

# **Graduate Student Learning Outcomes**

Outcomes for graduate students in Animal Sciences include and Rangeland Ecology and Management

- Communicate current situation/problem and how own research will address the situation/problem.
- State clearly the objective, hypothesis and methodology
- Analyze, organize, interpret, and summarize data and peer-reviewed literature, compare and contrast own and peer-reviewed results, and integrate own data into peer-reviewed literature.
- Communicate novelty, creativity and potential impact of own research within area of study.

# **Important Forms from the Graduate School**

OSU Graduate School Proposed Doctoral Program form:

https://gradschool.oregonstate.edu/sites/gradschool.oregonstate.edu/files/sfm doctoral 6.20.2017.pdf

OSU Graduate School Proposed Master's Program form:

https://gradschool.oregonstate.edu/sites/gradschool.oregonstate.edu/files/general masters 06.20.20171.pdf

Continuous Enrollment Information:

https://gradschool.oregonstate.edu/progress/deadlines

Acceptable Use of University Computing Resources:

https://gradschool.oregonstate.edu/graduate-student-success/graduate-student-resources

Graduate students should obtain or review the following publications or resources:

Animal and Rangeland Sciences "Graduate Handbook" http://anrs.oregonstate.edu/content/graduate-students-3

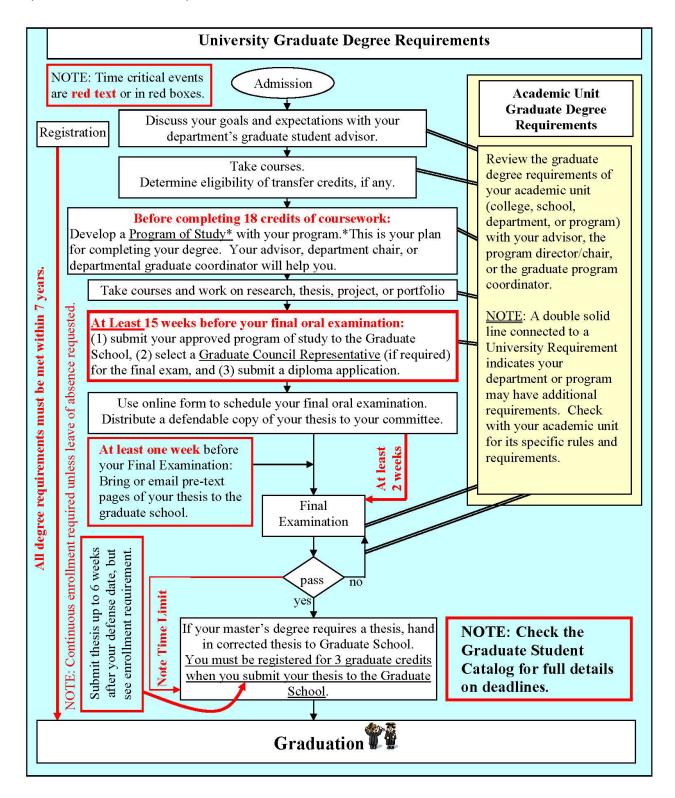
VERY IMPORTANT TO USE: The Graduate School "Guide to Success" https://gradschool.ore.gonstate.edu/graduate-student-success

The Oregon State University Graduate Catalog. This is found ONLY on the web at: https://gradschool.oregonstate.edu/graduate-student-success/courses-offered-graduate-school

Students: Please note that it is your responsibility to adhere to the requirements and deadlines of the OSU Graduate School and the Graduate Program of the Department of Animal and Rangeland Sciences.

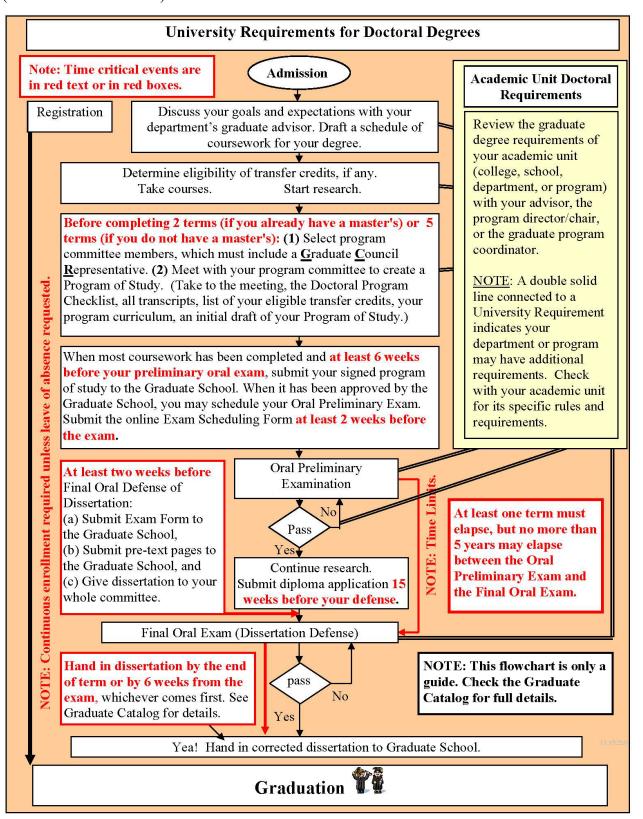
# Flow Chart for Successful Completion of Master's Degree

(From OSU Grad School)



# Flow Chart for Successful Completion of Ph.D. Degree

(From OSU Grad School)



# **Graduate Student Policies**

### **Departmental Graduate Committee**

Faculty members of the graduate committee are appointed at the discretion of the Department Head.

#### **Graduate Committee Functions**

- 1. Screens applicants for admission to graduate programs in the department.
- 2. Recommends to the graduate students, graduate faculty and Department Head changes in department graduate programs and policies. Suggestions to the committee from students and faculty are encouraged.

### The Department Head's Role

The Department Head ensures that departmental standards are upheld during all phases of graduate education and to review and update all department graduate literature.

#### Specific duties include:

- 1. Review graduate student programs.
- 2. Review research proposals of all M.S. and Ph.D. students.
- 3. Participate in oral preliminary and final examinations.
- 4. Review progress of graduate students who are in academic difficulties.
- 5. Conducts orientation for new graduate students.
- 6. Review entrance standards and admission of graduate students with Graduate Committee.
- 7. Review graduate student annual reports and annual performance reviews.

### Student's Program Committee and Program of Study

All graduate students are required to file a program of study with the Graduate School. The program of study comprises a list of courses which the student proposes to take in the major and minor areas of study and constitutes the course work basis for the advanced degree. The program of study is formulated by the student, the major professor, and the student's Program Committee. Forms are available at the Graduate School's web site. The Program Committee is made up as follows:

#### M.S. committee: total committee of four (minimum):

Major Professor

Second member from Department of Animal and Rangeland Sciences

One member in minor field (our department requires a minor)

Graduate Council Representative (final examination only)

M.S. non-thesis committee: minimum of three graduate faculty members, at least one from each field identified in the program of study. Assistantships are unavailable for the M.S. non-thesis area. (Not available at this time)

#### **Ph.D. committee**: total committee of five (minimum)

Major Professor

Second member from Department of Animal and Rangeland Sciences

One member from each declared minor (up to two minors may be selected)

#### Graduate Council representative

Members of the Program Committee are selected by the student and their major professor, subject to review and approval by the Department Head. Non-Animal Science OSU faculty can receive adjunct appointments in our department, qualifying them as a Major Professor or a second member of your major. Professors with courtesy appointments in the Department of Animal and Rangeland Sciences may serve as a second member in the major field.

In addition to guiding the student in formulation of the most appropriate program of study, the Program Committee serves as the examining committee for preliminary and final exams, guides and assists the student as necessary in planning, conducting, and interpreting thesis research, and must approve the thesis for granting of a graduate degree. Students should carefully choose their program committees with these roles in mind.

Program Committees must be assembled and the program of study prepared for filing with the Graduate School by the following deadlines:

M.S. Students: program of study must be filed at least 15 weeks before the final oral examination.

**Ph.D. Students**: program of study must be filed at least 6 weeks before the preliminary oral examination.

The study program approved by the Program Committee must be signed by the major professor, the minor professor (animal sciences requires a minor), and the Department Head (for M.S. programs) and by all the committee members and the Department Head (for Ph.D. programs) before filing in the Graduate School. Changes in the program may be made by submitting a petition for change form to the Graduate School.

Meetings of the Program Committee, required for Ph.D. candidates and strongly encouraged for M.S. candidates, should be called to formulate the study program, review research proposals, and review research progress, as well as to conduct the examinations. Notification of Study Program Committee meeting times needs to be made to the Department Head.

Master of Science Non-Thesis: The Master of Science non-thesis student will not be held responsible for Department of Animal and Rangeland Sciences requirements beyond those stated in the Graduate School Catalog. However, if a major emphasis is selected in either Animal Sciences or Rangeland Ecology and Management, an appropriate number of courses will be determined by the student's major professor, graduate committee, and Department Head. [Please note that the Department of Animal and Rangeland Sciences will not be accepting students into this area at this time.}

# **Admission Process for Graduate Students**

All policies and regulations of the Graduate School govern acceptance or rejection of graduate applicants. See the current policies at http://gradschool.oregonstate.edu/admissions.

Step 1: After receiving a complete application and supporting documents, the packet is circulated to the Graduate Committee for review. A complete application packet includes:

- A 4-year baccalaureate degree or equivalent with GPA of 3.0 or higher on last 90 quarter credit or 60 semester credit hours
- Application to OSU Graduate School that includes a statement of purpose
- GRE scores, at least 40<sup>th</sup> percentile average
- Three letters of recommendation
- TOEFL or IELTS scores for international applicants (unless from Australia, Belize, Canada, New Zealand, Scotland, West Indies, the United Kingdom, or some African countries on a case-by-case basis; students with a degree from a U.S. institution of higher education are not required to take these tests)
- Certificate of Finances Form for international applicants

Step 2: Reviews from the Graduate Committee are received by the Graduate Program Coordinator and are forwarded to the Chair of the Graduate Program for a summary review. Criteria for review include:

- Previous academic achievement
- Courses in areas preparatory to a degree in either Animal Sciences or Rangeland Ecology and Management
- Strength of letters of recommendation
- Indication of goal as put forth in the statement of purpose
- Availability of a major professor

Step 3: The summary review and complete packet are forwarded to the Department Head for a final decision. The Graduate Program Coordinator submits this final decision to the OSU Graduate School (who then notifies the applicant of the decision).

Note: If no faculty is willing to serve as a major professor, then the application will be rejected. If several faculty members are willing to serve as a major professor, then the Department Head will determine who will be the major professor or co-major professors as appropriate.

This admission process takes between six to eight weeks to complete. Students will hear from the OSU Graduate School (not directly from the Department of Animal and Rangeland Sciences) whether they have been accepted to study in the Department of Animal and Rangeland Sciences.

# **Graduate Research Assistantships**

A limited number of state-supported Graduate Research Assistantships (GRAs) are available to qualified candidates. Qualifications are based upon academic proficiency, appropriateness of background training, and interest for research in specific areas of department involvement. The stipend varies with the Full Time Equivalent (FTE) (.30 to .49) assigned to GRAs. Tuition is waived {covered on whether your appointment is through a P.I. or department...talk to your major professor} but the student is responsible for fees each quarter of registration.

GRAs are responsible for 12 to 19.5 hours of work per week (for the Department of Animal and Rangeland Sciences) under the direction of their major professor, dependent upon the FTE of their assistantship. All statefunded GRAs in our department have a .30 FTE (12 hours per week) service component in their position description. Students receiving a 0.49 FTE stipend from a GRA, scholarship, or combination of the two are expected to be working full time toward their degree (classes, research, or both). Therefore, such students are prohibited from having any other employment during the calendar year, including summers. Failure to adhere to this policy may be grounds for termination of the stipend. Although your FTE and the number of hours you are expected to work may fluctuate slightly, you cannot work more than 255 hours per term in all jobs within the Oregon University System when appointed as a graduate student. The HRIS system tracks the number of hours for which a particular student receives pay each month; for 0.49 FTE the total must be limited to less than 84.93 hours per month. Some faculty expect their students to take classes or to be engaged in research full time while others expect their students to be engaged full time in classes and research simultaneously. Students receiving less than a 0.49 FTE stipend should consult with their advisors before seeking outside employment. Although exceptions can be made, the department's policy limits assistantship support to two years for M.S. students and three years for Ph.D. students after the M.S. In order for a GRA to be extended beyond two years for the M.S. and three years for the Ph.D., regardless of funding source, the graduate student must have at least one manuscript submitted to a journal.

The Department Head and Graduate Committee will be monitoring the GPAs of all graduate students. Failure to maintain an overall graduate GPA of 3.00 or above for two consecutive terms will result in revoking the student's GRA until satisfactory progress is achieved.

Graduate Assistantships are exempt from tuition charges (students receive a tuition fee remission to their student account for the amount of the tuition charged), but students are still required to pay the mandatory university fees for each term.

As a condition of their employment, GRAs are required to participate in the mandatory employee health insurance plan. GRAs can read more about coverage, cost, and download forms online at http://studenthealth.oregonstate.edu/insurance.

# **Degree Requirements**

### **Minimum Credit Requirement**

Effective fall 2005, all graduate student programs of study submitted to the Graduate School must consist of, at a minimum, 50% graduate stand-alone courses.

M.S.: 45 credit hours including thesis credits.

30 credit hours in major

15 credit hours in minor (minor required by department)

(Check with department of minor -- some departments may require more credits!)

M.S - non-thesis (not yet available): 45 credit hours (must include project credits) are required in at least three or more agricultural or agriculturally related fields with no more than 21 hours in any one field, unless the program exceeds 45 credits. Each field must contain a minimum of 9 credits. Assistantships are unavailable for the M.S. Non-Thesis.

Ph.D.: no established policy, but a program must include at least 108 hours (M.S. and Ph.D.) to be recognized by the Graduate School. A minor must consist of at least 18 credit hours (15 credit hours for an integrated minor).

#### **Course Load**

The maximum credit load for a full-time graduate student is 16 hours; Graduate Research Assistants with FTEs of .20 to .49, because of their other duties, are limited to 12 hours per term. The minimum load for full-time student status is 9 hours for all graduate students; however, the minimum load requirement for students on assistantship is 12 credit hours.

# **Continuous Enrollment Policy**

Unless on approved Leave of Absence, all graduate students in graduate degree and certificate programs must register continuously for a minimum of 3 graduate credits until their degree or certificate is granted or until their status as a credential-seeking graduate student is terminated. This includes students who are taking only preliminary comprehensive or final examinations or presenting terminal projects. Students must register for a minimum of 3 credits and pay fees if they will be using university resources (e.g. facilities, equipment, computing, and library services, or faculty or staff time) during any given term, regardless of the student's location. If degree requirements are completed between terms, the student must have been registered during the preceding term.

#### Blanket-Numbered Courses<sup>1</sup>

"Blanket-numbered courses have a zero middle digit. Those that carry graduate credit may be repeated up to the maximum totals indicated below.

- **Research** (501 or 601) is for research that is not part of the thesis. Data obtained from such research should not be incorporated into the thesis.
- Thesis (503 or 603) covers the thesis research and writing. A student may register for thesis credit each term.
- Reading and Conference (505 or 605) and Projects (506 or 606) are used for special work not given under a formal course number.
- **Seminar** (507 or 607) is used both for departmental seminars and for special group work not given in a formal course.
- Workshop (508 or 608) is usually a special, short-term course covering a variety of topics.
- **Practicum** (509) is used for courses whose emphasis is the application of academic theory to the work environment.

No more than 9 credits of blanket-numbered courses, other than thesis (or research-in-lieu-of-thesis for nonthesis programs), may be applied toward the minimum 45-credit master's degree. While internship credit (510) is not considered a blanket-numbered course, no more than 6 credits of internship may be applied toward a 45-credit master's degree. The internship credit limit is in addition to the 9-credit blanket-hour limit.

No more than 15 blanket-numbered credits may be applied toward the minimum 108-credit doctoral program.

Blanket-numbered transfer courses will count toward the maximum totals specified above.

### Graduate Student Seminar, Research Review, Workshop, and Special Topics

#### Animal and Rangeland Sciences Course Requirements

- 1) ANS 505/605 Research Review (offered each Fall once a week for 1 hour). Master's students would be required to enroll in (and pass) this course 1 time prior to graduation. PhD students would be required to enroll in (and pass) this course 2 times prior to graduation. The purpose of the second enrollment will be to serve as peer mentors to new students entering the program and to provide personal experiences and answer questions related to weekly topics.
- 2) ANS 507/607 Seminar or Committee-Approved Equivalent: symposium. Faculty will be responsible for ensuring that their graduate students attend seminar presentations and practice creating and giving research, stakeholder, and outreach talks appropriate to their discipline. Master's students would be required to enroll in (and pass) this course 1 time prior to graduation. PhD students would be required to enroll in (and pass) this course 2 times prior to graduation.

<sup>&</sup>lt;sup>1</sup> Taken from the online General Catalog & Schedule of Classes Policies Governing All Graduate Programs.

#### **Committee Approved Course Requirements:**

1) Other requirements are up to the Graduate Committee and the Major Professor and will differ among students.

ANS 599 Special Topics: The expectation is that faculty will have their students enroll in special topics ANS 599 courses or develop their own special topics ANS 599 course to serve as journal club: For example;

- ANS 599: Current Topics in Animal Nutrition (1 credit; letter grade). All animal nutrition students stationed in Corvallis are required to enroll for 1 credit in fall, winter and spring terms. Each term, students will present a journal article from the last five years and critically evaluate it.
- ANS 599: Current Topics in Animal Reproduction (1 credit; letter grade). Reproduction students are required to enroll for 1 credit in fall, winter, and spring terms. Students or the professor will select a journal article from the last two years for a critical evaluation of the hypotheses, methods, results, and impact.
- ANS 599: Current Topics in Theriogenology (1 credit; letter grade). Students working in pre-eclampsia are required to enroll for 1 credit in fall, winter, and spring terms. Each term, students will present a journal article from the last five years and critically evaluate it.
- ANS 599: Current Topics in Animal Behavior (1 credit; letter grade). Students working in pre-eclampsia are required to enroll for 1 credit in fall, winter, and spring terms. Each term, students will present a journal article from the last five years and critically evaluate it.

Seminar, workshop, and journal club attendance is highly recommended for all students residing in Corvallis. An attendance log will be maintained.

Students residing in Eastern Oregon or Newport, e.g., students working with Drs. Bohnert, Endress, Morris and Mueller are not required to enroll in or attend ANS 505/605, ANS 507/607, ANS 508, ANS 509, or ANS 599 in Withycombe Hall unless they are in Corvallis at the time. Similar to Withycombe Hall-based students, these courses would not be required to appear on the student's graduate program, except for ANS 507/607 and the new ANS 509 Teaching Practicum for Ph.D. students. The program of study requirements for ANS 507 and 607 have not changed: M.S. and Ph.D. students still need a minimum 2 and 3 credits of ANS 507 and 607, respectively, on their graduate programs.

Please see Appendix VII for the Proficiency Requirements for Completion of Graduate Work in Rangeland Ecology and Management for more information.

# **Teaching Assignments**

The nature of employment opportunities available to many graduates makes some teaching experience highly desirable, if not necessary. Therefore, graduate students in the Ph.D. program are required to enroll for at least one teaching credit (ANS 509 Teaching Practicum, 1 credit; letter grade) during their program. Students may assist in a class of their choice, in agreement with their advisor and the teacher of that course, subject to approval of the Department Head. Students in the master's program are exempted from the teaching credit requirement; however, their participation in classroom teaching is encouraged. The major professor may require greater teaching involvement; hence, the student may be required to register for additional teaching credits. All Animal and Rangeland Ecology and Management graduate students on at least .20 FTE of state funding are required to

assist in teaching every quarter they are in Corvallis except Summer Term. M.S. students are also encouraged to enroll in ANS 509.

### **Training in Research Ethics**

In 2011, the OSU Faculty Senate approved overarching Graduate Learning Outcomes for all of campus. One of these was an assessment of a student's ability "to conduct scholarly or professional activities in an ethical manner." In May 2012, the Graduate School directed departments to require ethical research training in all programs of study. The Graduate School described several venues for students to satisfy this requirement including: enrolling in a course on the responsible conduct of research (RCR), completing an online RCR module, enrolling in a relevant course in the student's major, instruction in a research group, and direct mentoring by the major professor. The specific courses suggested to meet this requirement is the Graduate School's GRAD 520, Responsible Conduct of Research.

### Research Proposal

All M.S. and Ph.D. thesis research is to be preceded by formulation of a written research proposal. This should be developed with the student's Program Committee and their comments solicited in order to develop the most appropriate approach to the thesis research problem no later than the end of second term of attendance. The student is also well advised to consult with a statistician at this stage to ensure that the proposed research can be analyzed properly and that it will answer the questions you seek. It is to the student's advantage to prepare a Research Proposal early in their residence. Students failing to submit a thesis proposal by the appropriate deadline (end of third term - M.S.; end of fourth term - Ph.D.) will not be allowed to register and GRAs will be cancelled.

As stated earlier, degree candidates and their advisors are strongly encouraged to arrange for meetings of their committees to review the research proposal and research progress. At best, it is disheartening to arrive at the final examination and discover that, in the committee's opinion, the research is insufficient, improperly conducted, or improperly analyzed and is therefore unacceptable.

# Preliminary Examination - (Ph.D. degree only)

The purpose of the preliminary examination is to determine whether the student has acquired adequate background training to conduct his or her chosen area of research.

All students are required to perform adequately on both written and oral preliminary exams for the Ph.D. degree.

#### Written Preliminary Examination:

- 1. Written preliminary examinations must be successfully completed before the student is eligible to schedule oral preliminary examination. Preliminary examinations should be scheduled when approximately 80% of the course work is completed. Preliminary examinations should be scheduled well in advance of the final examination (the minimum is one term between the time of the preliminary and the final exam); the examining committee may require additional courses if they determine that you are weak in certain areas.
- 2. Preparation, conduct and evaluation of written examinations will be the responsibility of the student's Major Professor according to one of the following options:

- a. The student will complete a separate written examination for each graduate committee member. Each committee member will evaluate his or her own portion of the examination.
- b. Each committee member will submit questions, and the major professor will then assemble an examination from the available questions. Evaluation may be joint or delegated to individual committee members.
- 3. The Major Professor may solicit questions from faculty not on the student's committee.
- 4. The type of questions and the number of questions of the written examination will be determined by the student's Major Professor. The written examination may be open book, closed book, or a combination of the two. This is determined by each individual committee member.
- 5. A time limit for the written examinations will be set by the Major Professor or individual committee members as appropriate. This will vary considerably, depending on the examiners.
- 6. Student performance is assessed by each committee member who will make a decision as to whether the student has passed or failed that committee member's portion of the written examination. One negative vote is permitted in deciding whether the student has passed the written examination. If the student fails (> 1 negative vote), the student may only retake the exam one more time. The Program Committee will decide what portions of the exam need to be retaken this may constitute the whole exam, or only those portions that the student failed the first time. The time interval between retaking those questions will be determined by the student's Program Committee. In any case, the student is encouraged to visit with each committee member to discuss their performance in that member's question(s) to determine areas in which further study is needed prior to the Oral Preliminary Examination.

#### **Oral Preliminary Examination:**

The oral preliminary examination should be scheduled a minimum of two weeks after the student has demonstrated satisfactory performance on their written preliminary exam. An Event Scheduling Form must be filed with the Graduate School at least one week before the oral prelim exam. The oral examination is given by the Program Committee (including the Department Head and the Graduate Council representative) and normally takes 2-3 hours. Students will be examined over all relevant areas of knowledge, particularly any in which they showed weakness on their written preliminary examination. The major professor shall regulate the time utilized by members of the examining committee, and the Graduate Council representative shall conduct the committee's evaluation of the candidate's performance. Pass or failure on the oral preliminary examination is usually by committee consensus. If there is not a general consensus, a pass on the oral examination shall consist of no more than one negative vote from the examining committee.

# Final Examinations - All graduate degrees

All graduate students in the Department of Animal and Rangeland Sciences must undergo a final examination by their Program Committee prior to receipt of their degree. This is synonymous with the so-called "defense of thesis" and usually consists of (but is not limited to) a presentation by the student of their thesis research project followed by an in-depth oral examination and discussion of the work by the Program Committee, including the Department Head or designate. For Master of Agriculture candidates, the final examination will cover relevant course work and their research paper.

Before the thesis or dissertation defense can be scheduled, graduate students (M.S. or Ph.D.) must have at least one manuscript submitted to a journal.

Once a date for the final examination is established, the student and major professor are responsible for publicizing the oral presentation, which is open to all students and faculty who wish to attend. Please see the Graduate Program Coordinator for a sample of the required announcement format.

- 1. In addition to the regulations printed in the Graduate School bulletin, the candidate shall clear the examination date with the Program Committee and Department Head not less than two weeks prior to the schedule date. Schedule (day, time, location) is the responsibility of the candidate. It is desirable that the seminar portion of your defense be scheduled for either room Withycombe 201 or 217, and the defense portion scheduled in Withycombe 201.
- 2. Because the Program Committee will in most instances recommend some changes in the thesis, the candidate may submit a draft thesis to the Program Committee and Department Head rather than a thesis in final form (library copy). The Graduate Council policy is that such a draft is to be a final draft, meaning the thesis must contain all sections, figures, tables, bibliography, table of contents, and page numbers on the table of contents and in text, abstract, and approval sheet. It is to be in a fully readable form, essentially ready for final typing. The committee may choose not to accept the draft as a basis for the final examination if these criteria are not adhered to.
- 3. An Event Scheduling Form must be submitted to the Graduate School office at least one week prior to the examination for a Master's degree or two weeks prior to the examination for a Ph.D. degree. At this time you are also required to submit the pretext pages of your thesis to the Graduate School. Pretext pages include a flyleaf (a blank page), the abstract, copyright (optional, but recommended), title page, approval page, acknowledgement page, contribution of authors, table of contents, list of figures, tables, appendices, dedication (optional), and preface (optional).
- 4. A copy of the thesis must be given to the Program Committee and to the Department Head at least one week prior to the examination for a Master's degree and at least two weeks prior to the examination of a Ph.D. degree. It is suggested that a draft of the thesis be submitted to committee members for their perusal well in advance of the Final Examination.
- 5. The examining committee consists of the student's program committee, any additional members recommended by the major professor, and the Department Head.
- 6. The candidate will be asked to present his or her thesis in not more than 30 minutes. This should be carefully organized to give priority to interpretation of research results. Discussion by the candidate of literature review and experimental methodology should be minimized (both of which are described in the thesis). Graduate students and faculty are invited to attend this portion of the final examination.
- 7. The remaining time shall be used by the examining committee to question the candidate on the accuracy of the work, its significance, and the candidate's scientific knowledge.
- 8. The major professor shall regulate the time utilized by members of the examining committee, and the Graduate Council representative shall conduct the committee's evaluation of the candidate's performance.
- 9. If more than one negative vote is recorded by the examining committee, the candidate will have failed the examination. No more than one re-examination is permitted.

# Remote Participation Policy for Required Graduate Student **Meetings and Examinations**

It is generally expected that all members of graduate committees should be physically present at all required graduate committee meetings (i.e., program meetings, preliminary examinations, and final examinations). However, it is permissible for the student, and/or committee members to participate from a remote location provided all conditions listed on the "Remote Participation Form" (see page 22) are met and the student submits that form to the Graduate School (with appropriate signatures) one week prior to the meeting. Appeals for exceptions to this policy may be addressed to the Dean of the Graduate School. Contact the Graduate School for complete details.

The conditions on the remote participation form are:

- Advance agreement of all student and all committee members, has been obtained;
- All participants join in with two way audio and video connections; audio-only connections are approved by the major professor if the video connection is not possible. When the student is the remote participant, their connection must be an audio/video connection:
- Any visual aids or other materials have been distributed in advance to the remote participants;
- The committee members participate in the complete meeting, discussion, presentation, and evaluation;
- The major professor accepts responsibility for the oversight of any logistical arrangements necessary; and
- Any costs associated with the remote participation are not the responsibility of the Graduate School, and must be arranged in advance.

# **Protocol for Using Department Facilities for Research**

A Research Protocol Form must be submitted by the principal investigator to the Unit Supervisor(s) of the livestock unit(s) to be utilized. Following evaluation of the project by the Unit Supervisor(s) for budget and facility priorities, the Research Protocol Form is referred to the Department Head for final approval.

An Animal Care and Use Form must also be filed with the OSU Institutional Animal Care and Use Committee (IACUC) prior to any activities, research, or instruction involving animals.

Go to the Office of Sponsored Programs and Research Compliance website to obtain the latest version of the Animal Exposure Occupational Health and Safety for OSU employees form. https://occupationalhealth.oregonstate.edu/sites/studenthealth.oregonstate.edu/files/occhealth/docs/initial animal exposure questionnaire sept2015.pdf

FASS training is provided to most Animal and Rangeland Ecology and Management personnel through the Department of Animal and Rangeland Sciences. Contact the Office Manager to schedule your training. Training requires viewing two 15-minute videos on the Guide to the Care and Use of Agricultural Animals and taking a short quiz in the Department of Animal and Rangeland Sciences. When training is completed, the Office Manager of Animal Sciences will send documentation to the IACUC Administrator that the requirement has been fulfilled.

# **University Property**

Students doing research sponsored by grants, assistantships and departmental projects should understand that the data they collect are the property of the Department of Animal and Rangeland Sciences. Data collected separately or jointly by graduate students and faculty should be filed as records of the supporting grant. Data collected without financial support of the university are shared property of the student and major professor.

Use of equipment or supplies must be approved by the faculty member responsible for such items. Graduate students must assume the appropriate responsibility for the use of university equipment and property, and for the care and return of borrowed books or articles and other materials. Equipment and rooms are for student and departmental research and are not to be shared with other students, spouses, or anyone not specifically authorized to use them.

# **Tips for Oral Defense of Thesis**

(From Dr. Lloyd Swanson; former Department Head)

- It is your (and your advisor's) responsibility to give the Department Head a copy of your thesis when you distribute it to everyone else on your committee.
- It is your (and your advisor's) responsibility to distribute a notice to all faculty and graduate students of the date, time, and place of your seminar.
- Listen carefully to the questions. I have observed that many graduate students 1) don't listen very well, and 2) always assume that the question is more difficult and technical than it really is. Faculty do not ask trick questions. However, often the question is not understood or is not phrased very succinctly. In that case, ask the questioner to repeat and/or rephrase the question.
- Go through a practice session with your advisor or with other graduate students. By this time you are expected to know how to "think on your feet."
- You must understand the statistics and laboratory assays you use. It is not acceptable to say that you simply entered the numbers into the computer or that you simply used a certain assay.
- You must understand the Land Grant philosophy and that Oregon State University is a Land Grant university. You are accountable for the animals and other resources that you used. You are using taxpayers' money.
- 7. You must be able to explain your research results in plain language. You cannot hide behind technical jargon.
- You must understand everything about the species of animal and management practices that you are using in your research. By everything, I mean that you should have a general understanding of the nutrition and physiology of that species, even if your degree is not in nutrition or physiology.
- Be aware that you are responsible for knowledge of the classes you have taken as well as for your thesis.
- 10. For those of you in a Ph.D. program, be aware that you're enrolled in a Doctor of Philosophy program. That means that you must possess some general knowledge, including things of everyday life. If you really want a Doctor of Science degree, you are enrolled in the wrong institution.
- 11. Again, learn how to listen to the questions.

# **Thesis Format**

Consult the "Thesis Guide" for assistance in writing and formatting your thesis. Guidelines are available on the web. In addition, close contact should be maintained with the Graduate School to become aware of periodic changes. The choice of format must be agreeable to the student and the major professor and to the remainder of the Program Committee (with one dissenting vote allowed from the remainder of the Program Committee). The Thesis Guide can be found at: https://gradschool.oregonstate.edu/progress/thesis-guide.

### **Research Publications**

#### **Publications**

The purpose of the following guideline on publication is to protect the interests of both the student and major professor. Research must be shared with colleagues if it is to be useful. Consequently, all research conducted for graduate degree programs is expected to be published in appropriate journals and other outlets. The major professor will work with each student to determine suitability for publication and authorship. When a student completes a degree, it is the student's responsibility to complete manuscripts for submission to journals. Students will be allowed six months following completion of the program to demonstrate intent to prepare appropriate manuscripts. The first draft must be completed within one year of degree completion. If these deadlines are not met, the major professor will assume responsibility for completing the publication process. In the case of multiple publications from a thesis, the student and major professor will file a written publication plan with the Department that defines time lines and authorship responsibilities.

#### **Ethical Guidelines**

Although there is general agreement on what constitutes authorship, there is still some abuse of the system. To help clarify this issue, the Endocrine Society published "Ethical Guidelines for Publication of Research" (Endocrinology 132:1, 1993). The following is taken from that publication and is included here as a useful guide for all beginning scientists.

#### Introduction

The Endocrine Society wishes to remind all of its members of the rules of good conduct as they apply to research and its publication. The fundamentals are honesty, fairness, good manners, and the subordination of self-interest to the common interest of our profession and of society. In these notes, the Publication Committee sets forth its rules of good conduct for authors, reviewers, and editors.

### Obligations of Authors

These things are forbidden:

- 1. Submitting the work of others, in whole or in part, as one's own. This is plagiarism (theft);
- 2. Fabricating a report of research in whole or part. This is fraud (lying);
- 3. Suppressing or altering data not in agreement with one's hypothesis. This is dishonest and self-serving.

The author must show the editor written permission to quote any information learned personally from another investigator or by reviewing applications for research grants. In the introduction and especially in the discussion

of a paper, the author should cite fairly the work of others that is relevant either to the origin or to the outcome of the research described.

The author may invite as co-authors only those persons who have made significant intellectual and scientific contributions to the work reported. A co-author's signature on the copyright release form submitted with the manuscript indicates that the co-author has had a part in the writing and final editing of the report, has been given a copy of the manuscript, and agrees to share responsibility and accountability for the results.

It is unethical to submit reports of the same or substantially overlapping research to more than one journal at the same time, unless the author can justify it in letters to both editors. Any preliminary accounts or abstracts of the work, already published, must be referenced in the complete report.

# **Grant Proposal Information**

- I. Where to find grant information
  - A. Research Office in Administration Building has a large book indexed by subject and name.
  - B. Research Briefs are put out every two weeks by the Research Office and are posted on the Internet.
- II. Who administers grants
  - A. The Research Office administers most grants that involve a contract and they have some important guidelines you need to know about:
    - 1. Only faculty can be the principal investigator so you must work through a faculty member.
      - 2. There will be overhead charged to the grant and this is dependent on the granting agency, so be sure to have this overhead calculated into your grant. See the Research Office web page (https://research.oregonstate.edu/osraa/forms-and-rates) for overhead rates, OPE and other rates for your budget.
  - B. The Agricultural Research Foundation (ARF) may administer some grants that are simply a gift if the gift is given to an individual faculty member for support of their research and is less than \$10,000.
  - C. E.R. Jackman Foundation (non-profit foundation) is able to accept donations on behalf of the department.
  - D. If you have questions or unique funding situation, please see the Department Head.
- III. The forms you will need to fill out:
  - A. Ask your major professor if you need to fill out the Institutional Animal Care and Use Committee form. The IACUC form needs to be filed before any other forms can be approved. This form is for any research involving live animals in the field or in the laboratory. This form is available at https://research.oregonstate.edu/iacuc/iacuc-forms
  - B. The Grant Proposal Check-off sheet (known as the BLUE sheet)
- IV. The sections of your proposal need to include:
  - A. A budget which must be approved by the Research Office BEFORE you submit a request to a granting agency. The normal sequence is for the department to approve and sign the budget, then College of Agricultural Sciences approves and signs it, and finally the Research Office approves it. Note however, you should give your budget to the Departmental accountant well in advance and ask for the accountant's comments first to avoid accounting problems.
  - B. A signature page with signatures obtained in the order listed: Principal Investigator, Department Head, Dean, and then OSU Research Office.
  - C. Any forms required by the granting agency.

# **Annual Academic Progress Documentation**

The purpose of this report is to allow the graduate student, the major professor, the student's graduate committee, and the Department Head to review the progress each student has made during the past year. These documents will provide the basic information to allow the Department Head to follow the program development of individual students. Such information will be critical for the department in making decisions on continuation of financial support.

The minimum criteria for satisfactory progress as codified by Graduate Council is:

Advanced-degree students (regularly, conditionally, and provisionally admitted) are expected to make satisfactory progress toward a specific academic degree. This includes maintaining a GPA of 3.00 or better for all courses taken as a graduate student and for courses included in the graduate program, meeting departmental or program requirements, and participating in a creative activity such as a thesis.

ANRS requirements for documenting satisfactory progress

- An annual written assessment showing adequate progress in coursework, development of thesis or writing project as evaluated by major professor and the rest of the student's graduate committee,
- Maintaining a GPA of 3.00 or better for all courses taken as a graduate student,
- Successfully passing relevant exams outlined by the Graduate School,
- Timely compliance with all Graduate School and Departmental requirements for committee formation, committee meetings, project proposal, submission of forms and information, participation in seminars and other activities expected of a student, scholar and citizen.

### Plan for Assessment of Graduate Student Satisfactory Academic Progress

- Early in their program (e.g., during their first term of enrollment) students should collaborate with their major professor and graduate committee to establish standards and expectations of satisfactory progress for that student's program.
- Student progress will be assessed annually.
- An assessment of student academic progress is made by the student, the student's major professor and, if requested, by other members of the student's graduate committee. Any member of the committee may write an evaluation of student progress for inclusion in the assessment package but this is optional.
- It is the responsibility of the student to write a self-assessment narrative, arrange to meet with their major professor to review academic progress, and to submit the assessment package to the departmental office no later than January 31st each year. The assessment package consists of the self-assessment narrative, any assessments written by committee members, and the signed and completed Assessment of Graduate Student Academic Progress form.

#### Process:

Early in January the student may want to discuss their advisor's expectations for various categories of progress or professional development prior to writing the self-assessment.

#### Self-Assessment Narrative:

The written self-assessment should summarize activities undertaken by the student since the last review and should address: (1) Coursework taken and grades received, (2) Field work, data collection/analysis, (3) Progress on writing thesis, (4) Participation in professional development opportunities, (5) Service to the Department and the University and (6) Any other relevant information, including any impediments to progress.

- 1. The student will then schedule a meeting with the major professor to review the student's selfassessment, progress, and accomplishments over the past year. Participation from other graduate committee members may be requested by either the student or the major professor, but is not required. If other committee members provide input the student should obtain their signature on the Assessment of Graduate Student Progress form.
- 2. The major professor reviews the student's materials and then fills out and signs the Assessment of Graduate Student Academic Progress form. The major professor (or any committee member) may document their assessment of the student's progress in writing for inclusion in the assessment, but this is optional. These written comments may be helpful to document expectations for the coming year. The student signs the form and is responsible for submitting the narrative and the signed and completed Assessment of Graduate Student Academic Progress form to the department office for inclusion in the student's permanent record by January 31st each year.

# Assessment of Graduate Student Academic Progress

Student Name	Date of Assessment:		
This completed form must be attached to the self-assessment I January 31 each year.	narrative and submitted to the ANRS Depar	tment Office before	
1. Completion of Milestones: Student: Please enter the term of completion (e.g. 'Winter, 2015)	5) next to milestones a chieved for your curre	ent degree.	
Committee formed (Enternames at right):		Dept:	
Conducted program of study meeting: Submitted program of study to ANRS Office:			
Submitted program of study to Grad School:		Dept:	
Prelims scheduled for (PhD):	_		
Prelims passed on (PhD):			
Final examscheduled for:			

2. Major Professor Assessment of Progress:			3. Signatures: I have reviewed my student's milestones (above) and self-assessment narrative, have completed the 'Major Professor Assessment of Progress'			
Major professor(s): Please discuss your res ponses with your student.			(left), and confirmed my student understands my responses.			
YES	NO	QUESTION				
		Student is making satisfactory progress in completing his/her course work.		Major Professor Signature(s)	Date	
		Student is making satisfactory progress in fieldwork, data collection analysis				
		Student is making satisfactory progress in completing his/her thesis.				
		Student has participated in professional development opportunities.		Committee Member Signature(s) (optional)  I understand my major professor(s)' assessment of my	Date  progress (left),	
		Student has provided service to the department or college. Service is not required, but may contribute	and am now submitting this fully completed form to to with my self-assessment narrative attached.			
		to professional development.	L	Student Signature	Date	

# **Graduate Education Performance Plan**

This form is intended to monitor a student's performance towards degree completion resulting from an unsatisfactory review at an annual assessment. This form should outline mutually agreed-upon (between student and major professor) benchmarks of performance.

Student		
Major Professor		
Plan (Identify deficiencies and outline plan to remed	ly them):	
Benchmarks (Criteria used to evaluate progress):		
Signatures		
Student	Date	
Major Professor	Date	
Department Head/Program Director	Date	

#### **After the Annual Review**

**Satisfactory Progress.** In most cases, students have made satisfactory progress, and any issues that surfaced in the review are adequately addressed. After review by the Graduate Acceptance and Review Committee, all paperwork will be placed in the student's file until graduation.

Unsatisfactory Performance Evaluation. The annual assessment may result in an unsatisfactory performance evaluation of the student. In cases of unsatisfactory performance the major professor will work with the student to develop the written Graduate Student Performance Plan for improving the student's performance. The plan will become part of the student's file and will contain tangible mileposts or benchmarks for improvement. The Department Head will review and monitor progress of this plan on a quarterly basis. In cases where the Department Head is the student's major professor, this review will be conducted by the chair of the Departmental Graduate Committee. Two unsatisfactory performance reports may result in terminating the student's graduate program.

Dissolution of the Major Professor-Student Relationship. The Major Professor-Student Relationship is the most basic component of the Department of Animal and Rangeland Sciences graduate program. Acceptance of a student into the program is initiated by a major professor willing to act as the student's mentor. However, both the Graduate School and the Department of Animal and Rangeland Sciences are responsible for providing a reasonable opportunity to complete degree requirements for students that are accepted into the program. In cases where the Major Professor-Student Relationship dissolves, the Department and Graduate School still have a responsibility to that student. Either the student or the faculty member may terminate the Major-Professor-Student Relationship. A student may terminate the Major Professor-Student Relationship in writing by resigning. Resigning from a Graduate Research Assistantship will immediately terminate the student's employment by the Department resulting in the loss of the Graduate Research Assistantship. A faculty member may terminate the Major Professor-Student Relationship in a letter to the student and Department Head. Mutually acceptable arrangements shall be negotiated by the major professor, graduate student and the Department Head. Students may request the Graduate School to appoint an advocate to assist them in negotiating a satisfactory settlement. In cases where the faculty member dissolves the Major Professor-Student Relationship, the student's Graduate Research Assistantship will continue through the end of his/her appointment (usually through the academic year). The Department is responsible for providing a reasonable opportunity for students to complete degree requirements for students whose Major Professor-Student Relationship has dissolved but who are otherwise still in good standing in the program. In such situations, the Department Head will act as the student's Major Professor or will assign a Major Professor to the student.

**Grievances:** If all other efforts to resolve problems fail, students who believe that they have been unfairly treated during their graduate program may file a grievance with the OSU Graduate School. Contact the Graduate School for grievance guidelines.

# **Procedures for and Responsibilities of Entering Graduate Students**

### **Academic Honesty**

Academic dishonesty is prohibited and considered a violation of the Student Conduct Regulations. It includes cheating, the intentional use of unauthorized materials, information, or study aids; fabrication, assisting in dishonesty or tampering (intentionally or knowingly helping or attempting to help another commit an act of dishonesty or tampering with evaluation instruments and documents); and plagiarism, intentionally or knowingly representing the words or ideas of another person's as one's own. (Taken from Student Conduct and Community Standards website.)

Demonstrate honesty and integrity in all aspects of your academic work.

### Registration

Consult the current Schedule of Classes for information and detailed instructions on registration procedures. http://oregonstate.edu/registrar/

#### **Student Identification Card**

You must register for at least three credits before obtaining an ID card. To obtain a student ID card, you must show evidence of official admission to OSU and proper identification (driver's license, passport, military card) to the ID Center (Kerr Administration B094 M-F from 8 to 5). Graduate students may obtain their ID card from *one week before* and throughout their first term of registration. For fall term, incoming graduate students may obtain their ID card anytime throughout the summer as well.

An OSU ID Card provides access to the following services. Different fees may apply based on student, employee, or other card status. https://fa.oregonstate.edu/business-affairs/id-center

Athletic Events

Dixon Recreation Center

Valley Library

Campus Dining and Coffee Shops

Campus Convenient Stores

Student Involvement (class notes)

Experimental College (classes, trips)

Craft Center (supplies, fees)

Barometer (ads, yearbook)

Corvallis Transit – ride free

### **Payment of Tuition and Fees**

Refer to the fee payment section of the current schedule of classes. *Fees are the responsibility of the student.* Tuition is waived for appointments of .30 FTE or greater.

Accounts are due upon receipt of the monthly statement and any unpaid balance remaining after the 1st of each month is subject to an interest charge of 12% APR. OSU currently accepts echeck, paper checks, money orders, and cash as acceptable payment methods. Students can use Online Services as a convenience option for making credit card payments.

### **Payroll**

If appointed to a GRA, see the Office Manager in Animal and Rangeland Sciences for completing hiring paperwork. You will need a Social Security card with a valid number and photo ID when you meet with the Office Manager.

You will be asked to fill out forms regarding withholding a portion of your salary for tax purposes. Seek advice on taxes from fellow students, payroll personnel, tax booklets (available at library) and http://www.irs.gov/.

#### Insurance

Graduate students *on assistantships* are required to have health insurance.

The University has established a graduate assistant health insurance plan. The cost is considerably lower than individually purchased health plans. Insurance is available for purchase during the open enrollment period at the start of each term. Graduate assistants who have other health insurance coverage deemed acceptable to the University may waive coverage under the University's plan. Graduate assistants who waive coverage under the University plan will not eligible for the university contribution towards health insurance premiums. Information packets and ordering materials are available by visiting the Student Health Service website at http://studenthealth.oregonstate.edu/graduate-assistant or calling 541-737-7568.

#### **ONID Accounts**

Sign up for ONID (OSU Network Identification).

ONID accounts provide:

- E-mail addresses your official University e-mail address (required in some classes)
- File storage
- Personal Web Pages
- UNIX Shell access

Other IS (Information Services) services – wireless network, Canvas, Residential Computer network, IS computer labs, Interlibrary loans

ONID e-mails are more secure than personal e-mail addresses. To activate your ONID account, access http://onid.oregonstate.edu/docs/gettingstarted/signup.shtmlfrom any computer (you will need your GAP). Your GAP number is created at the time of initial registration.

# **Laboratory Safety**

Graduate students are required to read the appropriate sections of the "University Safety Book" before they can legally work in the lab. All graduate students, however, should read the entire booklet. You may borrow the Department copy from the Office Manager. Use common sense while working in the lab or barns. If you have doubt, do not be afraid to ask someone else. If you have questions regarding laboratory safety, contact Tina Mills and if you have questions about Farm Safety, please contact Seth Spencer or the appropriate unit manager. There are certain items (biohazards, radiation, carcinogens) that require a higher level of training. Contact EH&S for radiation safety and biohazard training.

#### In Case of Fire

- 1. Activate the building fire alarm by pulling the nearest wall "fire pull" to alert occupants. The alarm does not always call firefighters to the scene, but most alarms are connected to the campus notifier system that is monitored by the Public Safety Dispatch Center.
- 2. Call the Corvallis Fire Department (911), and give the exact location of the fire.
- 3. Evacuate occupants from the building. Follow building evacuation procedures. Send someone outside the building to direct fire fighters to the scene.
- 4. For small fires, use the closest appropriate fire extinguisher. Do not use water on electrical fires. Make sure while you are working in a lab that nothing is blocking the fire extinguisher.

#### **Building Evacuation**

When the alarm sounds, walk to the nearest usable exit. Use the stairways and NEVER use the elevator because it can quickly become filled with smoke and be a firetrap when electrical power is lost. Be aware of alternate exits from the building.

Before leaving the workstation, take personal valuables and lock up any valuable materials or documents. Do not, however, endanger life through delay. Assist non-ambulatory persons leaving the building.

Use fire escape ladders only when the stairways are closed by fire. Before opening a door during a fire, feel each door with the back of your hands before opening it. If it feels hot, use an alternate exit. If caught in smoke, keep low where the air is better. Take short breaths through the nose.

When outside the building, do not block doorways or driveways. Stay a minimum of 100 feet from the building. Do not return to the building until advised to do so by personnel in charge.

#### **Personal Protective Equipment**

Each lab will be responsible for issuing its own personnel protective equipment. It is impossible for the department to keep track of each procedure a lab performs and its associated safety equipment. If you are performing a new procedure or one you haven't done in a long time it's your responsibility to go over it with your professor.

#### **Emergency Treatment**

Determine the extent of a person's injury by checking for breathing, pulse, bleeding, possible fracture, and pain. Administer first aid appropriate for the injuries if you are properly trained. If the injured person is:

- **Not conscious or ambulatory**, dial 9-911 on any campus phone for the Corvallis Fire Department ambulance. The ambulance crew will determine whether injured students should be transported to the Student Health Center or to the hospital.
- Conscious and ambulatory STAFF, arrange for transportation by car or ambulance to the hospital or doctor's office as desired by injured person. If a supervisor or fellow employee is not available to provide transportation, contact Public Safety at 7-7000 because they are responsible for ensuring that appropriate transportation is obtained.
- Conscious and ambulatory STUDENT, arrange transportation to the Student Health Center

#### **Keys**

You will need keys to enter the building and the office or lab you work in. Your major professor should send an e-mail to Tina Mills with your name, student ID number, and the numbers of the rooms for which you will need keys. A key request form will be provided so that you may receive the necessary keys from the university key shop.

The Physical Plant Key Shop is the institutional key shop. Keys may be duplicated only by this institutional key shop. When picking up keys, photo ID must be presented and the key request signed.

The institutional key shop maintains a file of these requests, numerical lists of keys issued, and alphabetical lists of personnel having keys. These lists are kept by buildings or areas of the campus for ready reference.

Keys are the responsibility of the individual. Loss of keys must be reported promptly to Janet Knudson and institutional key shop. Replacement of lost keys will be made upon submission of a key approval form signed by Janet Knudson and replacement keys will bear a different number from the original.

Duplication of keys that have been issued is strictly forbidden. Anyone found to have an unauthorized key may be subject to loss of privileges for after-hours use of the building and may forfeit all keys that have been issued to them.

Upon leaving the employ of the institution, all university keys must be returned to Tina Mills. Failure to return keys will result in loss of deposit and potential fees.

#### **After-Hours Permit**

Students need to obtain an after-hours permit to legally remain inside the building after hours and on weekends. You may obtain this permit from Graduate Program Coordinator, Tina Mills in Withycombe 110.

#### Mail

Department mailboxes are located in **Withycombe 113**. You should check your mailbox on a regular basis. University business, department announcements, and any other messages related to you are usually put in your box. All campus offices and personnel can be reached through campus mail (which is free for any OSU student, staff, or faculty member to use).

# **Telephones**

All telephones are restricted for official business. An authorization code is required for long distance business calls; it may be obtained from the Office Manager. When ordering, use toll free numbers whenever possible. Use of departmental authorization codes for long distance personal business is strictly prohibited.

### **Copy Machine Use**

The photocopy machine in Room 113 is for business use. Each faculty member has an account. Your major professor will need to authorize the creation of a code for your use. This authorization is made to the Office Manager. See Appendix VI for the Department of Animal and Rangeland Sciences Printer and Copy Use Policy.

### **Computer Network**

The department operates and maintains support for its own microcomputer server-based network system. This network is for faculty, staff, and graduate and undergraduate students in Animal Sciences. See Appendix VII for the Department of Animal and Rangeland Sciences Acceptable Use Policy for Computing Facilities.

A student computer laboratory is located in Room 205. This lab is a joint teaching lab that is scheduled by OSU and available for students when classes are not being taught.

#### **Seminars**

All students are expected to attend scheduled departmental seminars whether registered or not. The only allowed exception is for students who have a direct conflict with schedule of classes. Subject matter discussed in these can be appropriate questions on written and oral preliminary and final examinations. This will be enforced by the student's major professor.

#### **Research Data**

It is to be expressly understood that all research data are the property of the Agricultural Experiment Station and original copies must be retained by the major professor for future use. Students should conform to specific requirements set forth by their major professor accumulating research information. *Under NO circumstances are data to be published without prior departmental review.* 

# Opportunities for Leadership and Co-Curricular Activities

Please visit the following websites to find out about student activities at OSU: <a href="https://sli.oregonstate.edu/sli">https://sli.oregonstate.edu/sli</a> <a href="https://sli.oregonstate.edu/sli">https://sli.oregonstate.edu/sli</a>

## **Travel Guide for Students**

All reimbursable travel must be approved by your major professor before you leave. What you will be reimbursed for and the reimbursement limits must be negotiated with your major professor before travel begins. You may be limited to mileage only or for certain meals only.

If you are traveling out of state, you must complete and submit an Out-of-State Travel Authorization Form at <a href="https://employee.extension.oregonstate.edu/forms/out-state-travel-authorization">https://employee.extension.oregonstate.edu/forms/out-state-travel-authorization</a>. Do not wait until the last minute to do this!

#### Remember to:

- Complete ALL areas including funding source (index to be charged)
- Give brief explanation why travel is necessary
- Obtain your professor/advisor's signature

E-mail the completed form to Dr. Mata-Gonzalez for his approval (he will CC the travel coordinator). This form **MUST** be completed before airfare can be authorized or your reimbursement request processed.

After your Out-of-State Travel Authorization form is approved, you'll work directly with the OSU contracted travel agents to make your airline reservation to determine your itinerary:

Azumano Travel Services Teel's Travel Planners
Ph: 541.757.9792 or 800.334.2929 Ph: 541.758.0808

azcorvallis@azumano.com travel@travel-planners.com

You must use the contracted agencies unless you can document that you can get a better price on your own than the agency can offer. If you do find a better price, you still need to get a quote from either Azumano or Teel's showing their prices. OSU will not reimburse more than the quoted amount from the contracted travel agencies. If you do purchase your own ticket, you will not be reimbursed for the cost of the ticket until you return from your trip.

## **Registration Options**

You may pay in advance for any approved meetings or workshops and submit your receipt along with your travel reimbursement. Alternatively, you can contact the department to have your registration paid using the department's credit card. Please have the index/activity code available and pre-approved with your major professor before contacting the department. This will avoid an out-of-pocket expense for you.

## **Lodging Options**

The university allows a "per diem" amount depending on location. Check the lodging per diem allowed for your area of travel before making your reservations.

- Per diem rates DO NOT include lodging tax
- You will be reimbursed for single occupancy rate only

• TIPS to waiters, bell persons, maids, taxi drivers, etc. are included in the daily per diem allowed. Please do not include them on your reimbursement request.

**Exception - Conference Site Lodging:** You can be reimbursed for actual lodging costs (with a receipt) if staying at a conference site hotel. Documentation of lodging facility's designation as a conference site hotel is required. Submit a copy of the conference brochure or registration form stating name of event, date(s), and location.

**Sharing Lodging**: if you share lodging with another employee or OSU graduate student, you can be reimbursed for half of the cost (within the allowable rate limits), or you can be reimbursed for both yourself and the employee. You must include their name and a statement that they will not be claiming lodging.

If the lodging is shared with a non-employee or non-OSU graduate student, such as a spouse, you can be reimbursed for the single-person rate shown on the receipt (if not shown, verify the single rate before leaving the motel so that phone class to verify the amount need not be made later). You will be reimbursed for the full amount of taxes shown on the motel bill.

#### **Meal Reimbursements**

Receipts for meals are not required. OSU allows a "per diem" amount for meals depending on location. Things to keep in mind:

- The per diem allowance includes gratuities
- Paying for a meal for OSU employees/students only is NOT considered a hosting situation, therefore is NOT reimbursable
- Individuals should pay and submit reimbursement requests only for their own meals

#### **Phone Calls**

Long distance calls must be listed with date, city, and name of person/office called. You may be reimbursed for a call of up to five minutes to your residence on the first day of travel and every other day thereafter.

## **Rental Cars and Ground Transportation**

Due to liability issues, all faculty, staff, and students traveling on university business are required to use one of the OSU contracted providers when available.

Graduate students on assistantship are university employees, giving them the right to drive state-owned vehicles. You must fill out a Motor Pool Driver Authorization Form (<a href="https://transportation.oregonstate.edu/motorpool/driver-qualifications/driver-authorization-form">https://transportation.oregonstate.edu/motorpool/driver-qualifications/driver-authorization-form</a>) before you will be allowed to drive state-owned vehicles. This includes trucks at the animal facilities and cars to attend meetings. Absolutely no personal use of university vehicles is allowed.

#### **Enterprise Rent-A-Car**

\*Contract No. 46OR006 OSU Transportation Services (motor pool)

Ph: 800.261.7331 | Ph: 541.737.4141

\* You must provide contract number to obtain OSU rate and liability insurance coverage If you use other than one of the above providers, you MUST purchase limited collision damage insurance to cover loss or potential damage to the vehicle. Purchase "LDW" or "CDW;" both are limited collision damage insurance for which you will be reimbursed.

**Ground Transportation**: 1) All ground transportation expenses such as taxis, shuttles, buses, etc. should be itemized on the reimbursement request; 2) Tips for taxi/shuttle drivers are included in the daily per diem meal/incidental expense allowance. Please do not include them on your reimbursement request.

## **Use of University Vehicles**

- 1. Vehicles operated by the Motor Pool may not be used for any personal business. They must be driven only by personnel in the employ of Oregon State University.
- 2. Non-employees cannot be carried as passengers unless their travel involves or relates to official business of Oregon State University. Picking up hitchhikers is not permitted. Spouses are permitted as passengers only on long trips or late at night (to help keep the driver awake) and then only with prior permission of the dean or department head. No pets are allowed in vehicles.
- 3. Cars must be operated at all times so as not to violate basic rules for careful driving. State cars are checked regularly by the Oregon State Police and the insurance company, and reports of operation relayed back to the responsible supervisor.
- 4. Drivers must have valid driver's licenses. It need not be from Oregon.
- 5. Drivers shall be personally responsible for costs resulting from the following:
  - a. Fines resulting from violations of law.
  - b. Damage to vehicles caused by transportation of pets or other personal belongings, or resulting from unnecessary abuse or neglect of the vehicles.
  - c. Damage to vehicles while engaged in unauthorized or illegal use.
  - d. Restoration of vehicles to original condition when necessitated by installation or removal of personally owned accessories or equipment.
  - e. Damage to vehicles caused by gross negligence of drivers.
- 6. Payments for use of vehicles must be by requisition charges against departmental budgets through the Oregon State University Business Office. Cash payments from individuals cannot be accepted.
- 7. Any accident involving Motor Pool vehicles must be reported to the Motor Pool, 541-737-4141, as soon possible. After hours, call 541-737-0123 and ask for Motor Pool emergency.
- 8. State-owned vehicles shall not be driven in excess of authorized and posted speeds and shall at all times be driven in a manner conducive to safety, economy, and good public relations.

#### **Airfare**

You can purchase your airfare online or through a local agent, however OSU encourages us to purchase airfare through one of the OSU contracted travel agents for the following reasons:

- you will not have any out-of-pocket expense for your airfare;
- You will not be liable for the cost of your ticket should the trip be canceled.

If you purchase your airfare online or through a local (non-OSU) travel agent you MUST OBTAIN a comparative price quote from one of the OSU contracted travel agent BEFORE YOU PURCHASE YOUR AIRFARE. This price quote must demonstrate the cost savings of the online or local agent fare and must be submitted with your reimbursement request.

If you purchase your airfare online or through a local agent, you must SUBMIT THE FOLLOWING ITEMS TO BE REIMBURSED:

- Comparative price quote from the OSU contracted travel agent;
- Receipt of purchase;
- Itinerary showing class of service (must be economy or coach); and
- Boarding stubs or passes from each leg of the flight.

Travel is complete, now it's time to submit your reimbursement request. Submit completed reimbursement request form and receipts to the Travel Specialist. Travel reimbursement requests are normally processed within 3 business days. Once your reimbursement request is processed, it will be placed in your mailbox for your signature. Please sign and date in the box labeled CLAIMAINT'S SIGNATURE and return to the Travel Specialist.

Remember to include the following on your reimbursement request: complete travel itinerary (date, departure, and arrival times are needed); OSU ID number; Index number; All expense receipts (except for meals); any necessary backup documentation

**Receipts are REQUIRED for the following**: lodging, parking if \$25 or more, miscellaneous purchases regardless of the amount, rental vehicles, gasoline receipts used with the rental vehicle, registration fees, airfare purchased from vendors other than contracted travel agencies, and phone calls if \$25 or more.

**Receipts are NOT required for the following**: meals; taxi/limo/bus fares, tolls, and shuttle fees under \$75; airfares purchased through contracted travel agencies.

Credit Card charge slips cannot be used as receipts unless they have detailed information on the purchase (where, when, and what was purchased). Credit card receipts generally do not include this. Always turn in the vendor receipt unless it was not received.

## **Purchasing Procedures**

## Cost guidelines when placing orders

- <\$5,000 can be purchased with departmental approval
- >\$5,000 must have a Purchase Order completed and approved by OSU Procurement and Contract Services
- Single items >\$5,000 qualify as equipment and must be inventoried
- Price agreements exist for all kinds of items at many companies where OSU does significant business. You are not required to shop with these companies, but there is often substantial savings by doing so.
- Chemistry Store will charge directly to the department
- Office supplies can be found in 113 Withycombe—additional supplies can be ordered through OfficeMax or Staples (see Office Manager)

BEFORE purchasing any items, get purchase approval and an index/activity code from your major professor.

See the Office Manager in the department to have assistance ordering with the departmental credit card.

When you receive an order, inspect it to be sure it is okay. Give the packing slip to the Office Manager.

## **Graduate Faculty**

Name	Degree	Institution	Year
ATES, Serkan	Ph.D. M.S. B.S.	Lincoln university (New Zealand) Suleyman Demirel University (Turkey) Selcuk University (Turkey)	2010 2002 1998

Development of environmentally and economically sustainable ruminant grazing systems including tactical grazing and feeding techniques for grazing animals. Investigating pasture species, mixtures and combinations in maximizing the pasture productivity, animal production and product quality. Grazing management of dual purpose (grain and animal feeding) of cereal crops.

BIONAZ, Massimo	Ph.D.	Universitá Cattolica del Sacro Cuore	2004
	B.S./M.S.	Universitá Cattolica del Sacro Cuore	2000

The connection between nutrition, gene expression, and metabolism in farm animals, especially in dairy cows; with a particular attention in physiopathology.

BISHOP, Cecily	Ph.D.	Oregon State University	2006
	B.S.	Washington State University	2001

Factors regulating reproductive physiology of domestic ruminant species (ewes and cows), and nonhuman primate models of female infertility. Interaction between nutrition/metabolism and reproduction; in vitro cellular and molecular studies, as well as in vivo reproductive physiology, including minimally-invasive imaging techniques to analyze vascular flow and permeability of the primate reproductive tract in situ.

BOBE, Gerd	M.P.H.	John's Hopkins School of Public Health	2006
	Ph.D.	Iowa State University	2002
	M.S.	Iowa State University	1997
	M.S.	Rheinische Friedrich-Wilhelms Univ.	1992
	B.S.	Rheinische Friedrich-Wilhelms Univ.	1991
	A.A.	Agriculture Vocational School Lemgo	1989

Dietary prevention of peripartal diseases and reproductive problems in dairy cows; Improving the nutritional value of dairy products for human consumption by nutrition and breeding; Molecular targets and response/risk biomarkers for dietary cancer prevention; Nutritional genomics and proteomics.

BOHNERT, David W.	Ph.D.	University of Kentucky	1998
	M.S.	Angelo State University	1994
	B.S.	Angelo State University	1990

Protein supplementation of ruminant livestock, development of techniques to improve our understanding of forage and supplement intake, maximizing productivity from a forage base, including investigation of alternative grazing management strategies.

CHERIAN, Gita	Ph.D.	University of Alberta	1993
	M.Sc.	University of Alberta	1985
	BVSc.	Kerala Agricultural University	1979

Poultry nutrition with emphasis on lipids and polyunsaturated fatty acids; effect of nutrition on the immune system; dietary antioxidant nutrients and poultry product quality; development of value-added functional poultry foods

DINKINS, Jonathan	Ph.D.	Utah State University	2013
	M.F.A.	Montana State University	2005
	B.S.	University of Puget Sound	2001
	B.A.	University of Puget Sound	2001

Animal behavior, habitat-based demography, human-wildlife interactions, population dynamics, predator-prey interactions, and wildlife habitat use.

ENDRESS, Bryan	Ph.D.	Miami University	2002
	M.S.	University of Illinois – Urbana-Champaign	1997
	B.S.	Luther College	1995

My research seeks to identify and understand factors influencing vegetation structure, composition and dynamics and how this information can inform natural resource management. Currently, my research focuses on a range of issues including invasive plant science and management, ecological restoration, vegetation responses to management actions and alterations in disturbance regimes, and plant-animal interactions.

HERMES, James C.	Ph.D.	University of California-Davis	1988
	M.S.	University of California-Davis	1981
	B.S.	University of California-Davis	1979

Production and management of poultry; waste management; incubation of avian species; production of emu

KENNEDY, Matthew	M.S.	Oregon State University	2005
	B.S.	Oregon State University	2003
	A.S.	Casper College	2001

Applied nutrition and alternative feedstuffs used in livestock production, beef and swine management/production methods.

KUTZLER, Michelle	Ph.D.	Cornell	2002
	DVM	Washington State University	1993
	B.S.	Washington State University	1990

Field of companion (large and small) animal reproduction. Application of GnRH (gondaotropin release hormone) vaccines in a wide variety of companion animals and uses (e.g., immunocontraception, treatment of urinary incontinence). A new area of investigation is to identify the mechanisms regulating the migration and differentiation of trophoblasts (placental cells) within the endometrium of pregnant dogs.

MATA-GONZALEZ, Ricardo	Ph.D.	Texas Tech University	1999
	M.S.	New Mexico State University	1995
	B.S.	Universidad Autonoma Chapingo	1989

B.S. Universidad Autonoma Chapingo 1989 Groundwater and vegetation relationships in arid environments; ecology and eco-physiology of invasive plant species in rangelands; biomass productivity of arid land vegetation; ecology of disturbance and ecosystem restoration.

MORRIS, Lesley R.	Ph.D.	Utah State University
	M.S.	University of Nevada
	B.S.	University of New Mexico

Research on how land-use legacies from historical cultivation and rangeland re-seeding projects affect recovery and restoration efforts.

MUELLER, Chad	Ph.D.	South Dakota State University	2003
	M.S.	South Dakota State University	1998
	B.S.	Oklahoma State University	1995

Different integral aspects of both pre-weaned and post-weaned beef calves; nutritional and management issues affecting calf performance (pre- and post-weaning), health, and carcass development; these projects will revolve around both conventional and forage-based beef programs, and include both economic and environmental considerations.

OCHOA, Carlos	Ph.D.	New Mexico State University	2011
	M.S.	New Mexico State University	2002
	B.S.	Universidad Autonoma de Chihuahua	1993

Topics of rangeland hydrology, surface water and groundwater interactions, vadose zone hydrology, landscape hydrologic connectivity, and watershed and riparian systems management.

SHERWOOD, Dawn M.	Ph.D.	University of Nebraska, Lincoln	2007
	M.S.	Texas Tech.	1997
	B.S.	Texas Tech	1994

Complete equine nutrition regarding young growing horses and high intensity performance horses. Composting manure and the environmental impact by equine facilities.

UDELL, Monique	Ph.D.	University of Florida	2011
	M.S.	University of Florida	2008
	B.S. (Biology)	Stetson University	2005

Research focuses on animal behavior and social cognition, including lifetime factors that facilitate social bonds between humans and other species. Although Dr. Udell has worked with many species including wild cats, ferrets, horses, megachiropteran bats, coyotes, foxes, mice, birds, and non-human primates, for the last several years her work has primarily focused on the social development and cognition of domestic dogs and captive wolves.

## **Animal and Rangeland Sciences Contact Information**

Main Office 541-737-3431 Department FAX 541-737-4174

Interim Department Head

Ricardo Mata-Gonzalez 108 Withycombe 7-1891 ricardo.matagonzalez@oregonstate.edu

Departmental Graduate Committee Chair

Gerd Bobe 120 Linus Pauling Science Center 7-1898 gerd.bobe@oregonstate.edu

Graduate Program Coordinator

Dodi Reesman 110 Withycombe 7-4761 dodi.reesman@oregonstate.edu

Office Manager

EMEDGENICA

Tina Mills 110 Withycombe 7-1619 tina.mills@oregonstate.edu

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## Other Contacts on Campus

EMERGENCY	7-7000 from c	campus phones or 911 from any other	phones
Graduate School		Kerr Admin 300	7-4881
Business Affairs		Kerr Admin 1st Floor	7-3031
Media Center		109 Kidder	7-2121
Writing Center		123 Waldo	7-2930
Career Center		Kerr Basement	7-0529
Counseling and Psychologica	1 Services	500 Snell	7-2131
Student Health Services		Plageman Bldg	7-9355
Parking Permits		100 Adams Hall	7-2583
Valley Library			7-3331
Dept. of Public Safety (Orego	on State Police	NON-EMERGENCY)	7-3010

## **APPENDIX I: Research Protocol Form**

Project Title:			
P.I.:		Faculty Involved:	
AES Unit(s) Involved:		Students Involved:	
Total Non-AES Funds Involv	ved:		
Source of Non-OSU Funds:			
Experimental Design: Eitho	er describe here or atta	ch research proposal.	
Anticipated Start and Comple	etion Dates:	FromTo	
Objective of Research:			
Variable Expenses of Project	::		
Feed:	Income Reduction:		
Labor:	Decreased Animal Pe	erformance:	
Motor Pool:	Other:		
Health:	Source of Funds for A	Additional Costs and/or Income Reduc	tion:

Responsibilities of P.I.:
Responsibilities of Extra Labor Provided by P.I.:
Responsibilities of Unit(s) Staff:
Research Schedule of Events (List Only Dates Requiring Farm Staff Actions):
Changes to normal care procedures?
Comments:

P.I.		Date
Must get signatures of unit superv	visors of all units involved in p	roject, including Farm Service
Unit Manager(s) agrees to provide	e support stated above:	
Accept	Not Accept	Date
Accept	Not Accept	Date
Department Head: (Departmental	Approval required before AC	UP will be approved)
Accept	Not Accept	Date
Office Use Only:		
Ration Formulations Available		
ACUP on File		

## **APPENDIX II: Printer and Copier Policy**



Department of Animal and Rangeland Sciences
Oregon State University, 112 Withycombe Hall; Corvallis, Oregon 97331-6702
T 541-737-3431 | F 541-737-4174 | http://anrs.oregonstate.edu

Memo to: Animal and Rangeland Sciences Faculty, Staff, Graduate Students, and Student

**Employees** 

From: John Killefer

Subject: Policy Statement

## Department of Animal and Rangeland Sciences Printer and Copier Policy

## **Limitations for Using Departmental Copier**

The Animal and Rangeland Sciences copier is to be used for work related copying only. Under no circumstances should an undergraduate or graduate student taking an Animal and Rangeland Sciences class be given a copy code or permission to use the copier to copy materials for class or to copy notes.\* Graduate students may copy materials for research related activities as long as they use a code that will be directly charged to their major professor's account. Student clubs may request permission to get a copy code if they have an MU account that can be charged for the copies. Copying of personal items for faculty and staff is not allowed.

### Printer Use in the Student Computer Lab

Please request students in your classes to respect printer use in the student laboratory. They may use the printer only for Animal and Rangeland Sciences class projects or to download Web material that they need for class. There is a \$0.07 charge per page of printing.

## **APPENDIX III: Acceptable Use Policy for Computing Facilities**



Department of Animal and Rangeland Sciences
Oregon State University, 112 Withycombe Hall; Corvallis, Oregon 97331-6702
T 541-737-3431 | F 541-737-4174 | http://anrs.oregonstate.edu

Memo to: Animal and Rangeland Sciences Faculty, Staff, Graduate Students, and Student

**Employees** 

From: John Killefer

Subject: Policy Statement

Department of Animal and Rangeland Sciences Acceptable Use Policy for Computing Facilities

In accordance with the Oregon State University Acceptable Use policy for Computing Facilities, I do as supervisor allow personal use of computers by employees when doing so does not interfere with the institution's or with the employee's ability to carry out institution business. By this I mean to say that it is acceptable to utilize the computer when taking a break, over your lunch hour, etc. to access sites that may be of interest to you. It is never acceptable to utilize the University Computer resources to access and/or forward pornography or other material that would be deemed by others to be offensive.

# APPENDIX IV: Proficiency Recommendations for Completion of Graduate Work in Rangeland Ecology and Management

General Education:
1. Chemistry through organic chemistry
2. General Biology (at least 1 course)
3. Calculus
4. General Ecology
5. Introductory Soils (CSS 205)
6. Statistics (upon advisor's recommendation)
Discipline Education:
1. Plant Taxonomy/Agrostology (at least 1 course)
2. Plant Physiology (may be taken at the undergraduate or graduate level
3. Soils - Morphology and Classification (CSS 566)
4. Rangeland management
a. Rangeland Ecology and Management (RNG 341)
b. Wildland Restoration and Ecology (RNG 421/521)
c. Rangeland Analysis (RNG 441/541)
d. Rangeland-Animal Relations (RNG 442/542)
e. Rangeland Management Planning (RNG 490/590)
5. Watershed Science
a. Desert Watershed Management (RNG 355)
Graduate Degree Recommendations:
1. Experimental Design/Statistics
2. Research Ethics (PHL 547)
3. "Range Core"
a. Wildland Plant Ecophysiology (RNG 643)
b. Rangeland Ecology (RNG 662)
Some requirements can be met by other course alternatives.