5-year New Graduate Program Self-study Report

Forest Ecosystems and Society Graduate Program (2012-2017)

in the

College of Forestry Oregon State University

Fall 2017

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1 INTRODUCTION AND CONTEXT

1.0 HISTORY

The Forest Ecosystems and Society (FES) graduate degree program was created in early 2011 through an expedited Cat I Proposal to rename the Forest Science graduate program (FS) and revise the program objectives. This was in response to a reorganization of 4 departments in the College of Forestry (Forest Science, Forest Resources, Forest Engineering and Wood Science and Engineering) into 3 new departments (Forest Ecosystems and Society, Forest Engineering, Resources and Management and Wood Science and Engineering) and the subsequent shuffling of faculty that occurred as a result. In that shuffling, social science faculty from the former Forest Resources Department were combined with forestry, biology and ecology faculty from Forest Science within the new FES department. The revised graduate program was to provide specific disciplinary opportunities in both ecological and social sciences in the natural resource setting and develop interdisciplinary skills and knowledge. *Our program objective was, and continues to be, to develop interdisciplinary thinkers, highly capable scientists, and natural resource leaders who are prepared to solve complex socio-ecological problems.* The students will be able to identify and contribute to collaborative solutions in ecology and natural resources-related social science. Student learning will occur in the classroom via teaching, through student research opportunities and through complementary outreach activities such as student teaching, seminars and workshops.

The Appendix Section contains the following:

- Appendix I: Cat I Proposal for the renaming of Forest Science to Forest Ecosystems and Society
- Appendix II : FES Graduate Program Handbook
- Appendix III: Graduate Faculty in 2011-12
- Appendix IV: Graduate Learning Outcome Report for AY2016
- Appendix V: Biennial FES Program Evaluation Report to the Graduate School
- Appendix VI: Summary of FES Graduate Exit Interviews 2014-2017

1.1 WHEN DID THE PROGRAM ADMIT ITS FIRST COHORT OF STUDENTS?

The Cat I Proposal approved by Faculty Senate is included as Appendix II. In Fall 2011, the FES and FS degree programs operated concurrently. Matriculating students had applied and been accepted into the FS program but a few of these students changed to the FES degree program. In Fall 2012, the first full cohort of FES students enrolled and the FS degree program no longer accepted students. The last FS students (3 Ph.D. students) graduated in Spring 2017.

1.2 EXPLAIN ANY MAJOR DEVIATIONS IN THE PROGRAM FROM THE ORIGINAL CAT **1** PROPOSAL

1.2.1 Mission:

Our program objective continues to be "to develop interdisciplinary thinkers, highly capable scientists, and natural resource leaders who are prepared to solve complex socio-ecological problems." There is no deviation from the Cat I proposal.

1.2.2 Learning Outcomes:

The FS learning outcomes (called competencies) were retained in the new FES program. In 2014, through a series of faculty meetings and faculty retreat, the competencies were reviewed and a new learning outcome on Interdisciplinary Collaborative Problem Solving was added to more closely align with the FES program objectives. The learning outcomes are described in the Appendix II FES Graduate Program Handbook on page 24.

1.2.3 Faculty

In the past 5 years the College has hired 5 new assistant professors, had a number of retirements and 3 FES faculty members moved to administrative positions in the College. The table below shows changes in the graduate faculty between 2012 and Fall 2017. The number of graduate faculty who direct graduate student research has declined by 12 positions and the number of graduate faculty who serve only on committees has increased by 10 positions (mostly due to an increase in the number of Courtesy faculty).

The FES graduate faculty list includes many people who support only a single committee. In the summary below the words 'regularly direct' indicate FES graduate faculty who are either T/TT faculty in FES, or, if not T/TT, they serve as major professor to multiple FES graduate students. Some professorial Sr.Research faculty in the FES program do not regularly direct graduate students and some do.

Graduate Faculty lists were summarized from the list of Graduate Faculty in the Cat I Proposal (see Appendix III Graduate Faculty in 2011-12). Graduate Faculty in 2017 are given in Tables 6.1.1 and 6.1.2 of this report

| | Number of Graduate Faculty who <u>regularly direct</u> graduate student committees | | | | | |
|---|---|--|--------|--|--|--|
| | 2011-2012 | 2017-2018 ¹ | Change | | | |
| FES professorial faculty who regularly direct grad students | 30 | 24 ² | -5 | | | |
| Adjunct OSU professors | 7 | 3 | -4 | | | |
| Non-professorial faculty ³ | 2 | 2 | 0 | | | |
| Courtesy Faculty who direct committees ⁴ | 9 | 6 | -3 | | | |
| Total | 48 | 35 | -12 | | | |
| | | | | | | |
| | Number of Gradu | ate Faculty who <u>do not re</u> student committees | | | | |
| FES professorial with Dean/Assoc. Dean positions | 0 | 3 | +3 | | | |
| FES professorial faculty | 5 | 3 | -2 | | | |
| FES non-professorial faculty | 10 | 3 | -7 | | | |
| Adjunct OSU professors | 6 | 1 | -5 | | | |
| Courtesy Faculty | 10 | 31 | +21 | | | |
| Total | 31 | 41 | +10 | | | |

¹ Data are from Table 6.1.1 and 6.1.2

² 13 professorial faculty on our Graduate Faculty will be retired by Fall 2017 are not included in this total.

³ Research Associates, Instructors.

⁴ Ph.D. researchers from other research institutions, including USDA Forest Service PNW Research Station, USGS Forest and Rangeland Ecosystem Science Center, and other institutions.

⁵ Primarily consists of faculty serving on a single graduate committee, or teaching a specialized course, or courtesy faculty who serve only as committee members.

1.2.4 Curriculum

There were no curricular changes proposed in the Cat I. The FES curriculum is flexible and allows students, in consultation with their graduate committee, to choose any courses that meet their needs. Students are strongly encouraged to take FES 520 Posing Researchable Questions to 'jump-start' their thesis research, and most students take statistics courses in their first few terms of enrollment. After that, each committee determines the courses that a student takes.

1.2.5 Organizational Structure

There has been no change in the organizational structure of our program. Lisa Ganio (Associate Professor) is the graduate program director and Jessica Bagley (Administrative Program Assistant) was hired in 2014 as the graduate program coordinator.

1.2.6 Infrastructure

The Cat I proposal identified important facilities and resources as the H.J. Andrews Experimental Forest, the OSU College Forests (McDonald –Dunn, Spaulding, Marchel and Blodgett forest tracts), The Cooperative Chemical Analytical Laboratory (CCAL), the Forestry Computer network and the College's statistical consulting program. These resources continue to exist and support our graduate program.

A significant future addition will be a new building to replace the old Peavy Hall. The new building will contain new laboratory space, newer and larger classrooms and an environment more conducive to collaboration and teamwork compared to the old Peavy Hall. The old Peavy Hall has been demolished and our office space and laboratory space is currently reduced from previous levels. However, we expect to have more useable space when the new Peavy Hall is finished (possibly in 18-24 months).

1.2.7 Partnerships

The range of partnerships in the FES graduate program has increased relative to the historic partnerships of the Forest Science program. Forest Science had strong ties to USDA Forest Service Pacific Northwest Research Station, USGS Forest and Rangeland Ecosystem Science Center, and the U.S. Environmental Protection Agency Laboratory, all located near Richardson Hall. The new FES Graduate program includes these partnerships and more. Faculty in FES were asked, via email, to identify partnerships that they currently have. The following list was supplied by 9 faculty, two Assistant Professor, 2 Associate Professors, 4 full Professors and one Courtesy Professor who represent the range of disciplines in FES.

- US Forest Service
- US Geological Survey
- National Council for Air and Stream
 Improvement
- BirdLife International
- Parks Canada
- Canadian Wildlife Service

- Oregon Department of Fish and Wildlife
- Oregon Department of Forestry
- Smithsonian
- Northwest Natural Resources Group
- Selected small woodland owners
- Forest Stewards Guild
- NASA

- Washington Department of Natural Resources
- Washington Department of Fish and Wildlife
- Wallowa Resources
- Sustainable Northwest
- Bureau of Land Management
- The Nature Conservancy
- Central Oregon Intergovernmental Council
- Mt. Adams Resource Stewards
- Rural Voices for Conservation Coalition
- Oregon Watershed Enhancement Board
- Joint Fire Science Program
- Oregon Parks and Recreation

- National Park Service
- Portland General Electric
- Portland (Oregon) Metro
- National Oceanic and Atmospheric Administration
- Forest Health Initiative
- US Endowment for Forestry and Communities
- Hawaii Coral Reef Initiative
- Noyce Foundation
- Hawaii Dept. of Land and Natural Resources
- Hawaii Division of Aquatic Resources

2 PROGRAM DESCRIPTION

2.1 How many students are currently enrolled in the program? Describe the growth in enrollment since inception.

Since inception enrollment has risen steadily. Historically, the entering new graduate student cohort size in the Forest Science degree varied from 8-10 to as many as 20, so we would not be surprised to find variability in our annual enrollment once it reaches capacity.

Students in the program are roughly 50:50, female:male, and are primarily domestic students. We have been actively working to increase the number of international students. Ethnically our students are primarily white. In the last few years we have attempted to recruit more students from underrepresented groups, but this has proven to be a challenge. About half of our students are doctoral students and half are M.S. students and we have 0-2 students in our professional Master of Forestry degree each year.

| Fall Term: | | 2011 | 2012 | 2013 | 2014 | 2015 | Total | Yearly avg. |
|-------------------------|--------------------------------------|------|------|------|------|------|-------|-------------|
| Total number | of enrolled | 8 | 33 | 47 | 56 | 62 | 206 | 41.2 |
| Gender (no.) | Female | 6 | 20 | 23 | 28 | 35 | 112 | 22.4 |
| | Male | 2 | 13 | 24 | 28 | 27 | 94 | 18.8 |
| Citizenship | Domestic | 8 | 31 | 42 | 48 | 52 | 181 | 36.2 |
| (no.) | International | 0 | 2 | 5 | 8 | 10 | 25 | 5.0 |
| Oregon | Resident | 6 | 15 | 19 | 20 | 21 | 81 | 16.2 |
| Residency (no.) | Non-Resident | 2 | 18 | 28 | 36 | 41 | 125 | 25.0 |
| Race/Ethnicity (no.) | American Indian/Alaskan Native | 1 | 0 | 0 | 0 | 0 | 1 | 0.2 |

| | Asian | 1 | 1 | 1 | 1 | 1 | 5 | 1.0 |
|--------------|-------------------------------------|---|----|----|----|----|-----|------|
| | Black | 0 | 1 | 1 | 1 | 1 | 4 | 0.8 |
| | Declined to Respond / Missing | 0 | 2 | 4 | 6 | 5 | 17 | 3.4 |
| | Hispanic | 0 | 0 | 0 | 1 | 0 | 1 | 0.2 |
| | International | 0 | 2 | 5 | 8 | 10 | 25 | 5.0 |
| | Two or More Races | 0 | 1 | 2 | 2 | 2 | 7 | 1.4 |
| | White | 6 | 26 | 34 | 37 | 43 | 146 | 29.2 |
| Degree (no.) | Professional | 0 | 1* | 0 | 0 | 0 | 1 | 0.2 |
| | M.S. | 5 | 20 | 27 | 28 | 29 | 109 | 21.8 |
| | M. F. | 1 | 2 | 1 | 0 | 2 | 6 | 1.2 |
| | Ph.D. | 2 | 10 | 19 | 28 | 31 | 90 | 18.0 |

* We do not have a professional degree so it is not clear what this number (supplied by Graduate School) represents.

2.2 HAS ENROLLMENT MET/EXCEEDED/FALLEN SHORT OF EXPECTATIONS?

The following table lists the current enrollments and projected enrollments made in 2011. We are meeting the expectations established in 2011. We feel that enrollment has been exceptionally high these past few years and we would not be surprised by slightly lower enrollments in the future.

| | Number of Enrolled (projected) students in Fall Term | | | | | | | | | |
|--------|--|--------|---------|---------|---------|----|----|----|--|--|
| Degree | Avg. AY 05-10 | | | | | | | | | |
| MF | 1.6 | 1 (2) | 2 (1) | 1 (2) | 0 (1) | 2 | 0 | 1 | | |
| MS | 35.2 | 5 (22) | 20 (22) | 27 (24) | 28 (25) | 29 | 30 | 22 | | |
| PhD | 30.6 | 2 (26) | 10 (28) | 19 (30) | 28 (30) | 31 | 38 | 18 | | |

2.3 WERE ALL PROPOSED NEW COURSES DEVELOPED AND TAUGHT?

No new courses were proposed.

2.4 How many degrees have been awarded since the program's inception (and per year)? How does this number compare to the numbers projected in the program's original proposal?

Original projections of awarded degrees in the original Cat. I proposal were overly optimistic. We do not understand the rationale for estimating 7 Ph.D. degrees every year since inception of the program, as it is

not possible to graduate any Ph.D. students in the first 2 years of a new program. The decline in awarded degrees for M.S. students from 2011-2016 compared to the previous 5 years is likely due to multiple factors including the nationwide decline in research funding, a decline in the number of FES graduate faculty and an increase in the proportion of junior faculty. A review of faculty capacity in 2016-17 suggested that there is little room for grown in the overall number of graduate students.

| | | Actual (projected) number # of awarded Degrees | | | | | | | | |
|--------|-------|--|--------|---------------|--------|--------|------|------|------------------|----------------|
| | | | | Academic Year | | | | | | |
| | | Forest Science Avg. AY 05-10 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | Total Awarded | Yearly Avg. |
| Degree | M.S. | 12.6 | 0 (11) | 1 (11) | 9 (12) | 7 (12) | 11 | 14 | 42 | 7 |
| | M.F. | 1 | 2 (1) | 1 (2) | 1(1) | 0 (2) | 2 | 0 | 6 | 1 |
| | Ph.D. | 6.8 | 0 (7) | 0 (7) | 1(7) | 1 (8) | 1 | 6 | 9 | 1.5 |

2.5 ATTACH A STUDENT HANDBOOK

See Appendix II

3 Assessment

3.1 List the program's graduate learning outcomes (GLOs). Attach the GLO report for the last 4 years.

The GLO report is attached as Appendix IV.

The FES graduate program used the learning outcomes from the former Forest Science graduate program but reviewed them in the Fall of 2014. At that time they were revised slightly and a learning outcome for interdisciplinary learning was added and the teaching learning outcome was changed to an optional outcome for those students who identified it as important.

Since there are no required courses in this program, each student is required to write a plan that describes how they will meet customized learning outcomes in 7 general areas agreed to by our graduate faculty. The plan is developed by the student, in concert with their graduate committee, and filed with the program office by the 2nd or 3rd term of enrollment (depending on degree type). The LO plan is then used by the student's committee during prelim and defense exams to assess whether the student has met their specific learning outcomes. Details on learning outcomes are provided in Appendix II FES Graduate Handbook, page 24. The current learning objectives are:

• Disciplinary skills and knowledge

- Interdisciplinary collaborative problem solving
- Communication skills
- Critical thinking and critical awareness skills
- Research skills
- Research ethics and responsibilities
- Policy analysis/interpretation

3.2 ATTACH THE BIENNIAL EVALUATION REPORT.

See Appendix V.

3.3 DESCRIBE EFFORTS OR PLANS TO CONDUCT STUDENT AND/OR ALUMNI SURVEYS.

- All graduating students have an exit interview with the department head. Results are reviewed by the department head and shared as appropriate with faculty. A summary of the results is provided in Appendix VI.
- All graduating students are asked to update their physical address and email address in myOSU and to also provide them to the department as part of a final departmental check-out process. However, not all students do this.
- We do not have alumni surveys of our graduates, but plan to conduct at least one survey before the 10 year program review.

3.4 IS THE PROGRAM ACCREDITED? IF SO, BY WHAT BODY? IF NOT, ARE THERE PLANS TO SEEK ACCREDITATION?

This program is not accredited.

3.5 DESCRIBE HOW THE PROGRAM CURRICULUM STAYS CURRENT AND RESPONSIVE TO CHANGES IN THE FIELD.

- This program does not have a required curriculum and students in the FES program take courses from a wide variety of courses across OSU.
- There are two 'introductory' courses that are taken by many FES graduate students. FES 520 Posing Researchable Questions is taken in a graduate student's first term and is meant to jump-start the development of research questions and investigations. FES 521 Natural Resources Planning is a proposal writing course meant to support our program's requirement that all graduate students write a research proposal.
- The program relies on the faculty who teach courses to keep their courses current and responsive to changes in the various fields.
- In 2015 FES graduate faculty taught graduate courses in the College of Forestry under 5 course designators (FES, FE, FOR, SNR, MNR) for a total of 3046.4 graduate student credit hours and they taught 725.7 graduate student credit hours uner 14 course designators outside of the College.

4 RECRUITMENT AND ADMISSION

4.1 PROVIDE A SHORT NARRATIVE ON THE PROGRAM'S RECRUITMENT STRATEGIES – PAYING PARTICULAR ATTENTION TO THE STRATEGIES RELATED TO THE RECRUITMENT OF UNDERREPRESENTED MINORITIES.

Individual professors recruit graduate students in 3 ways. First, some professors disseminate advertisements for positions broadly, review applications that come directly to them as a result of the advertisement and select a graduate student through this competative process and ask the student to then apply to the FES program. Secondly, professors may also invite specific individuals they know to send application materials to the professor and the professor can select the student either as part of the competative process described above or through a non-competative process. Finally, professors review applications made directly to OSU and the program and may recruit a student from that source.

OSU's commitment to increasing enrollment of underrepresented minorities has spurred some faculty to actively recruit from these demographic groups. The FES department has a TA-ship that the department head has used to support underrepresented domestic minority students. Faculty are strongly encouraged by the department head and OSU to recruit a diverse set of students, and departmental and college P&T process recognizes the recruitment of students from underrepresented backgrounds. Some consideration for contributions to diversity and inclusion, including the recruitment of underrepresented groups, is used to determine departmental merit raises. In our graduate program and department, diversity is broadly defined to encompass diversity of experience and background, as well as ethnicity.

4.2 DESCRIBE ANY CHALLENGES OR CONCERNS THE PROGRAM FACULTY HAVE REGARDING RECRUITMENT.

THIS IS A DRAFT SECTION TO BE REVISED AFTER FACULTY DISCUSSION

Recruiting students from underrepresented groups is a challenge.

- i. Since most recruitment happens by individual professors, and faculty recruit from people within their (sometimes very broad) networks, if a professor doesn't actively seek out, employ or work with minority candidates, they may not be exposed to such candidates. The department has encouraged the recruitment of underrepresented students by rewarding such efforts through merit raises and in the P&T process.
- ii. The pool of potential applicants is small and competition for such students among universities is great. Therefore, even when we accept such candidates, they may choose to attend other universities that can offer better funding or stronger reputation.

Developing competitive funding packages for Ph.D. students is a challenge.

- i. Funding packages for all our students are developed individually by each major professor and packages usually include a variety of sources of funding. Some professors have 1-2 terms of tuition and stipend funding for students (via GRA) to support the course the professor teaches; but not all professors do. Some professors have grants that can partially support students. Some students come with their own funding via scholarships or fellowships (both domestic and international). Generally, professors pool resources from a number of sources but it is difficult to compile future resources with complete certainty. Thus, when recruiting high performing students it is unusual to be able to guarantee them future funding.
- ii. One important source of funding is the Provost's Distinguished Graduate Fellowship for Ph.D students. This award requires a plan for continued financial support beyond the award period through completion of the degree. The College of Forestry has, in the past, agreed to supply a 2nd year of funding if the Fellowship is awarded but they are clear that there is no guarantee that this will continue. These awards then allow a professor to offer only 3 years of funding. (It is unrealistic to expect a faculty member to guarantee a 4th year of funding when those funds are not yet in hand.)
- iii. Each year we lose about 1 top performing Ph.D. applicant to another universitywhich was able to provide a more attractive (usually larger with a formal guarantee of 5 years) funding package.

4.3 DESCRIBE THE PROGRAM'S ADMISSIONS CRITERIA AND PROCEDURE FOR APPLICATION REVIEW.

4.3.1 Admissions Criteria

Our program does not have admissions criteria requirements based on quantitative metrics. The following guidelines were determined by the faculty in 2011-2012 at the time of the Cat I proposal. In addition to meeting the Graduate School's admission requirements, successful applications to our program will show evidence of:

- A knowledge of mathematics and the scientific method sufficient for the specified area of focus
- Oral and written communication skills
- Motivation to succeed
- A maturity that will allow the independent work required of a graduate student

Additionally, successful applications to the following degrees will show evidence of the following abilities.

Master of Forestry

- Academic competency
- Intellectual curiosity and drive

Master of Science

- Advanced academic ability
- Intellectual curiosity and initiative
- Ability to think critically and solve unusual or complex problems
- Potential to master pertinent scientific concepts and methods

Doctor of Philosophy (Ph.D.)

- Academic excellence
- Intellectual curiosity and initiative

- Ability to think critically and solve unusual or complex problems
- Advanced knowledge of pertinent scientific concepts and methods
- Experience in research, including planning, execution, analysis, interpretation, and writing
- Depth and breadth, both in research experience and course work
- Intellectual and emotional maturity

These characteristics are described in Appendix II - FES Graduate Handbook on page 7

4.3.2 Application Review Process

Applications are sent to the FES admissions committee for evaluation only when a professor formally commits to advising the students. Thus, potential applicants are directed to initiate conversations with prospective advisors about available positions (i.e., funding availability) and whether or not the student's area of interest matches that of the potential advisor prior to submitting an application.

In an alternative pathway, a professor is also able to review all applicants to the program (via our application webpage) and to contact students to begin the admission process. This latter approach was more common in the past when funding was more available. Currently this approach is primarily used to identify some international applicants. The graduate program coordinator also contacts faculty when an application is received in the faculty member's area of expertise.

Once an applicant secures a commitment from an advisor, the potential advisor submits a written review/evaluation of the application, citing evidence for the program's admission criterial (See Appendix II FES Graduate Student Handbook page 7) and identifying a funding plan for the student and any deficiencies in the student's academic background that need to be addressed prior to admission or during their program of study.

The student's application package and the written review are posted on the program's internal application website and 2 members of the admissions committee review the material and identify any other areas of concern. Typically, there are none. The program director reviews the application, the written review and the admissions committee comments and usually the applicant is accepted. In the event that the admissions committee or the program director identifies an issue, the program director discusses the concern with the potential advisor. In many cases, situations have been resolved through requesting remedial courses or by making the advisor aware of challenges the student will face (e.g. language issues, lack background in a critical area) and the advisor planning to accommodate the need. In 2 cases, the application did not contain enough content to demonstrate that the applicant would be able to successfully complete a thesis. In these cases, the program director asked the potential major professor to request additional information about past experiences and writing samples. When the applicant did not provide the requested information, the program did not accept the student.

5 FINANCIAL

5.1 DESCRIBE THE PROGRAM'S REVENUES, EXPENSES, AND ANY DEVIATIONS FROM THE ORIGINAL PROPOSAL.

The budget for the Cat I proposal identified only an additional one-time \$350 expense for supplies to support the new program. Currently, expenses for the program include approximately 0.15 FTE salary for the program director (who is a tenured faculty member), and 1.0 FTE for the program coordinator. Other recurring expenses include funds for the new student orientation each fall (supplied by College of Forestry) and funds to support printing of new student materials (handbook, handouts on timelines etc.).

Current annual expenses

| Program director (0.15 FTE) | \$17,493 |
|---|-------------------|
| Administrative Program Assistant: Program Coordinator (1.0 FTE) | \$59 <i>,</i> 267 |
| New student orientation (Fall term, paid by CoF) | \$ 1,000 |
| Recurring office expenses (annually) | \$ 350 |
| INCLUDE TUITION WE PAY FOR STUDENTS | |
| Total | \$78,110 |

| Funding Source | Stipend | Tuition | Health Insurance | # of FES students |
|-----------------------------|--------------|---------------------------|------------------|-------------------|
| E&G | \$ 86,238.32 | \$ 94,422.16 | \$25,664.77 | 20 |
| Forest Research Lab | \$119,667.84 | \$136,342.35 | \$39,229.08 | 13 |
| ECAMPUS FUNDS | \$ 52,198.74 | \$ 59,986.90 | \$ 12,893.93 | 7 |
| OSU COST SHARE ¹ | | \$178,395.00 | | |
| Total OSU | \$258,104.90 | \$469,146.41 | \$77,787.78 | 40 |
| | | | | |
| GRANTS | \$110,491.58 | \$63,293.96 | \$21,034.97 | 10 |
| Joint Venture Agreements | \$163,611.59 | (cost share see above) | \$41,477.76 | 15 |
| Total Research | \$274,103.17 | \$63,293.96 | \$62,512.73 | 25 |

Sources of Graduate Student Support (FY2017)

¹OSU pays tution on Joint Venture Agreements as Cost Share to the JVA

5.2 SUMMARIZE THE MEANS WITH WHICH STUDENTS IN THE PROGRAM FUND THEIR EDUCATION (GTA, GRA, FELLOWSHIPS, SCHOLARSHIPS, OR SELF-PAY).

| | Academic | | | Summer | Graduate | Graduate | OSU Graduate | | Scholarship/ | Self |
|---------|-----------|----------------|----------|---------|-----------|-----------|-----------------|----------|--------------|-----------|
| Degree | Year | Term | | Student | Research | Teaching | Fellow | External | • • | funded or |
| | | | ENROLLED | Wage | Assistant | Assistant | Appt. | Source | for tution | unknown |
| Masters | 2014-2015 | Summer | 13.0 | 0.0 | 11.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.0 |
| | | F W Sp average | 30.7 | 0.0 | 16.7 | 8.0 | 2.7 | 1.0 | 0.0 | 2.3 |
| | 2015-2016 | Summer | 8.0 | 6.0 | 2.0 | 1.0 | 0.0 | 1.0 | 0.0 | 4.0 |
| | | F W Sp average | 29.3 | 0.0 | 14.0 | 8.7 | 1.0 | 2.0 | 1.3 | 2.3 |
| | 2016-2017 | Summer | 7.0 | 4.0 | 4.0 | 0.0 | 0.0 | 1.0 | 0.0 | 2.0 |
| | | F W Sp average | 29.0 | 0.0 | 15.3 | 7.0 | 0.0 | 4.0 | 1.0 | 1.7 |
| Ph.D | 2014-2015 | Summer | 15.0 | 0.0 | 8.0 | 0.0 | 3.0 | 4.0 | 0.0 | 0.0 |
| | | F W Sp average | 29.0 | 0.0 | 10.3 | 6.0 | 5.0 | 4.0 | 1.0 | 2.7 |
| | 2015-2016 | Summer | 15.0 | 3.0 | 5.0 | 0.0 | 4.0 | 3.0 | 0.0 | 3.0 |
| | | F W Sp average | 30.7 | 0.0 | 12.7 | 5.0 | 4.7 | 4.0 | 0.0 | 4.3 |
| | 2016-2017 | Summer | 10.0 | 10.0 | 1.0 | 0.0 | 2.0 | 3.0 | 0.0 | 4.0 |
| | | F W Sp average | 34.3 | 0.0 | 13.0 | 5.3 | 7.7 | 4.0 | 0.3 | 4.0 |

Number of Graduate Students receiving financial support by degree, academic year, term and support type.

SSWA: Summer Student Wage Appointment. Only includes stipend for students who are NOT enrolled. GRA/GTA: Refers to duties of graduate assistant appointment rather than actual designation, since most CoF support is via GRA. Includes appointments administered by other departments. Includes tuition waiver and stipend support.

GFA: OSU Graduate Fellow Appointment. Includes tuition waiver.

EXT: Funding from external source that provides at least enough to cover tuition. Does not include OSU Graduate Fellow Appointment, and is not routed or tracked by OSU.

SCHOL: Scholarship or fellowship funds that cover at least the cost of tuition.

SELF: Funding provided either by student or unknown source.

6 FACULTY RESOURCES

6.1 LIST PROGRAM FACULTY BY NAME, FTE, RANK/TITLE, AND EXPERTISE.

There are 89 members of the current FES Graduate Faculty. Forty-one members (37%) do not regularly direct MS or Ph.D. research but were added to serve on only one committee or to teach specialized courses. Three of these 41 faculty members are currently Dean and Associate Deans. There are 48 members who regularly advise graduate students but 13 of those will be retired as of AY2018 and are unlikely to direct graduate students in the future. Therefore, 35 faculty typically serve on multiple committee or advise more than one graduate student.

| | Name | Position | Department or Agency other than FES | FTE | Academic Discipline |
|---|-------------------------|-----------------------------------|---|---------|---|
| | Montgomery, Claire | Adjunct Professor | FERM | RETIRED | Forest Economics |
| | Tynon, Joanne | Associate Professor | | RETIRED | Social Science |
| | Johnson, K. Norman | Distinguished Professor | | RETIRED | Silviculture, policy |
| | Ries, Paul | Instructor | | RETIRED | Urban forestry |
| | Bliss, John | Professor | | RETIRED | Forest Social Science |
| | Doescher, Paul | Professor | | RETIRED | Rangeland ecology |
| | Harmon, Mark | Professor | | RETIRED | Forest Ecology |
| | Hibbs, David | Professor | | RETIRED | Forest Ecology |
| | Jensen, Edward | Professor | | RETIRED | Forest Education |
| | Lachenbruch, Barbara | Professor | | RETIRED | Tree physiology |
| | Mc Comb, Brenda | Professor Emeritus | | RETIRED | Landscape ecology, silviculture, wildlife ecology |
| | Shelby, Byron | Professor | | RETIRED | Social Science |
| | Shindler, Bruce | Professor | | RETIRED | Social Science |
| 1 | Shaw, David | Adjunct Associate Professor | FERM | | Forest health, forest pathology, forest entomology, forest ecology |
| 2 | Bailey, John | Adjunct Professor | FERM | | Fire ecology, forest health, silviculture |

6.1.1 2017-2018 FES Graduate Faculty members who regularly direct graduate students

| | Maguire, | Adjunct | | Biometrics, |
|----|---------------------|----------------|--------|-------------------|
| 3 | Douglas | Professor | FERM | silviculture |
| 5 | Douglas | FIDIESSOI | FLNIVI | silviculture |
| | | | | Human |
| | | | | dimensions, |
| | | | | outdoor |
| | | | | recreation, |
| | D Antonio, | Assistant | | recreation |
| 4 | Ashley | Professor | | |
| 4 | Ashey | FIDIESSOI | | ecology |
| | | | | Extension, |
| | | | | natural |
| | | Assistant | | resources, social |
| 5 | Davis, Emily Jane | Professor | | science |
| 3 | Barris, Ennry Sance | 110103301 | | solentee |
| | | | | Community |
| | | | | forestry, |
| | | | | international |
| | | Assistant | | forestry, social |
| 6 | Hajjar, Reem | Professor | | science |
| | | | | |
| | | | | Conservation |
| | | | | biology, fire |
| | | | | ecology, |
| | | Assistant | | landscape |
| 7 | Krawchuk, Meg | Professor | | ecology |
| | | | | Casial asian as |
| | | | | Social science, |
| | | | | tourism, rural |
| | | Assistant | | household |
| 8 | Munanura, lan | Professor | | wellbeing |
| | | | | Aquatic |
| | | Assistant | | ecosystems, fish |
| 9 | Warren, Dana | Professor | | ecology |
| | | | | |
| | | | | Conservation |
| | | | | biology, |
| | | Assistant | | disturbance |
| | | Professor Sr. | | ecology, wildlife |
| 10 | Rivers, James | Research | | ecology |
| | | | | |
| | | Assistant | | |
| | | Professor, Sr. | | Forest ecology, |
| 11 | Schulze, Mark | Research | | tropical forestry |
| | | | | Aquatic |
| | | | | ecosystems, |
| | | Associate | | quantitative |
| 12 | Ganio, Lisa | Professor | | |
| | | | | ecology, |

| | | | | statistics, study design |
|----|-----------------------------------|---------------------------------------|--------------------|---|
| 13 | Howe, Glenn | Associate Professor | | Forest genetics |
| 14 | Still, Christopher | Associate Professor | | Biogeography, ecophysiology, ecosystem ecology |
| 15 | Withrow- Robinson, Bradford | Associate Professor - Extension | | Forest management education, conservation restoration |
| 16 | Lindberg, Kreg | Associate Professor, Cascades | Cascades Campus | Natural resources, social science |
| 17 | Reuter, Ronald | Associate Professor, Cascades | Cascades Campus | Landscape ecology, restoration ecology, soil science |
| 18 | Grotta, Amy | Associate Professor- Extension | | Extension, forest policy, natural resources |
| 19 | Strauss, Steven | Distinguished Professor | | Forest genetics, biotechnology |
| 20 | Betts, Matthew | Professor | | Landscape ecology, wildlife ecology |
| 21 | Hall, Troy | Professor | | Environmental communication, natural resources, outdoor recreation |
| 22 | Law, Beverly | Professor | | Global change biology, terrestrial systems science |

| 23 | Needham, Mark | Professor | | | outdoor recreation, social science, tourism |
|----|-----------------------|-------------------|------|-----|---|
| 24 | Nelson, Michael | Professor | | | Environmental ethics, philosophy |
| 25 | Puettmann, Klaus | Professor | | | Silviculture, forest ecology |
| 26 | Ripple, William | Professor | | .75 | Landscape ecology, wildlife ecology |
| 27 | Ross, Darrell | Professor | | | Forest Entomology |
| 28 | Bishaw, Badege | Senior Instructor | | | Agroforestry, international forestry, natural resources, restoration ecology |
| 29 | Olsen, Christine | Instructor | | | Natural Resources, social science |
| 30 | Cohen, Warren | Courtesy | USFS | | Remote sensing |
| 31 | Hagar, Joan | Courtesy | USGS | | Ecosystem ecology, forest ecology, natural resources, wildlife ecology |
| 32 | Meinzer, Frederick | Courtesy | USFS | | Ecophysiology, forest ecology |
| 33 | Smith, Jane | Courtesy | | | Forest mycology |
| 34 | Spies, Thomas | Courtesy | | | Forest ecology, landscape ecology |
| 35 | Taylor II, Jimmy | Courtesy | | | Wildlife management |

| | Name | Rank | Department or Agency other than FES | FTE | Expertise |
|----|-------------------------|--|--|------------------|----------------------------------|
| 1 | Johnson, James | Professor and Associate Dean | | DEAN'S OFFICE | Extension |
| 2 | Rosenberger, Randall | Professor and Associate Dean | | DEAN'S OFFICE | Economics |
| 3 | Maness, Thomas | Professor and Dean | | DEAN'S OFFICE | Silviculture |
| 4 | Myrold, David | Adjunct Professor | Crop and Soil Science | | Soil microbiology, forest soils |
| 5 | Luoma, Daniel | Assistant Professor Sr. Research | | | Forest mycology |
| 6 | Creighton, Janean | Associate Professor Extension | | | Extension Social Science |
| 7 | Abrams, Jesse | Courtesy | | | Social Science |
| 8 | Bell, David | Courtesy | USFS | | Vegetation and Landscape Ecology |
| 9 | Benda, Lee | Courtesy | | | |
| 10 | Brooks, Renee | Courtesy | EPA | | Plant phsiology |
| 11 | Bruskotter, Jeremy | Courtesy | | | |
| 12 | Charnley, Susan | Courtesy | | | Social Science |
| 13 | Fettig, Christopher | Courtesy | | | |
| 14 | Fischer, Richard | Courtesy | | | |
| 15 | Gray, Andrew | Courtesy | USFS | | Forest Inventory and Analysis |

6.1.2 2017-2018 FES Graduate Faculty members who do not regularly direct graduate students

| 16 | Grimm- Greenblatt, Kerry | Courtesy | | Social Science |
|----|--------------------------------|----------|------|-------------------------|
| 17 | Jacobs, Douglass | Courtesy | | Silviculture |
| 18 | Knudby, Anders | Courtesy | | |
| 19 | Landres, Peter | Courtesy | | |
| 20 | Lertzman, Kenneth | Courtesy | | |
| 21 | Lowman, Margaret | Courtesy | | |
| 22 | Lyapustin, Alexei | Courtesy | | |
| 23 | Metcalf, Elizabeth | Courtesy | | |
| 24 | Munson, Steve (Allen) | Courtesy | | |
| 25 | O Connell, Kari | Courtesy | | Environmental education |
| 26 | Orr, Matt | Courtesy | | |
| 27 | Pascual, Dolors | Courtesy | | |
| 28 | Perakis, Steven | Courtesy | USGS | Biogeochemistry |
| 29 | Phalan, Ben | Courtesy | | Conservation Biology |
| 30 | Prendeville, Holly | Courtesy | | |
| 31 | Rodewald, Amanda | Courtesy | | |
| 32 | Ryder, Thomas | Courtesy | | |
| 33 | Sniezko, Richard | Courtesy | USFS | Forest Genetics |
| 34 | Vucetich, John | Courtesy | | Ecology |
| 35 | Wallin, Kimberly | Courtesy | | Forest Pathology |

| 36 | Wondzell, Steven | Courtesy | USFS | Soil Science |
|----|---------------------|---|------|-----------------------------------|
| 37 | Woodruff, David | Courtesy | USFS | Tree physiology |
| 38 | Waring, Richard | Emeritus Professor | | Tree physiology, plant ecology |
| 39 | Stemper, David | Instructor | | Forestry, Environmental Education |
| 40 | Brown, Ryan | Rec. Manager, OSU Research Forest | | Recreation |
| 41 | Klocko, Amy | Research Associate | | Forest Genetics |

7 STUDENT SUCCESS

7.1 ARE THERE PROFESSIONAL LICENSURE EXAMS FOR THIS DEGREE? IF SO, HOW HAVE STUDENTS PERFORMED (E.G., HOW MANY STUDENTS TOOK THE EXAM; WHAT PERCENTAGE PASSED?)

There are no professional licensure exams

7.2 IF AVAILABLE, DESCRIBE EMPLOYMENT AND/OR FURTHER PROFESSIONAL OR GRADUATE LEVEL ACTIVITIES OF PROGRAM COMPLETERS.

Faculty members were asked, via email, to identify the types of employment or other pursuits that their graduate students pursued after graduation. The following bullets summarize the responses from 9 faculty members.

- Biological technician for large city
- Summer field technician
- Data analyst for risk assessment company (wildfire risk)
- Intern with Statistics Canada
- Postdocs (other labs, Smithsonian)
- Parks Canada

- EPA,
- US Forest Service,
- US Fish and Wildlife Service
- National Park Service
- US Geological Survey
- Oregon Department of Fish and Wildlife
- Oregon Department of Forestry

- World Wildlife Fund
- The Nature Conservancy
- other Land Trusts

• Professor, post-doc and other research support academic positions at other academic institutions

7.3 DESCRIBE THE PROCESS USED BY THE MAJOR PROFESSOR TO EVALUATE WHETHER A STUDENT IS MAKING SATISFACTORY PROGRESS IN THE DEGREE PROGRAM.

7.3.1 Programmatic requirements demonstrating academic progress in addition to preliminary exam and final defense

- Students are required to form their graduate committee, file their Program of Study form, and their individualized learning outcomes plan with the department office by their 2nd (MS) or 3rd (PhD) term of enrollment. Students who are not full-time students are allowed to request exceptions.
- Students must file their written research proposal with the department office by the end of their 3rd (MS) or 5th (PhD) term of enrollment. Students who are not full-time students are allowed to request exceptions.
- Every student is required to conduct an annual assessment of academic progress with their major professor and submit the assessment by June 30 every year. See the FES Graduate Handbook page 51 for details.
- The Graduate Program coordinator reminds students and follows up with them if they do not submit materials on time. Students who have not met milestones may be excluded from consideration for scholarships or other opportunities.

If the program is notified that a student's GPA is below the accepted minimum, the Program Director meets with the major professor to alert them and asks that the advisor and student provide a plan to address the problem.

7.3.2 Individual major professor strategies to evaluate academic progress

Faculty members were asked, via email, to identify strategies to evaluate progress. Nine faculty responded: two Assistant Professors, 2 Associate Professors, 4 full Professors and one Courtesy Professor. In all cases, regular meetings with student were used, along with monthly, weekly or bi-weekly deadlines for specific tasks. Everyone noted that regular communication with the student about expectations for deadlines (whether for field work, thesis drafts or coursework) was necessary. One respondent noted that assessment must be continuous and on-going, not a once a year event.

8 DIVERSITY

8.1 DESCRIBE HOW THE PROGRAM HAS CONTRIBUTED TO EQUITY, INCLUSION, AND DIVERSITY AT OSU (RELATED TO CURRICULUM, RECRUITMENT OF FACULTY AND STUDENTS, PROFESSIONAL DEVELOPMENT, AND ADVISING).

The faculty and students in the FES graduate program contribute significantly to equity, inclusion and diversity activities in the College of Forestry. Five new tenure-track faculty have been hired in the past 4 years, and attention to how the applicants could contribute to equity and inclusion was explicitly addressed in the hiring and evaluation process. Two FES graduate faculty members, and the department head, have attended the ADVANCE 2-week training on diversity and inclusion. Graduate faculty from the FES program, and other FES researchers were a majority on the College of Forestry's committee that drafted the Diversity, Equity and Inclusion Plan for the College that was adopted in 2017. Students from the FES Graduate program spearheaded the College of Forestry's Diverse Perspectives in Forestry group. This group was very active in 2016-17 and brought speakers and trainings to the College. The FES Department Head has rewarded faculty for this participation by tying some aspects of merit raises to activities that support diversity and equity.

9 OTHER INFORMATION - WHAT ELSE WOULD YOU LIKE TO TELL US ABOUT YOUR PROGRAM THAT WAS NOT ADDRESSED IN THIS REVIEW?

9.1 FACULTY AND GRADUATE STUDENT REFLECTION

The 5-year summary of the FES Grad Program was sent to all faculty and graduate students for their review in October 2017. Faculty and students were invited to share comments privately via email or meetings or in open sessions with the graduate program director. The Graduate Program director and the Graduate Program Coordinator held an open session for FES Graduate students on 10/19/2017 that was attended by three PhD students. A similar session was held on 10/31/2017 for faculty that was attended by 8 faculty members.

A detailed list of comments from each session is provided below the short synthesis.

Synthesis of the sessions:

- The flexibility in the FES graduate program (no prescribed coursework) is appreciated by faculty and students, but some feel that having a few more required courses could facilitate bonding and address our learning outcome of interdisciplinary research.
- Students might appreciate more science-based opportunities for interactions across lab groups.
- Finding a faculty member to take on teaching an important but new grad-level course (or more than one faculty member) will require negotiation about teaching loads and other duties.

- Pre-tenure faculty felt that they had to 'grab' grad students as quickly as possible which hindered broader recruitment (e.g. applicants from underrepresented groups).
- There aren't sources of multiple-year funding that motivate faculty to recruit from pools of applicants outside of those pools they normally come in contact with.
- Any grad-program-wide strategy might require reducing resources that currently come directly to faculty members.

9.2 GRAD STUDENT SESSION

The Graduate Program director and the Graduate Program Coordinator held an open session for FES Graduate students. Three PhD students attended the session. The comments that were provided are listed below.

- The fact that there are no required courses in the FES curriculum contributes to a lack of cohesion among students
- There is no clear skillset, knowledge base, or set of credentials associated with an advanced degree in FES. Some students would like a stronger sense of departmental identity
- There is too much emphasis on taking courses that focused solely on the research to satisfy the grant
- Perhaps course on complex adaptive systems is a good model for core FES graduate coursework.
- (Interdisciplinary) science communication is a skill that everyone needs now.
- It would be nice if there was a way to foster scientific collaboration among students from different lab groups
- Would like more training/mentoring/modelling of how to do cross-disciplinary/integrative work
- More social events are not necessarily needed since shy students don't attend. It would be better to have events focused on science/research and it's easier for students from varying backgrounds to connect over specific tasks or topics than socially.
- FES has some great resources:
 - The FES handbook
 - Computing group and the helpdesk
 - Statistical Consulting Ariel is great
 - Troy is a great department head

9.3 FES GRADUATE FACULTY SESSION

An open meeting for faculty to discuss challenges and opportunities for the FES Graduate program was held on 10/31/17. Eight faculty attended. There were 3 items that were discussed:

1. Should our program have some courses that all students in FES are required to take and that are not courses on techniques?

2. What is needed to teach a graduate course to address our learning objective of interdisciplinary research?

3. Since our students are 'recruited' individually by individual faculty members, what practices can we implement to support faculty who want to recruit students from underrepresented groups (URGs)

A summary of the comments around these 3 topics is below.

1. Should our program have some courses that all students in FES are required to take and that are not courses on techniques?

- What distinguishes our graduates from graduates in other similar programs such as Fish and Wildlife, Botany, Environmental Science?
- Should there be a common 'core' of disciplinary (as opposed to technical) coursework that all our students take?
- Should graduates from our program (which resides in a College of Forestry) be known for having a
 particular set of skills or disciplinary knowledge?

The following ideas/comments were noted:

- Most accepted students in our program seem to be primarily attracted by the specific research of individual professors and not by the broader objective of the program
- Some applicants and students are attracted by the broad objective of interdisciplinary problem solving but once here they find that we don't have courses that specifically support that broader goal
- Some course instructors find it difficult to teach their subject matter when they can't assume minimum background of students in a subject area.
- Shouldn't we have a course directed at interdisciplinary problem solving?

2. What is needed to teach a graduate course to address our learning objective of interdisciplinary problem solving?

- In 2015 the FES faculty developed a pilot graduate level course on interdisciplinary problem solving but there were no faculty available to teach it at the time.
- This pilot course was to be taught by 2 faculty, be focused on solving a practical, real world problem and use the team of students in the course to do that.
- Some faculty objected to the pilot graduate course because it was time intensive and could take away from students' research.
- A course format, similar to what is being used for the Ecology and Conservation Biology seminar series that Matt Betts currently coordinates, could be a good format for an introduction to interdisciplinary problem solving course for our students. That is, a guest speaker/topic each week with a paper to read and discuss and a discussion period with the guest speaker might be less work than the originally proposed course.
- Funding to support such a course is needed. This could be an instructor to teach at the UG level to free up faculty to teach the ID problem solving course. College and department have made it clear that there are no additional resources.
- Could we have a course that supports the NR upper division capstone requirement and supports the FES grad program?
- Social scientists in FES noted the lack of applicable coursework in social science anywhere at OSU that meets their needs. But they also lack time/resources for further course development.

3. Since our students are 'recruited' individually by individual faculty members, what practices can we implement to support faculty who want to recruit students from underrepresented groups (URGs)

- Pretenure faculty need to 'grab' the most qualified student at the right time in order to have students quickly and meet grant needs. Some pretenure faculty felt that they didn't have time to actively recruit from URGs.
- While there are some small funding sources (tuition for a few quarters) to incentive recruiting
 students from URGs, there aren't large awards (such as the Provost's Fellowship) that will provide
 tuition, and stipend. The College and OSU have small awards (e.g. tuition only funds) that have to
 be packaged with much larger chunks of funding (stipend, research costs, fees). The catch is that if a
 faculty member has such a large chunk of funding then they don't need the small award so
 sometimes the small chunks of funding go unused.
- In order to recruit effectively, faculty need to put together awards for 2 years for MS or 5 years for PhD. We have lost applicants from URGs because we couldn't guarantee funding for 5 years. We'd like a program like the Provost's award where OSU could offer one year of funding, the College could match it and then the faculty member would only need to find 3 additional years of funding...
- Suggest that the department find a way to use some TAships (e.g. online courses) to support students from URGs. We recognize that this may be unpopular since the instructor of the course gets to use the TA as they wish and they are currently used to support instructor's students for 1 or 2 terms each year.

10 APPENDICES

- 10.1.1 Appendix I: Cat I Proposal for the renaming of Forest Science to Forest Ecosystems and Society
- **10.1.2 Appendix II: FES Graduate Program Handbook**
- **10.1.3 Appendix III: Graduate Faculty in 2011-12**
- **10.1.4 Appendix IV: Graduate Learning Outcome Report for AY2016**
- **10.1.5** Appendix V: Biennial Report Evaluations from the Graduate School
- **10.1.6 Appendix VI: Summary of FES Graduate Exit Interviews 2014-2017**

Appendix I.

Category I Proposal (expedited) for Revision of the Forest Science Graduate Program FES Category 1 Proposal: Revision of the Forest Science Graduate Program

Name Change: Forest Ecosystems and Society Graduate Program

The changed name reflects the departmental composition and expanded potential that resulted from reorganization of departments in the College of Forestry. The department name is Forest Ecosystems and Society (FES).

- 1. Program description
 - a. CIP: 030599?
 - b. <u>Overview:</u> (Brief overview (1-2 paragraphs) of the proposed program, including its disciplinary foundations and connections; program objectives; programmatic focus; degree, certificate, minor, and concentrations offered). The recent reorganization of departmental structure in the College of Forestry made 2 departments where there were 3 and significantly shuffled disciplinary composition. This shuffling has created great confusion among current graduate students about administrative home, advising, and financial support. At the same time, this reshuffling has created a great opportunity for new disciplinary syntheses. The new Department of Forest Ecosystems of Society is made up of the biophysical science faculty of the old Forest Science Department and the majority of the social science faculty of the old Forest Resources Department. This proposal is about capturing the opportunity and resolving the confusion by revising the graduate program to be more departmentally-based. Our mechanism is the revision and renaming of the old Forest Science Graduate Program into the new Forest Ecosystem and Society Graduate Program.

This graduate program combines a strong social science component (faculty from the old Forest Resources Department) to the biological and ecological strengths of the existing Forest Science Graduate Program and includes a focus on the interface of social science and ecology. Thus, the revised program will provide specific disciplinary opportunities in both ecological and social sciences in the natural resource setting but also strives to develop interdisciplinary skills and knowledge. *Our program objective is to develop interdisciplinary thinkers, highly capable scientists, and natural resource leaders who are prepared to solve complex socio-ecological problems.* The students will be able to identify and contribute to collaborative solutions in ecology and natural resources-related social science. Student learning will occur in the classroom via teaching, through student research opportunities and through complementary outreach activities such as student teaching, seminars and workshops.

The areas of concentration in the program will be 1) Social science, policy, and natural resources; 2) Sustainable recreation and tourism; 3) Integrated Social and Ecological Systems; 4) Soil-Plant-Atmosphere Continuum, 5) Genetics and Physiology, 6) Forest, Wildlife and Landscape Ecology, and 7) Science of Conservation, Restoration and Sustainable Management. Example courses for these areas of concentration are listed in the appendix.

The Department enjoys a strong working relationship with the <u>USDA Forest Service Pacific</u> <u>Northwest Research Station</u>, <u>USGS Forest and Rangeland Ecosystem Science Center</u>, and the <u>U.S.</u> <u>Environmental Protection Agency</u> Laboratory, all located near Richardson Hall. The activities of these and other departments on campus combine to form the largest concentration of forest ecosystems and social science research in North America.

c. (*Course of study – proposed curriculum, including course numbers, titles, and credit hours.*) The curriculum is flexible in order to allow for a broad range of interdisciplinary foci and therefore there is no fixed curriculum. Masters and some PhD students are strongly encouraged to take FS 520 and FS 521 (Posing and Developing Research Questions, 3 credits; Natural Resources Research Planning, 2 credits). The program has skill-based competency requirements in communication, quantitative analysis, and critical thinking as well as knowledge-based competencies in ecology, social science and natural resource policy that are assessed by the major professor and the student's graduate committee.

The graduate degrees available under the current Forest Science Graduate Program would be continued under the new FES Graduate program: Master of Forestry, Master of Science, and Doctor of Philosophy.

- d. (*Manner in which the program will be delivered, including program location (if offered outside of the main campus), course scheduling, and the use of technology (for both on-campus and off-campus delivery).*) This proposal does not suggest any change from the current modes and locations of program delivery.
- e. (*Ways in which the program will seek to assure quality, access and diversity*) Application and admittance requirements for this program are consistent with the approaches that have been used in the Forest Resources and Forest Science Graduate degree programs for many years. We recruit students primarily through our web presence, and also advertise nationally and internationally when we have a graduate research assistantship available. Teaching assistantships as available are distributed to graduate students so that all have an opportunity to apply for available positions; selection of TAs is made by the instructor. We have been very successful in maintaining a gender balance among graduate students in both programs with 39 women, 34 men and 4 ethnic minorities representing our graduate student body in the 2008-09 academic year. We annually assess student performance using a standardized form signed by the student, the adviser and the department head that ensures that adequate progress is being made in each student's program. Finally, an exit interview is conducted by the department head with all graduate student student student experiences in the department.

Each faculty member is asked to indicate how they are contributing to enhancing diversity in the department during their annual PROF review. We are working closely with the College's Diversity and Social Justice Committee to conduct focus group sessions with students in each of the OSU cultural centers to have information that will guide changes in making our department a more welcoming environment for a diverse student body. We embrace and support diversity in all of its forms and recently received a departmental award from the Rainbow Coalition in recognition of our support for the LGBTQQIA community.

f. (*Anticipated fall-term headcount and FTE enrollment over each of the next 5 years*) While we have normal uncertainties about projected enrollment, we are optimistic that the linking of social and ecological science will build upon our historical student base and attract an emerging population of

students seeking training in collaborative, interdisciplinary science. We currently have 73 graduate students in the FES Department including students in the Forest Science (FS, 40 students), Forest Resources (FR, 28 students), Applied Economics (2 students), and Environmental Sciences (3 students) graduate programs. Since most are FR and FS students, Table 1 represents what we feel to be a conservative estimate of likely enrollment in the FES graduate program.

Table 1. Expected fall-term total enrollment in the FES graduate program for each of the next 5 years

| Degree | Mean AY 05-10 | AY10-11 | AY11-12 | AY12-13 | AY13-14 | AY14-15 |
|--------|---------------|---------|---------|---------|---------|---------|
| MF | 1.6 | 1 | 2 | 1 | 2 | 1 |
| MS | 35.2 | 20 | 22 | 22 | 24 | 25 |
| PhD | 30.6 | 25 | 26 | 28 | 30 | 30 |

g. (Expected degrees/certificates produced over the next 5 years)

Table 2

. Expected degrees awarded in each of the next 5 years in each degree program

| Degree | Mean AY 05-10 | AY10-11 | AY11-12 | AY12-13 | AY13-14 | AY14-15 |
|--------|---------------|---------|---------|---------|---------|---------|
| MF | 1 | 1 | 1 | 2 | 1 | 2 |
| MS | 12.6 | 10 | 11 | 11 | 12 | 12 |
| PhD | 6.8 | 7 | 7 | 7 | 7 | 8 |

h. (Characteristics of students served (resident/non-resident/international; traditional/nontraditional; full/part-time)) Table 3 is a snapshot of FES graduate student enrollment in spring term, 2010. Included are students in the current Forest Science Program and those students in the current Forest Resources Program who are advised by faculty in the Forest Ecosystems and Society department. Most of our graduate students are non-residents and many receive either a partial or full graduate research assistantship or teaching assistantship. The number of non-traditional, mid-career students is expected to increase somewhat as the demographics of the workforce changes, but most students will be full-time traditional students simply because of the research support that is available to students through research grants. Nonetheless we always have students with families who are balancing graduate school responsibilities with other priorities. All of these students are full-time students.

Table 3. Spring term, 2010 enrollment in the Forest Science Graduate Program.

| | Non- | | | | |
|----------|----------|---------------|----------|---------|-------|
| Resident | Resident | International | Minority | Over 25 | Total |
| 15 | 23 | 6 | 2 | 40 | 44 |

i. (*Adequacy and quality of faculty delivering program*) FES has a cadre of faculty who are internationally recognized as among the best in the world in ecosystem and social sciences. Their research productivity is outstanding. Total new grants and contracts received in FY 2008-09 was

over \$6.9 million as of June 2009. This high level of research support provides an annual stream of funding to support graduate students working on high quality research projects. The average number of graduate student advisees per regular on-campus faculty member is currently 2.5. The tenure/tenure-track (T/TT) professorial faculty produced 119 research publications and 3 text books during the year, and faculty in the department led over 170 workshops and outreach presentations. The faculty publish regularly in top-tier national and international journals. Our T/TT faculty is dominated by tenured individuals. FES department faculty members are excellent instructors. Departmental SET scores for the class (Q1) averaged 4.77 and for the instructor (Q2) averaged 5.11 in 2008-09 (max score is 6.0).

j. (*Faculty resources – full-time, part-time, adjunct*) See Tables 4 and 5. In addition to our tenure/ tenure track faculty lines, a large number of our courtesy, adjunct and affiliate faculty direct graduate students or serve on graduate committees. In addition, our Faculty Research Assistants and Associates provide important research support for our research faculty and often work side by side with graduate students in the lab or in the field.

| | Total | Female | Male |
|---------------------------------|------------------|--------|------|
| Professorial faculty | 33 | 10 | 23 |
| Fixed Term instructors | 8 | 3 | 5 |
| Courtesy Faculty | 33 | 7 | 26 |
| Adjunct Faculty | 16 | 8 | 8 |
| Affiliate Faculty | 35 | 7 | 28 |
| Faculty Research Assistants | | | |
| & Research Associates | 51 | 14 | 37 |
| Professional faculty | 14 | 5 | 9 |
| Classified Staff | 9 | 9 | 0 |
| Vites for faculty members are a | voilable on magy | aat | |

Table 4. Forest Ecosystems and Society Workforce demographics: summary.

Vitae for faculty members are available on request.

Table 5. FES teaching and research faculty who engage regularly with students. The areas of concentration in the program are 1) Social science, policy, and natural resources; 2) Sustainable recreation and tourism; 3) Integrated Social and Ecological Systems; 4) Soil-Plant-Atmosphere Continuum, 5) Genetics and Physiology, 6) Forest, Wildlife and Landscape Ecology, and 7) Science of Conservation, Restoration and Sustainable Management.

| Name/Position | Academic Discipline | Area of Concentration |
|--|--|--------------------------|
| Adams, Michael Courtesy Faculty USGS FRESC | Wildlife ecology, aquatic ecology | 4, 6, 7 |
| Albers, Jo Associate Professor | Applied landscape economics | 1, 2, 3 |
| JBailey, John Associate Professor | Silviculture, restoration, fuels and fire management | 3, 4, 6, 7 |

| Betts, Matthew Assistant Professor | Forest wildlife landscape ecology | 3, 4, 6, 7 |
|---------------------------------------|---|------------|
| | Agroforestry, social forestry, | 3, 7 |
| Bishaw, Badege Instructor | silviculture, international forestry | 3, 1 |
| Bliss, John | Private forest policy, forest-based rural | 1, 3 |
| Professor and Starker Chair in | development | ι, υ |
| Private and Family Forestry | development | |
| Bond, Barbara J | Forest tree physiology | 3, 4, 5, 6 |
| Professor and Ruth Spaniol Chair of | T Ofest tree physiology | 0, 7, 0, 0 |
| Renewable Resources, Lead PI for | | |
| HJ Andrews LTER program | | |
| Bormann, Bernard | Long-term ecosystem productivity | 4, 6 |
| Courtesy Faculty | | ., - |
| USDA FS | | |
| Brooks, J Renee | Plant physiologist | 5, 6 |
| Courtesy Faculty | | -, - |
| USEPA | | |
| Campbell, John L. | Ecosystem science | 4, 6 |
| Research Associate | | |
| Cohen, Warren | Remote sensing | 4, 6 |
| Courtesy Faculty | | |
| Assistant Professor | | |
| USDA FS | | |
| Compton, Jana | Soil ecosystem ecology | 4, 6 |
| Affiliate Faculty | | |
| USEPA | | |
| Csuti, Blair | Wildlife habitat relationships, | 6 |
| Research Associate | vertebrate systematics | |
| Doescher, Paul | Restoration ecology | 3, 6, 7 |
| Professor and Director - Natural | | |
| Resources Program | | |
| Ganio, Lisa M | Statistics, biometrics, study design | 3, 6 |
| Associate Professor and Director – | | |
| Statistical Consulting | | |
| Gray, Andy | Forest ecology | 6 |
| Affiliate Faculty | | |
| Assistant Professor | | |
| USDA FS | ļ | |
| Grotta, Amy | Forest management | 7 |
| Assistant Professor - Extension | ļ | |
| Hagar, Joan | Wildlife biology | 6 |
| Affiliate Faculty | | |
| USGS, FRESC | | |
| Hansen, Everett | Forest pathology | 6 |
| Adjunct Professor | | |
| Department of Botany and Plant | | |

| Pathology | | |
|------------------------------------|---------------------------------------|------------|
| Harmon, Mark E | Forest Ecology, ecosystem science | 3, 4, 6, 7 |
| Professor and Richardson Chair in | | -, -, -, - |
| Forest Science | | |
| Harry, David | Molecular genetics, genomics tools | 5 |
| Director – Forest Molecular | | - |
| Breeding/Outreach | | |
| Hibbs, David E | Community ecology, silviculture | 3, 6, 7 |
| Professor, Associate Department | | -, -, - |
| Head, and Director of the Hardwood | | |
| Silviculture Cooperative | | |
| Howe, Glenn T | Forest genetics, genomics | 3, 5, 7 |
| Associate Professor and Director – | | -, -, |
| NW Tree Improvement Research | | |
| Cooperative | | |
| Huso, Manuela | Statistics, study design | 6 |
| Professional Faculty | | |
| Jayawickrama, Keith J | NW Tree Improvement Cooperative | 5 |
| Research Associate | | - |
| Jensen, Ed | Natural resource education, forest | 6, 7 |
| Professor and Associate Dean for | ecology | - , |
| Academic Affairs | | |
| Johnson, K. Norman | Forest planning, harvest scheduling, | 1,3 |
| Distinguished Professor | public land forest policy | , |
| Jones, Julia | Forest hydrology, surface processes, | 4, 6 |
| Adjunct Professor and Director – | biogeography | , |
| Ecosystems Informatics IGERT | | |
| Department of Geosciences | | |
| Kelsey, Rick | Entomology | 6 |
| Affiliate Faculty | | |
| USDA PNW | | |
| Kennedy, Rebecca | Forest landscape ecology | 6 |
| Affiliate Faculty | | - |
| Assistant Professor | | |
| USDA FS | | |
| Kennedy, Robert | Remote Sensing | 6 |
| Assistant Professor – Senior | | |
| Research | | |
| Krankina, Olga N | Carbon cycling | 4, 6 |
| Associate Professor – Senior | | |
| Research | | |
| Kruger, Linda | Social science | 1 |
| Affiliate Faculty | | |
| USDA FS | | |
| Lach, Denise | Environmental natural resource | 1, 2, 3 |
| Adjunct Associate Professor | sociology, water conflict and dispute | - , , - |
| / ajunor / loovelate / referee. | | |

| Department of Sociology | resolution | |
|---|--|---------|
| Lachenbruch, Barb | Ecophysiology of living trees, wood | 5, 7 |
| Adjunct Professor | quality for utilization | 0, 1 |
| Department of Wood Science | 1 | |
| Engineering | | |
| Lajtha, Kate | Nutrient cycling, soil organic matter | 4, 6 |
| Adjunct Professor | dynamics, forest biogeochemistry | |
| Department of Botany and Plant | | |
| Pathology | | |
| Law, Beverly Elizabeth | Global change, forest science | 4, 6, 7 |
| Professor and Chair – Ameriflux | | |
| Network | | |
| Lindberg, Kreg | Eco-tourism | 2 |
| Associate Professor – Cascades | | |
| Campus | | |
| Lunch, William | Political institutions, regional politics, | 1 |
| Adjunct Professor | environmental, natural resource and | |
| Chair of Department of Political | science policy | |
| Science | | |
| McComb, Brenda | Forest and wildlife ecology | 6, 7 |
| FES Department Head | | |
| McCulloh, Kate | Plant physiology, long-distance | 4 |
| Adjunct Faculty Research Associate | transport of water by plants | |
| Department of Wood Science and | | |
| Engineering | | |
| McIver, Jim | Forest and range ecology and | 6, 7 |
| Adjunct Associate Professor | management, insect ecology | |
| Eastern OR Ag Research Station | | |
| Morzillo, Anita | Landscape ecology, wildlife ecology, | 1, 3, 6 |
| Assistant Professor – Senior | human dimensions | |
| Research | | 4.0 |
| Myrold, David | LTER, soil microbiology, forest soils | 4, 6 |
| Adjunct Professor | | |
| Department of Crop and Soil Sciences | | |
| Needham, Mark | Human dimensions of natural | 1, 2, 3 |
| Assistant Professor | resources, recreation tourism, wildlife | I, ∠, J |
| Olsen, Keith | Geospatial programming, GIS analysis | 6 |
| Research Associate | | U |
| Perakis, Steve | Ecosystem biogeochemistry | 4, 7 |
| Courtesy Faculty | | 7, 7 |
| Assistant Professor | | |
| USGS FRESC | | |
| Puettmann, Klaus | Silviculture, forest ecology | 3, 6. 7 |
| Edmund Hayes Professor in | | 0, 0. 7 |
| Silviculture Alternatives | | |
| | | |

| Pyke, David | Plant population ecology | 6, 7 |
|---|---|---------|
| Affiliate Faculty | | |
| Associate Professor USGS FRESC | | |
| | Faract acalemy austainable forestry | 67 |
| Radosevich, Steve Professor Emeritus | Forest ecology, sustainable forestry, invasive plant species | 6, 7 |
| Reuter, Ron | Pedology, soil science, wetland soils | 4 |
| Associate Professor – Cascades | Feddidgy, soil science, wedand soile | т |
| Campus | | |
| Ripple, Bill | Wildlife habitat analysis, landscape | 6 |
| Professor and Director - ERSAL | ecology | - |
| Rivers, James | Wildlife ecology | 6 |
| Research Associate | | |
| Rosenberger, Randall | Environmental economics | 1, 2, 3 |
| Associate Professor | | |
| Ross, Darrell W | Integrated forest protection, | 6, 7 |
| Professor and Director – Richardson | entomology | |
| Hall Quarantine Facility | | |
| Salwasser, Hal | Wildlife biology | 6 |
| Professor and Dean | | |
| Schulze, Mark | Wildlife ecology | 6 |
| Director – HJ Andrews Experimental | | |
| Forest | | |
| Shelby, Bo | Social science and natural resources, | 1, 2 |
| Professor | recreation behavior and management | |
| Simon-Brown, Viviane | Human dimensions of natural resource | 1, 7 |
| Professor and Area Extension | sustainability | |
| Leader | Li u su lutere atiene fen Nietunel | 1.0 |
| Shindler, Bruce | Human Interactions for Natural | 1, 2 |
| Professor | Resource Planning and Decision- | |
| Sisock, Mary | making Social science outreach | 1 |
| Adjunct | | I |
| Initiative Director – Ties to the Land | | |
| Program | | |
| College of Business | | |
| Smith, Jane | Forest mycology | 6 |
| Courtesy Faculty | | |
| Professor | | |
| USDA FS | | |
| Sollins, Phil | Forest ecosystems and soils | 4 |
| Professor Emeritus | | |
| Spies, Tom | Forest ecology | 3, 6, 7 |
| Courtesy Faculty | | |
| Professor | | |
| USDA FS | | |
| | | |

| St. Clair, John (Brad) | | 5 |
|--|---|---|
| Courtesy Faculty | Forest Genetics | 5 |
| USDA FS | | |
| Strauss, Steven H | Forest genetics, biotechnology | 3, 5, 7 |
| Distinguished Professor and | | - , - , |
| Director of Tree Genomics and | | |
| Biosafety Research Cooperative | | |
| Swanson, Fred | Geomorphology | 6 |
| Courtesy Faculty | | |
| Professor | | |
| USDA FS | | |
| Taylor II, Jimmy D | Wildlife management | 6 |
| Courtesy Faculty | | |
| USDA APHIS | | |
| Trappe, Jim | Fungal taxonomy | 6 |
| | | |
| | | |
| | Ecological modeling, climate science | 4 |
| | | |
| | | |
| | Recreation resource management | 1, 2 |
| | | 4 |
| | Biomicrometeorology | 4 |
| | | |
| | | |
| | Conflict management, natural resource | 1 |
| | e | I |
| | | |
| | | |
| | Physiological ecology | 6 |
| | T Tryslological coology | 0 |
| | Forest management education. | 7 |
| Assistant Professor – Extension | conservation restoration | - |
| Woodruff, David | Tree physiology | 5 |
| Courtesy Faculty | | |
| USDA FS | | |
| Yang, Zhiqiang | Genetics | 5 |
| Research Associate | | |
| Ye, Terrance Zhihong | NW Tree Improvement Cooperative | 5 |
| Research Associate | | |
| Zahler, David | Director – Peace Corps Masters | 1, 7 |
| Senior Instructor | Program | |
| USDA APHIS Trappe, Jim Courtesy Faculty USDA FS Retired Turner, David P Associate Professor - Senior Research Tynon, Jo Assistant Professor Unsworth, Michael Adjunct Professor – Emeritus College of Oceanography and Atmospheric Sciences Walker, Gregg Adjunct Professor Chair – Department of Speech Communication Waring, Dick Professor Emeritus Withrow-Robinson, Bradford Assistant Professor – Extension Woodruff, David Courtesy Faculty USDA FS Yang, Zhiqiang Research Associate Ye, Terrance Zhihong Research Associate Zahler, David | Ecological modeling, climate science Recreation resource management Biomicrometeorology Conflict management, natural resource decision making Physiological ecology Forest management education, conservation restoration Tree physiology Genetics NW Tree Improvement Cooperative Director – Peace Corps Masters | 4 1, 2 4 1 6 7 5 5 5 5 |

- *k.* (*Other staff*) The departmental office is supported by an office manager, two full-time support staff, and two part-time employees. One faculty member serves as a part-time associate department head. One faculty member serves as a part-time graduate program director. One faculty member serves as a part-time director of the undergraduate Natural Resources degree program. One faculty member serves as a part-time statistical consultant for faculty and students.
- (Facilities, library other resources) FES is housed primarily in Richardson Hall, which provides excellent office, laboratory, classroom, computer, GIS, and distance education space. The Department enjoys a strong working relationship with the <u>USDA Forest Service Pacific Northwest</u> <u>Research Station</u>, <u>USGS Forest and Rangeland Ecosystem Science Center</u>, and the <u>U.S.</u> <u>Environmental Protection Agency</u> Laboratory, all located near Richardson Hall. The activities of these and other departments on campus combine to form the largest concentration of forest ecosystems and social science research in North America.

The 16,000-acre H.J. Andrews Experimental Forest on the Willamette National Forest is administered by the USDA Forest Service, and research is jointly managed by OSU and the Pacific Northwest Research Station under a National Science Foundation-sponsored long-term agreement. During the last 21 years as a part of the NSF Long Term Ecological Research (<u>LTER</u>) program, the Andrews Experimental Forest has become a leader in the analysis of forest and stream ecosystem dynamics.

The OSU College Forests are living laboratories where active forest management practices provide teaching, research, and demonstration opportunities for students of all ages, for forest managers, and for Oregonians. The College Forests comprise the McDonald-Dunn, Spaulding, Marchel, and Blodgett forest properties, totaling about 14,000 acres.

The mission of the Cooperative Chemical Analytical Laboratory (CCAL) is to provide high quality, trace-level analysis of nutrients, ions, and physical properties of natural waters in a timely and economic manner. CCAL is one of a few facilities on the west coast of the United States where low concentrations of these aqueous constituents can be reliably measured. Data produced by CCAL allow direct comparisons among diverse studies, creating a legacy of data that grows with each new study. By standardizing detection and measurement of the chemical and physical properties of water, and by eliminating the need and expense of establishing duplicate facilities, CCAL operations are beneficial to both cooperative and individual research projects.

The College of Forestry supports a sophisticated computer network for electronic connectivity among the three-building forestry complex, county Extension offices, the College Forest, the H.J. Andrews Experimental Forest, and collaborating agencies.

The Quantitative Sciences Group provides statistical consulting services for students and faculty in FES.

This renaming will have no impact on library services. In addition to the resources of the Valley Library, students in the College of Forestry have access to the Self-Learning Center. Located in Peavy A252, the Self Learning Center is a media-rich learning environment that serves the students of the College, providing access to reserve readings, audiovisual programs, and other self-paced learning materials.

m. (*Anticipated start date*) We would like to begin the revised program as soon as possible, preferably for new students in the fall of 2011.

2. Relationship to Mission and Goals

a. (Manner in which the proposed program supports the institution's mission and goals for access, student learning, research and/or scholarly work, and service.) The department has a balanced distribution of FTE among teaching, research, outreach and service. All four efforts interact broadly with colleagues, clients and interests groups throughout the state and across the globe. Students are encouraged to participate in all four types of activity. Most students are fully supported on assistantships; GRA opportunities are advertised on the FES web site and through disciplinary list-serves.

b. (Connection of the proposed program to the institution's strategic priorities and signature areas of *focus.*) OSU's Strategic Plan, Phase II, identified Advancing the Science of Sustainable Earth Ecosystems as a signature area of distinction. This newly-reorganized department and its graduate program are poised to take the integration of social and biological sciences in the understanding and management of natural resource systems to a new level for OSU. The revision of this graduate program is in recognition of this potential and is a mechanism to assure its progress.

c. (*Manner in which the proposed program contributes to OUS's goals for access, quality learning, knowledge creation and innovation, and economic and cultural support of Oregon and its communities.*) See 1e and 2a above. FES is a leader at OSU in the research and knowledge creation arena. Total new grants and contracts received in FY 2008-09 was over \$6.9 million as of June 2009, generating over \$200,000 in overhead for the College annually. The T/TT professorial faculty produced 119 research publications and 3 text books during the year. FES is also a leader at OSU in the community outreach arena. Faculty in the department led over 170 workshops and outreach presentations.

d. (*Manner in which the proposed program meets broad statewide needs and enhances the state's capacity to respond effectively to social, economic, and environmental challenges and opportunities.*) See 2c above for ways in which the program assists development of the state's economic capacity. The teaching, research and outreach of the department are central to meeting the state's environmental challenges and opportunities. The science we are engaged in is central to concepts of sustainability, ecosystem services and natural resources management.

3. Accreditation

There is no professional accreditation applicable to this degree programs. Some employers for graduates from some of the program's Areas of Concentration (MS level) have course lists that they consider as desirable when evaluating an applicant.

4. Need

a. (Evidence of market demand.) In the 2009-10 academic year, the number of applications for graduate positions with faculty included in this grad program was 68; only 20 have been accepted. Faculty get many more direct inquires every winter from potential applicants who do not wind up submitting applications because of an unavailability of assistantships with that advisor. In addition we have noted that many of the FS students wish to include aspects of social science in their curriculum. Members of the FR graduate program find that their social science students are also including ecological considerations in their programs of study. This demand is generated by an increasing recognition that (a) addressing ecological challenges requires addressing the human component of the ecosystem and (b) that challenges to cultures and communities have effects on the environmental system as well. This level of demand for positions is generated by a web presence and the reputation of the program and individual faculty around the world. OSU has one of the few colleges of forestry left in North America and one of the very best. And this department benefits from the outstanding reputation of its faculty among colleagues at other institutions. We are seeking to change our program name to more accurately reflect the inclusion of the social science component that is already a large presence in our department.

One sign of the relevance and coming demand for graduates skilled in integrated sciences is the recent creation by NSF of a new program called "The Decadal Plan for LTER \cdot ISSE - Integrative Science for Society and Environment".

b. (If the program's location is shared with another similar OUS program, proposal should provide externally validated evidence of need (e.g., surveys, focus groups, documented requests, occupational/employment statistics and forecasts). Not applicable.

c. (*Manner in which the program would serve the need for improved educational attainment in the region and state.*) The revised program will provide specific disciplinary opportunities in both ecological and social sciences in the natural resource setting but also strives to develop interdisciplinary skills and knowledge. The demand for disciplinary training has always been strong; the demand for integrated, interdisciplinary training has grown rapidly and, in natural resources, is currently an unmet demand.

d. (*Manner in which the program would address the civic and cultural demands of citizenship.*) See section 2b-d above. The natural resources of Oregon are essential to the economic and social well-being and identity of Oregonians. This program is educating the next generation of scientists and educators dealing with forest-based knowledge, concepts and values. An especially critical dimension of this program is its explicit recognition that the interaction of biological and social scientists is critical to resolving many current and future natural resource issues.

5. Outcomes and Quality Assessment

a. (Expected learning outcomes of the program.)

Graduates of our program will be able to

- be experts within their discipline (s)
- add to the base of knowledge and understanding in natural resource systems
- demonstrate critical thinking skills

- pose appropriate and effective questions
- use interdisciplinary skills and knowledge to critically evaluate existing research
- identify and contribute to collaborative solutions in their discipline
- be able to communicate knowledgeably and effectively about current topics in ecology, natural resource-related social science and natural resources policy
- be prepared to participate in and contribute to interdisciplinary research teams
- conduct rigorous, high-quality research

b. (Methods by which the learning outcomes will be assessed and used to improve curriculum and *instruction.*)

- Instructors are asked to include the learning outcomes in their courses and to evaluate students on

them

- Course evaluations will be discussed as part of instructor performance reviews
- Prelim and final exams (defenses)
- Department head exit interview

- Teaching evaluations are an integral part of promotion and tenure decisions and all teaching faculty undergo an external review of their materials and their effectiveness as instructors by peers as well as by the students with whom they have worked.

c. (*Program performance indicators.*)

- Graduation rates
- Median GPA of student populations
- Publication and presentations
- Awards received
- Employment rate and type

d. (*Nature and level of research and/or scholarly work expected of program faculty; indicators of success.*) Faculty are expected to fund research programs with competitive and non-competitive grants and publish research results in peer-reviewed journals appropriate for the subject matter. See 2c.

6. Program Integration and Collaboration

a. (Closely related programs in other OUS universities and Oregon private institutions.) There are no closely related programs in Oregon. In Oregon (and around the world), there are individuals in educational institutions who do related research; our faculty and graduate students collaborate with these individuals.

b. (Ways in which the program complements other similar programs in other Oregon institutions and other related programs at this institution. Proposal should identify the potential for collaboration.) NA. See 6a.

c. (If applicable, proposal should state why this program may not be collaborating with existing similar programs.) NA. See 6a

d. (Potential impacts on other programs in the areas of budget, enrollment, faculty workload, and facilities use.) This action may reduce enrollment in the Forest Resources graduate program. The Forest

Engineering, Management, and Resources Department is currently in discussion about significantly revising the Forest Resources graduate program to reflect the reorganization of their department too.

7. Financial Sustainability

a. (Business plan for the program that anticipates and provides for its long-term financial viability, addressing anticipated sources of funds, the ability to recruit and retain faculty, and plans for assuring adequate library support over the long term.) This program revision does not change or require changes in the Department's or College's business plans or cost basis. The State's and University's current financial challenges do provide some short-term challenges at the departmental level. Responding to the Provost's initiative, we are working with other campus units to build support for faculty lines that would be mutually beneficial.

b. (*Plans for development and maintenance of unique resources (buildings, laboratories, technology) necessary to offer a quality program in this field.*) This program revision does not change or require changes in the management and delivery of courses and educational opportunities. See 11 for facilities list.

c. (*Targeted student/faculty ratio* (*student FTE divided by faculty FTE*).) See 1j. The Department currently has 27 T/TT faculty, including Extension faculty. In addition, a number of courtesy and adjunct faculty advise students in this program. In spring term, 2010, there were 44 graduate students advised by this faculty.

d. (*Resources to be devoted to student recruitment.*) Student recruitment is done through web-based communications and word-of-mouth among colleagues. We are currently revising our web presence to better reflect our program potentials and to better catch the attention of potential applicants. As part of this effort, we are conducting some key-word surveys among student and professional groups. One office staff member and the Graduate Program Advisor work closely with student inquiries and applicants.

8. External Review

This proposal is for a revision of an existing graduate program resulting from departmental reorganization within the College of Forestry so an external review is not needed.

Appendix II

FES Graduate Program Handbook revised September 2017

Forest Ecosystems & Society Graduate Program Handbook

September 2017

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ABOUT THIS HANDBOOK

Take note:

These boxes contain important info that students tend to miss. This handbook is designed for graduate students and potential graduate students of the Forest Ecosystems and Society program. In addition to basic information on admissions, program requirements, and academic policy, this handbook includes useful details on the resources and available to you as a student of our graduate program. Some sections provide suggested timelines, procedures, and strategies to help you get the most out of your graduate program. Be sure to read carefully to understand what is *suggested* and what is *required*.

This version of this handbook has been optimized to use as a hard copy, including long-form links you can type into your web browser. A digital version is available online on the FES Current Students Resources page (*fes.forestry.oregonstate.edu/fes-student-resources*). The digital version includes hyperlinks to open relevant pages in your web browser, and a Table of Contents with clickable links to take you directly to the page you're looking for.

Please contact Grad Coordinator Jessica Bagley (*Jessica.Bagley@OregonState.edu*) if you have questions, or if you would like to suggest changes or additions to future versions of this handbook.

Happy reading!

OUR MISSION

Our department brings together biological and social scientists and philosophers to understand ecological systems, social systems, and the interactions between these systems. We work in terrestrial to aquatic systems, in wildland to urban settings, and from local to global scales. We evaluate the scientific and philosophical basis for management and policy decisions and provide enhanced frameworks for those decisions reflective of our latest findings. We conduct creative problem-solving and fundamental research; educate and engage the next generation of scholars, practitioners, and users of the world's natural resources; and share our knowledge and discoveries with others.

PROGRAM OVERVIEW

The Forest Ecosystems and Society graduate program seeks to develop interdisciplinary thinkers, highly capable scientists, and natural resource leaders who are prepared to solve complex socioecological problems.

By combining a strong social science faculty with a strong biological and ecological science faculty, FES provides an unusual opportunity to focus on the interface of social science and ecology in addition to standard ecological and social science studies. The FES graduate program provides specific disciplinary opportunities in both ecological and social sciences in natural resource settings, but also strives to develop interdisciplinary skills and knowledge. Graduates of the program will be able to identify and contribute to collaborative solutions in ecology and natural resource-related social science.

DEGREE OFFERINGS

Students in our program pursue their Master of Science (M.S.), Master of Forestry (M.F.), or Doctor of Philosophy (Ph.D.) degree. Some students will pursue more than one of these degrees through our program.

The standards and challenges associated with these degrees can vary greatly. If you are pursuing one these degrees, please review the 'Steps to Graduation' section for details on degree requirements and deadlines.

Master of Science (MS)

The MS degree focuses on building both disciplinary depth and interdisciplinary knowledge and skills in a research context that will qualify graduates for careers in research, teaching, industry, consultation, and other roles that require specific or generalized expertise.

Who applies to the MS program?

The MS degree is a research and thesis based degree designed to enable students to work directly in their specific discipline or at the intersection of a diversity of disciplines at an advanced level. Some students in FES pursue their MS as the next step after earning an undergraduate degree or as a natural precursor to seeking their Ph.D. Others are seeking to redirect or advance their careers. MS students typically need 6-7 quarters (2-2.5 years) to complete their degree.

What is a typical MS degree program like?

Throughout their program, MS students learn the skills required to participate in high-level research. This includes developing researchable questions, crafting a professional research proposal, managing timelines, collecting and analyzing data, communicating their results, and ensuring all aspects of their research adhere to ethical standards. MS students are usually expected to publish 1-2 articles in scientific journals as a result of their thesis and present their results at professional scientific meetings. MS students are expected to devote time and effort to professional development activities.

Although the student can count on their major professor and graduate committee for guidance, they must be responsible for managing their own time, taking action to meet learning outcomes, fulfilling program and University requirements, and making progress on their research and degree.

Master of Forestry (MF)

The MF degree builds skills and knowledge that graduates can quickly and directly apply to their careers.

Who applies to the MF program?

The MF degree is a non-thesis terminal degree designed for working professionals who are seeking continuing education. Some MF students are fully employed and remain fully employed for the duration of their program. Others may be seeking an opportunity to take their career to the next level or prepare for a career after completing an undergraduate degree.

What is a typical MF degree program like?

MF students typically do not develop or conduct research, and are not required to submit a research proposal, do a presentation of this proposal, or write a thesis. Instead, MF students are required to complete a capstone project with the guidance of their major professor and graduate committee. MF students typically need 3-5 terms (1-1.5 years) to complete their degree.

Doctor of Philosophy (Ph.D)

The FES Ph.D degree prepares students to conduct original scientific research in a specific field and includes deepening disciplinary and interdisciplinary knowledge and skills.

Who applies to the Ph.D program?

The Ph.D degree is designed for students seeking careers at the highest levels of research in their specific discipline or at the intersection of a diversity of disciplines. A Ph.D can be a pivotal benefit for those seeking high-level or impactful careers in biophysical or social science, but it requires a serious, long-term commitment of mental, physical, and emotional energy. Students should carefully consider their goals and evaluate whether earning a Ph.D is the best way to meet these goals. Applicants to the FES Ph.D program are not required to have an MS degree in their intended Ph.D field.

What is a typical Ph.D program like?

Newly-enrolled Ph.D students are expected to be familiar with the basic concepts of scientific research, including defining researchable questions, writing a research proposal, collecting and analyzing data, and communicating the results. Ph.D students are expected to provide the scientific creativity and rigor to identify impactful areas of research, develop researchable questions and research investigations, carry out these investigations, and effectively communicate the results. Ph.D students typically publish 3-4 papers in scientific journals as part of their dissertation. Ph.D students typically need 4-5 years to complete their degree.

Ph.D students are expected to build credibility in their field by publishing their research, contributing to peer-reviewed journals, presenting at conferences, attending workshops and meetings, and seeking collaborations with other members of the field. Depending on their goals and interests, Ph.D students may also be expected to build teaching experience, engage in professional development opportunities, and provide service to their discipline or their department.

AREAS OF FOCUS

The Department of Forest Ecosystems and Society includes students and faculty with diverse research interests, ranging broadly between the purely biophysical and the purely sociological.

The areas of focus provided below are used during the application process to connect applicants with potential major professors who have similar research interests. The majority of our students and faculty conduct research that combines several areas of focus or lies somewhere between these areas. After a student is enrolled, they do not need to officially register in any of these areas, nor will these areas be used to dictate what courses or research they can or cannot do.

Forest, Wildlife, and Landscape Ecology

Uses a range of research tools and models to understand how species act, react and interact at many spatial and temporal scales. These dynamics take place in an environment that can change gradually or quite rapidly, which can directly or indirectly affect species and their inter-relationships.

Genetics and Physiology

Examines the genetic and physiological mechanisms that determine how plants grow, reproduce, respond to their environment, and are managed and modified for human benefit. We research means to improve the environmental sustainability of energy, wood, and paper production in trees using genomics (entire DNA) and genetic engineering methods.

Integrated Social and Ecological Systems

Explores the issues created by the intersection of natural systems and our society's rapidly evolving needs and brings biophysical and social sciences together to explore complex natural resource issues.

Science of Conservation, Restoration, and Sustainable Management

Forests have long been influenced by anthropogenic and natural disturbances. To sustain the variety of ecosystem services generated by healthy forests requires understanding these processes and evaluating different management practices that can restore and sustain multiple values.

Social Science, Policy, and Natural Resources

Examines the complex interactions between our communities, cultures, governments, and the natural resources that support our continued life and development. Explores methods for engaging scientists, managers, and the public in addressing environmental problems.

Soil-Plant-Atmosphere Continuum

The movement of energy and matter within and among ecosystems controls how these systems function and the services they provide. This area of concentration investigates the mechanisms controlling ecosystem behavior from a micro to macro scale, including the impacts of anthropogenic emissions of greenhouse gases

Sustainable Recreation and Tourism

Explores psychological motivations and benefits of recreation, as well as approaches to ensure sustainable recreation and tourism enterprises. Includes recreation and tourism behavior, social and/or ecological impacts of tourism, and planning, management and policy.

CONSIDERATIONS FOR ADMISSION

When reviewing your application, we will be looking for evidence of your potential to succeed as a student in your selected degree program (MS, MF, or Ph.D) and a researcher/contributor in your selected area(s) of focus. This evidence can be presented in many ways in different parts of your application; reviewers will make decisions based on the big picture your application presents, not on any single component. Aside from the minimum standards for admission set by Oregon State University, the FES program does not have a minimum required GPA or GRA score.

In addition to meeting the Graduate School's admission requirements (*gradschool.oregonstate.edu/admissions/academic-requirements*), successful applications to our program will show evidence of:

- A knowledge of mathematics and the scientific method sufficient for the specified area of focus
- Oral and written communication skills
- Motivation to succeed
- A maturity that will allow the independent work required of a graduate student

Additionally, successful applications to the following degrees will show evidence of:

Master of Science (MS)

- Advanced academic ability
- Intellectual curiosity and initiative
- Ability to think critically and solve unusual or complex problems
- Potential to master pertinent scientific concepts and methods

Master of Forestry (MF)

- Academic competency
- Intellectual curiosity and drive

Doctor of Philosophy (Ph.D)

- Academic excellence
- Intellectual curiosity and initiative
- Ability to think critically and solve unusual or complex problems
- Advanced knowledge of pertinent scientific concepts and methods
- Experience in research, including planning, execution, analysis, interpretation, and writing
- Depth and breadth, both in research experience and course work
- Intellectual and emotional maturity

Evidence for these characteristics can be demonstrated in your student transcripts, in your statement of objectives and in the requested letters of reference. We encourage you to share our considerations for admission with your references when requesting letters of support.

POTENTIAL MAJOR PROFESSORS

Make contact:

Applicants cannot be accepted until they have a commitment from a major professor. We very strongly encourage you to follow these steps before submitting your application. Your major professor (sometimes referred to as a graduate advisor, or simply advisor) will be a vital part of your application and program. Before you apply, it is crucial that you learn about the FES Graduate Faculty, investigate the work they are doing, determine who would be the best major professor for you, and reach out to these potential major professor with serious inquiries about working with them.

Applicants cannot be accepted into the FES degree program until a member of the FES Graduate Faculty commits to serving as their major professor. Applicants typically contact potential major professors in order to secure a commitment. Some major professors may not be accepting students during your application period. Individual major professors may require applicants to demonstrate skills or knowledge greater than or additional to the minimums set by the FES Graduate Program. Best practices for identifying and selecting a major professor are described below.

Choosing Potential Major Professors

First, visit the Research page of the department website (*fes.forestry.oregonstate.edu/research*). Review the listed research areas (also referred to as 'Areas of Focus') and determine which best describe your interests – there may be more than one!

Second, create a shortlist of potential major professors. You can locate faculty doing the research you are interested in either by searching the online directory of potential major professors (*fes.forestry.oregonstate.edu/people/major-advisors*) or by reviewing current projects on the Research page of the department website linked above.

Third, conduct a thorough review of the research, publications and accomplishments attributed to the potential major professors on your shortlist. Use this information to help you determine if this major professor would be a good fit for you and to help you in your communications with them.

Contacting Potential Major Professors

Different major professors look for different qualities in potential students. In general, when contacting a potential major professor:

- Write in a concise, professional and respectful manner
- Discuss your academic and professional qualifications
- Demonstrate that you are contacting that faculty member because you are knowledgeable of and interested in their work and expertise
- Include your goals and motivations for your graduate education
- Include your CV, transcripts, or other pertinent documents
- Address any responses from your potential major professor in a timely and professional manner

What does a major professor *do?*

See Page 57 for more information about the role your major professor will play in your program.

ADMISSIONS | POTENTIAL MAJOR PROFESSORS

9

Before Committing

Understanding funding

See Page 47 for more information about your financial options and commitments. Before you and any potential major professors agree to work together, it is important to have a faceto-face detailed conversation about whether you are a good fit for each other. These conversations should include:

- Whether their continued research and projects fit in with your long-term goals
- The expectations you have for each other while working together
- How your education will be funded, and who is responsible for which aspects of your funding.

Challenges

If you do not receive any interest from the potential major professors you contacted, you can either create a new shortlist or submit your application without a major professor. Most graduate faculty select their advisees from the applicants who have taken the initiative to review their work and contact them in advance. However, graduate faculty have the opportunity to review applications with no major professor and contact any applicants they are interested in working with in the future.

HOW TO APPLY

Before you can enroll in the FES graduate program, your application must be reviewed and accepted by the program and the Graduate School. Before you apply, make sure you review the Graduate School's application procedures (*gradschool.oregonstate.edu/admissions/process*).

Deadlines

Going to miss the deadline?

Contact the Grad

your situation could merit an exception.

Coordinator if

something is preventing you from applying on time – The FES Graduate Program deadlines are different from Graduate School deadlines (*gradschool.oregonstate.edu/admissions/deadlines*). Please review both and adhere to whichever deadlines are earliest.

Fall Term

For the best chance of being accepted and receiving any type of funding from OSU, plan on submitting your application in the November or December prior to the fall term for which you are applying. It can be helpful for you to make your references aware of the deadlines so that their letters of reference for you reach OSU on time.

Applications with materials (including letters of reference) submitted by the dates below will:

January 1st

- Receive full consideration by the program's Admissions Committee
- Meet the deadlines for most OSU scholarship and fellowship competitions

January 15th

- Receive full consideration by the program's Admissions Committee
- Meet the deadlines for some OSU scholarship and fellowship competitions

March 1st

- Receive consideration by the program's Admissions Committee as time and space allow
- Meet the deadlines for a few OSU scholarship and fellowship competitions

April 15th

- Receive consideration by the program's Admissions Committee as time and space allow
- May not meet deadlines for any OSU scholarship and fellowship competitions

Other Terms

Applicants seeking to matriculate in winter, spring, or summer will likely have limited access to scholarship and fellowship competitions. For the terms below, all application materials (including letters of reference) should be submitted by:

Winter: September 15th Spring: December 15th Summer: March 15th

Application Materials

In addition to the materials required by the Graduate School, our program requires applicants to submit the following:

Statement of Objectives

Your statement should be a well-written essay/letter of interest that addresses your goals and motivations to be a student of the Forest Ecosystems and Society program, the role that graduate education will play in your long-term goals, and the experiences and education that have prepared you for graduate school. It is helpful to review the considerations for admissions described earlier and address the criteria in your statement. The Statement of Objectives is vital to your application's success – please take the time to craft it carefully!

Letters of Recommendation (3):

The three required letters of recommendation should address your critical thinking skills, work ethic and the considerations for admission described above. They should be written by sources who have first-hand experience with your performance in pertinent settings and who understand the demands of graduate school. Letter writers should not pose an actual or potential conflict of interest. For example, letters should not be supplied by your potential major professor or by someone supervised by your potential major professor. Letters must be submitted through the Online Letter of Recommendation System. Hard copy letters sent to the department will not be accepted.

Curriculum Vitae (CV) or Resume:

This should include experience pertinent to your academic and professional goals. This may include work experience, volunteer experience, publications, presentations, and/or awards.

Graduate Record Examination (GRE) scores:

Please see the Graduate School Admissions website for information on submitting your GRE scores. FES requires official verbal, quantitative, and analytical writing scores less than five years old. Applicants who have received a Masters degree in a scientific field within the past five years may request a waiver. Subject-specific GRE test scores are not necessary for any applicant.

Transcripts:

Skipping the GREs

Ph.D applicants who received an MS within the past 5

years aren't required

to submit GRE

scores...however,

certain scholarships or fellowships.

GRE scores *are* required if you want to be considered for

To evaluate your application, Oregon State University may use official or unofficial transcripts from each institution you have attended. Official transcripts should be sent from your institution directly to the Graduate School, either physically or via electronic transcript providers Parchment, E-Scrip Safe, or National Clearinghouse. Unofficial transcripts are copies of official transcripts, and include a transcript key. Web-generated transcripts are not accepted. If you are accepted to the program and admitted to Oregon State University using an unofficial transcript, you must supply an official transcript before you can enroll.

ADMISSIONS | HOW TO APPLY

Application Procedures

Before you submit your application, you must:

- Review the considerations for the degree you are applying for
- Review the Graduate School's requirements and application procedures
- Determine your area(s) of focus
- Determine needs and strategies for funding your degree program (see Page 47)
- Create a shortlist of potential major professors and initiate contact with these professors
- Ensure your application will meet program and Graduate School deadlines

When those tasks are completed, you can:

- Prepare the application materials required by the program and the Graduate School
- Submit your application online (oregonstate.force.com/GradAppLogin)
- Submit any additional materials not part of the fundamental application
- Ensure that your three references have all submitted their letters via the Online Letter of Reference system

The wait time to receive a decision depends on the volume of applications we are receiving (heaviest in December, January, and February). Applicants who complete their applications without a commitment from a major professor can expect to wait longer than those who apply with a major professor in place.

Applying for a FES Ph.D Without a Masters Degree

It is possible for an applicant to be admitted to the FES Ph.D program without a Masters degree. However, applicants without a Masters degree will still be expected to provide evidence of their qualifications consistent with the Considerations for Admission specified for the FES Ph.D program (see Page 7). Without the framework of a successfully completed Masters program, this evidence may be difficult (though not impossible) to provide.

Before submitting a Ph.D application, applicants without a Masters degree should have a serious discussion with their potential major professor regarding the benefits and drawbacks of directly pursuing a FES Ph.D instead of first pursuing a FES MS. Applicants should never advance their MS application to a Ph.D application simply to meet eligibility requirements for funding competitions.

Proceeding from a FES MS to a FES Ph.D

While it is not typical to get a Ph.D and MS degree from the same institution, it is permitted. If a FES MS student wishes to enroll in the FES Ph.D degree after completing their MS degree, they must apply to the FES Ph.D degree via the process detailed below. Before applying, it is recommended that students consult with their current MS major professor, their proposed Ph.D major professor (see below), and/or the Graduate Program Director to determine whether they are prepared for a Ph.D program. Students should be aware that the Ph.D program is not an extension of their MS

program; it is a far lengthier, more rigorous program with different expectations and standards that prepares students for a different career trajectory.

As with standard applications, current MS students can only be accepted into the FES Ph.D program after a qualified graduate faculty member has agreed to serve as their Ph.D major professor. Students who intend for their MS major professor to continue on as their Ph.D major professor should ensure that professor is willing and approved to advise at the Ph.D level – not all MS major professors are.

Application Procedures

Students intending to proceed from a FES MS to a FES Ph.D are not required to submit an online application through OSU's Graduate School. Instead, they will ensure the materials below are delivered directly to the FES Grad Coordinator.

Although there are no specific deadlines for current FES MS students to apply to the FES Ph.D program, students are strongly encouraged to submit application materials approximately one month before their final exam. This timing will help ensure the student can complete degree change procedures (see 'If Accepted' below) prior to their final exam. If students intend to apply for 'New Student' funding, they must apply and be accepted in accordance with those funding deadlines.

Application Materials

Although applications to the FES Ph.D program include the same components as applications to the FES MS program, they are evaluated using different standards. Current FES MS students should produce new application materials that specifically reflect their qualifications and goals for the FES Ph.D program instead of reusing materials from their original FES MS application.

After the Grad Coordinator receives the materials below, they will pull the student's current OSU transcripts and the GRE scores and transcripts from the student's original application to the FES MS program. This will complete the application.

Statement of Objectives: Complete in accordance with instructions from Page 11. Please ensure that the statement adequately addresses the objectives of a Ph.D program and not the MS program.

CV: Complete in accordance with instructions from Page 11.

Letters of recommendation (3): Letters should specifically address the applicant's qualifications for a Ph.D program. Letter writers should not pose an actual or potential conflict of interest. For example, letters should not be supplied by your potential major professor or by someone supervised by your potential major professor. Letters may either be delivered to the Grad Coordinator in a sealed envelope or e-mailed directly to the Grad Coordinator. Beyond this, letters should be completed in accordance with instructions from Page 11.

If Accepted

If a current FES MS student is accepted to the FES Ph.D program, they may proceed to the Ph.D program in one of two ways:

ADMISSIONS | HOW TO APPLY

- If the student does not plan to complete their current MS degree, they will complete a 'Change of Degree' form (*gradschool.oregonstate.edu/forms*) to switch from an MS to a Ph.D effective immediately (or at a time designated by the student and their current/future major professor).
- If the student plans to complete their current MS degree, they will complete a 'Change of Degree' form (gradschool.oregonstate.edu/forms) to add a concurrent Ph.D degree to their record in the months leading up to their MS final exam. During this period, the student will technically be an MS student and a Ph.D student at the same time. When the student successfully completes their MS program, they may continue as a Ph.D student uninterrupted.

Once enrolled in the FES Ph.D program, students will be expected to meet program and University Ph.D requirements, including completion and submission of a new Program of Study form, learning outcomes, and research proposal.

Funding for students continuing on to a Ph.D

Current FES MS students seeking to apply to 'new student' funding for their Ph.D program must carefully review eligibility requirements to determine if the funding is for 'new students' or for students 'new to OSU'. Current FES MS students <u>will not</u> qualify for funding designed for students new to OSU. This includes the Provost's Graduate Fellowship. However, FES MS students likely <u>will</u> qualify for funding designed for students new to their programs. This includes the CoF Graduate Fellowship Competition.

If current FES MS students wish to pursue this funding, they must apply to the FES Ph.D program in accordance with funding deadlines. For details of funding deadlines for the current application season, please consult the Grad Coordinator.

TIMELINE FOR MASTER OF SCIENCE (MS) STUDENTS

To ensure timely completion, you are expected to review instructions and begin working on the following requirements weeks (or even months) before the deadline. For a smooth and successful program, decide when you want to graduate and work backward to create a comprehensive schedule and 'to-do' list. Use the timeline below to get started.

Every Spring: Submit FES Assessment of Graduate Student Academic Progress (Pg 19)

• Due annually to the FES Office before June 30th, every year that you are enrolled

1. Form graduate committee (Pg 21)

 Select members in consultation with your major professor before the required Program of Study meeting

2. Conduct Program of Study meeting with your graduate committee (Pg 29)

- Should be done during your 2nd term of enrollment
- Must review Program of Study and learning outcome requirements prior to meeting

3. Submit learning outcomes document (Pg 24)

- Due by the end of your 2nd term of enrollment
- The learning outcomes were referred to as 'competencies' prior to Fall, 2015

4. Submit Program of Study to the department and Graduate School (Pg 29)

- Due to the department by the end of your 2nd term of enrollment
- Must also be submitted it to the Graduate School in accordance with their deadlines

5. Submit research proposal (Pg 32)

- Due by the end of your 3rd term of enrollment
- Must attach fully-signed Research Proposal Approval Form

6. Conduct presentation of research proposal (Pg 32)

- Strongly recommended, but not required
- Details determined by your committee

7. Take final exam / defense (Pg 42)

- Should begin checklist 3-6 months in advance
- Must be scheduled with the Graduate School ahead of time.
- Must ensure FES Representative submits the FES Grad Assessment to the department

8. Submit thesis (Pg 38)

- Defendable draft must be submitted to committee at least two weeks before final exam
- Must be submitted to Graduate School within six weeks after passing final exam or before the first day of the next term, whichever comes first.

9. Finish program (Pg 44)

- Must meet with the Department Head for an exit interview
- Must submit check-out checklist to the FES Department

During your first term, you can work with your major professor and the Grad Coordinator to set different program deadlines. You might be able to extend these deadlines *after* your first term, but don't assume it'll work out without it affecting your satisfactory academic progress.

'Term of enrollment'

This refers to any term in which you register for credits. If you don't register in summer or if you go on a leave of absence, those terms won't count towards program deadlines. If this is the case, notify the Grad Coordinator.

TIMELINE FOR MASTER OF FORESTRY (MF) STUDENTS

To ensure timely completion, you are expected to review instructions and begin working on the following requirements weeks (or even months) before the deadline. For a smooth and successful program, decide when you want to graduate and work backward to create a comprehensive schedule and 'to-do' list. Use the timeline below to get started.

Every Spring: Submit FES Assessment of Graduate Student Academic Progress (Pg 19)

Due annually to the FES Office before June 30th, every year that you are enrolled

1. Form your graduate committee (Pg 21)

• Select members in consultation with your major professor before the required Program of Study meeting

2. Conduct Program of Study meeting with your graduate committee (Pg 29)

- Should be done during your 2nd term of enrollment
- Must review Program of Study and learning outcome requirements prior to meeting

3. Submit learning outcomes document (Pg 24)

- Due by the end of your 2nd term of enrollment
- The learning outcomes were referred to as 'competencies' prior to Fall, 2015

4. Submit Program of Study to the department and Graduate School (Pg 29)

- Due to the department by the end of your 2nd term of enrollment
- Must also be submitted it to the Graduate School in accordance with their deadlines

5. Submit capstone project (Pg 37)

• Details for submission and evaluation determined by major professor and graduate committee

6. Conduct final exam (Pg 42)

- Must schedule with the department office (Grad School scheduling not required)
- Should begin checklist 3-6 months in advance
- Must ensure FES Representative submits the FES Grad Assessment to the department

7. Finish program (Pg 44)

- Must meet with the Department Head for an exit interview
- Must submit check-out checklist to the department

During your first term, you can work with your major professor and the Grad Coordinator to set different program deadlines. You might be able to extend these deadlines *after* your first term, but don't assume it'll work out without it affecting your satisfactory academic

progress.

Part-time student?

'Term of enrollment'

This refers to any term in which you register for credits. If you don't register in summer or if you go on a leave of absence, those terms won't count towards program deadlines. If this is the case, notify the Grad Coordinator.

TIMELINE FOR DOCTORAL (PH.D) STUDENTS

To ensure timely completion, you are expected to review instructions and begin working on the following requirements weeks (or even months) before the deadline. For a smooth and successful program, decide when you want to graduate and work backward to create a comprehensive schedule and 'to-do' list. Use the timeline below to get started.

Part-time student?

Every Spring: Submit FES Assessment of Graduate Student Academic Progress (Pg 19)
 Due annually to the FES Office before June 30th, every year that you are enrolled

1. Form graduate committee (Pg 21)

Select members in consultation with your major professor before the required meeting

2. Conduct required Program of Study meeting with your graduate committee (Pg 29)

- Should be done during your 3rd term of enrollment
- Must review Program of Study and learning outcome requirements prior to meeting

3. Submit learning outcomes document (Pg 24)

- Due by the end of your 3rd term of enrollment
- The learning outcomes were referred to as 'competencies' prior to Fall, 2015

4. Submit Program of Study to the department and Graduate School (Pg 29)

- Due to the department by the end of your 3rd term of enrollment
- Must also be submitted it to the Graduate School in accordance with their deadlines

5. Submit research proposal (Pg 32)

- Due by the end of your 5th term of enrollment
- Must attach fully-signed Research Proposal Approval Form

6. Conduct presentation of research proposal (Pg 32)

- Strongly recommended, but not required
- Details determined by your committee

7. Conduct written and oral preliminary exams (Pg 34)

- Must schedule with the Graduate School at least two weeks ahead of time
- Must ensure FES Representative submits the FES Grad Assessment to the department

8. Take final exam / defense (Pg 42)

- Should begin checklist 3-6 months in advance
- Must be scheduled with the Graduate School ahead of time.
- Must ensure FES Representative submits the FES Grad Assessment to the department

9. Submit dissertation (Pg 38)

- Defendable draft must be submitted to committee at least two weeks before final exam
- Must be submitted to Graduate School within six weeks after passing final exam or before the first day of the next term, whichever comes first.

10. Finish program (Pg 44)

- Must meet with the Department Head for an exit interview
- Must submit check-out checklist to the FES Department

FES PROGRAM REQUIREMENTS | TIMELINE FOR PH.D

set different program

deadlines. You might

be able to extend these deadlines *after*

your first term, but

work out without it affecting your

academic progress.

don't assume it'll

satisfactory

'Term of enrollment'

This refers to any term in which you register for credits. If you don't register in summer or if you go on a leave of absence, those terms won't count towards program deadlines. If this is the case, notify the Grad Coordinator.

GETTING STARTED IN THE FES GRADUATE PROGRAM

New Student Resources

Check out the Graduate School's 'Resources for Newly Admitted Students' webpage for info about your ONID account, health requirements, and more.

GAs, GRAs, & GTAs

If you have an assistantship, you probably need to visit CoF's Human Resources office to finish employment paperwork. Welcome to the Forest Ecosystems and Society graduate program! As a new student, you will need to attend orientation, check in with the department office, and register for classes.

Registering for Classes

Before you register, consult with your major professor to determine which classes you should take during your first term. Our program currently does not require you to take any specific courses, but we strongly recommend your first term includes FES 520: Posing Research Questions. You may also wish to review classes offered by the Graduate School (see the 'GRAD' designator in the course catalog) to help you learn the skills and strategies you will need as a graduate student.

When you are ready, you can register through MyOSU (*myosu.oregonstate.edu*). For registration instructions and troubleshooting, visit the Office of the Registrar's webpage (*oregonstate.edu/registrar/adding-courses-o*).

Check-In

When you have set a date to arrive on campus, contact the Grad Coordinator to notify them and set up a check-in appointment. Appointments usually last 15-30 minutes, and include:

- Getting keys to the building, the mail room, and your office space
- Setting up a College of Forestry network account
- A brief tour of the building, including your office space
- An opportunity to ask any questions you have so far

After completing check-in, you should be able to access the building after-hours, move in to your office, and access college computers, printers and digital storage space.

Orientation

Orientation events sponsored by the FES Graduate Program and by the OSU Graduate School usually occur the week before classes begin. Keep an eye out for e-mails with specific dates, times, and locations for OSU, Graduate School, college and program orientations. You will be notified if attending any orientation is a requirement. Please plan your arrival to Corvallis to accommodate required orientation events. If you absolutely cannot attend, please notify your major professor and the Grad Coordinator.

FES ASSESSMENT OF GRADUATE STUDENT SATISFACTORY ACADEMIC PROGRESS

Required for:

• All FES Graduate Students

Deadlines:

- By June 30th, every calendar year
- Defending students must complete assessment prior to graduation

Basic requirements:

- TURN IN (DEPT): Self-Assessment Narrative
- TURN IN (DEPT): Completion of Milestones (part of assessment packet)
- TURN IN (DEPT): Major Professor Assessment (part of assessment packet)
- TURN IN (DEPT): Signature Sheet (part of assessment packet)

<u>Relevant links:</u>

• FES Current Student Resources: fes.forestry.oregonstate.edu/fes-student-resources

See other section:

Satisfactory Academic Progress: Page 45

Students and their major professors are required to assess and report on the student's academic progress each year. The FES program has an annual process, led by the student, to document academic progress. For every year that you are enrolled, you are required to initiate, complete and submit a FES Assessment of Graduate Student Academic Progress before June 30th.

Early in your program (potentially at your program meeting), you should collaborate with your major professor and committee to establish standards and expectations of satisfactory progress for your program. For a definition of 'Satisfactory Academic Progress', please see Page 45. Please note that the timely submission of the Program of Study form, learning outcomes, and research proposal is required for satisfactory academic progress.

This assessment requires your major professor's participation; however, you are responsible for initiating that participation, supplying materials, and ensuring timely completion. It is strongly suggested (but not required) that you solicit input from other committee members as well.

Failure to complete and submit this assessment annually may prevent you from receiving funding or accessing opportunities available through the department or Graduate School.

Please note: the FES Assessment of Graduate Student Academic Progress is not the same as the FES Graduate Assistant Evaluation. The former reviews student performance, while the latter reviews employee performance.

FES PROGRAM REQUIREMENTS | ASSESSMENT OF ACADEMIC PROGRESS

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Put this in your calendar NOW!

You are responsible for this assessment from start to finish. Your major professor will participate, but it's still on you to make sure this assessment is completed correctly and on time. Start early, work carefully, communicate with your major professor, and get it done.

Already got an assessment?

If your major professor already has a system to annually assess and document your academic progress, you can (with the Grad Program Director's prior approval) submit that by June 30th instead of the assessment detailed here.

How to Prepare and Submit Your Assessment

Please plan to complete the following steps during Spring term.

1. Read the full assessment instructions, including 'Definition of Satisfactory Academic Progress,' 'Plan for Assessment of Graduate Student Satisfactory Academic Progress,' and 'Assessment Procedures & Instructions.'

2. Fill out the 'Completion of Milestones' page of the assessment form. If nothing has changed since your previous assessment, you may copy or otherwise reuse your previous 'Completion of Milestones' page.

3. Write your self-assessment narrative. Before you begin, you may want to discuss your major professor's expectations for your progress and professional development with them. This narrative should summarize activities since your last assessment and plans for the coming year, including:

- Coursework taken and grades received
- Field work, data collection/analysis
- Progress on writing thesis/dissertation/capstone
- Participation in professional development opportunities
- Service to the department and the University
- Description of planned activities and accomplishments for the coming year.
- Any other relevant information, including any impediments to progress

4. Schedule a meeting with your major professor. You or your major professor may request participation from committee members, but it is not required.

5. Meet with your major professor and any participating committee members to review your selfassessment narrative, assess your progress and accomplishments and identify milestones for the coming year. This meeting can be as brief or in-depth as you need, but it is best to include:

- Meaningful feedback on what you are doing well and what you might improve
- Discussion on what you are expected to achieve in the coming year
- An opportunity for you to ask questions about your research or degree requirements
- An opportunity for you to bring up any issues holding you back or causing undue stress
- Notice of any urgent action you might need to take to stay on track

At the end of the meeting, ensure your major professor has completed the 'Major Professor Assessment of Satisfactory Academic Progress' and 'Signature Sheet'. If other committee members provided input, they should sign the 'Signature Sheet' as well.

6. Compile all parts of your assessment into a single packet. This will include 'Completion of Milestones', 'Major Professor Assessment of Satisfactory Academic Progress', 'Signature Sheet', and your self-assessment narrative. Ensure that everything has been completed: all required fields filled, all required boxes checked, all required signatures signed.

7. Submit your completed Assessment of Graduate Student Academic Progress form to the FES office before June 30th each year.

Completed assessments will be filed in the FES office where you or your major professor can review them at any time.

FES PROGRAM REQUIREMENTS | ASSESSMENT OF ACADEMIC PROGRESS

Establishing Expectations

New students (who started in the current academic year) should have set this year's expectations for progress during their first term. Continuing students should have set this year's expectations for progress as part of last year's assessment.

Start in April or May

For best results, finish your narrative and start scheduling meetings early in Spring.

FORMING YOUR GRADUATE COMMITTEE

Required for:

All FES Graduate Students

<u>Deadlines:</u>

- Before undertaking significant coursework or research
- Within first 2 (MS, MF) or 3 (Ph.D) terms of enrollment

Relevant links:

- **Graduate School regulations on graduate committees:** gradschool.oregonstate.edu/progress/graduate-committee
- Graduate Council Representative list generation tool: gradschool.oregonstate.edu/forms
- Graduate Council Representative Guidelines: gradschool.oregonstate.edu/faculty/gcr-guidelines

Your graduate committee is composed of faculty and professionals who have been approved to serve on OSU's Graduate Faculty. Your committee provides you with perspective and expertise that can help you succeed in your graduate program and prepare for a productive career. Since your committee plays a big role in completing the rest of your program requirements, <u>putting it together should be your first priority</u> after enrolling and beginning classes.

Committee Composition

To meet program and Graduate School standards, your committee must:

- Have a minimum of:
 - Ph.D 5 members
 - o MS 4 members
 - MF 3 members
- Include your major professor(s)
- Include a Graduate Council Representative (Ph.D and MS only)
- Include 2 members from FES graduate faculty (one of these will be your FES Representative)
- Include at least 1 member from each minor you have declared

Any remaining members may be from the Graduate Faculty at large.

Including Non-FES Committee Members

You and your major professor may wish to include a committee member who is based in another department, college, university, or even outside of academia altogether. You and your major professor should discuss and agree on the need for such a committee member. Committee

FES PROGRAM REQUIREMENTS | YOUR GRADUATE COMMITTEE

Don't wait to find your GCR

There's a common misconception that you don't need a GCR until you're ready to defend-<u>not</u> <u>true!</u> Your GCR needs to sign your Program of Study, so your Program of Study deadline will be your GCR deadline too. members must meet program and University standards (gradschool.oregonstate.edu/faculty/membership).

Faculty from other OSU departments or colleges or individuals from outside of academia are allowed to serve on your committee if they are a member of OSU's Graduate Faculty. However, if one of your proposed committee members is not approved to serve on graduate committees as a member of OSU's Graduate Faculty, your major professor will need to nominate them and complete the necessary paperwork.

Please contact the Grad Coordinator to see if your proposed committee member needs to be added and to get the process started. It usually takes at least a month to add someone to graduate faculty...do not wait until the last minute!

Committee Meetings

Losing members

Occasionally, circumstances force a committee member to leave before the student graduates. In that situation, you'd likely need to add a new member so that your committee still meets FES and Graduate School standards. After establishing committee membership, you and your committee should discuss and agree on expectations for committee meetings. This discussion should include:

- How often the committee will meet
- How you should prepare for each meeting
- Whether and how you will provide progress reports between meetings
- Scheduling and communication preferences

In order to work around busy faculty schedules, make sure you schedule meetings at least one month in advance. It is typical to schedule them 3-5 months in advance. To schedule a room for your committee meeting, please contact the FES Office as soon as a date has been set.

Roles of Committee Members

Major Professor

Your major professor is the committee member from your major field who serves as your primary academic advisor, your principal thesis/dissertation advisor, and the general mentor for your academic program and research. They will be instrumental in helping you select the rest of your committee members and a valuable source of advice on running effective committee meetings.

You and your major professor should discuss their expectations for your role in the coordination and development of your research and thesis. Most students meet weekly or biweekly with their major professor and submit work relative to their thesis for review and comment on an on-going basis. Students are typically responsible for scheduling meetings, contacting committee members, putting together meeting agendas, preparing any necessary meeting materials, and reserving rooms. You and your major professor may trade off leading committee discussion and activity. Your major professor is responsible for maintaining the scientific rigor and quality of your thesis research. In that capacity, they may require specific actions from you. Your major professor may advise or assist, but it is up to you to get the work done! For more information on interacting with your major professor, please see Page 57.

Minor Professor (if applicable)

Your minor professor represents your minor department or field, if you have declared one. They are responsible for maintaining the quality and rigor of your work in the minor field. This person must be an approved Graduate Faculty member in the minor department/program. If you have an "integrated" minor, your minor professor cannot be from your major department/program but must be from one of the departments/programs represented by the courses in the minor.

Graduate Council Representative

All Ph.D and MS students are required to include a Graduate Council Representative (Grad Rep or GCR) on their committee. It is best to treat your GCR as a regular member of your committee.

Your GCR represents the OSU Graduate Council and ensures that all rules governing committee procedures are followed and that you are treated fairly during your exams. Your GCR must be present at your formal exam(s), and will be responsible for some of the paperwork that the Graduate School requires. Per Graduate School guidelines, they will also lead your committee's roundtable discussion following your final exam.

Your GCR must be a graduate faculty member outside your major and minor area. Select your GCR using the online GCR list generation tool (*gradschool.oregonstate.edu/forms*). If none of the potential GCRs generated on the first list are available, you can re-generate the list until you find someone who is willing to serve. GCRs can be selected to provide disciplinary expertise as well. You and your committee, including the GCR, can determine the extent to which the GCR participates in your research.

FES Representative

Every FES graduate committee must include at least one FES-employed professor who regularly participates in the department and has up-to-date knowledge on department policies and procedures. If your major professor fits this definition, they can serve as your FES Representative. Your FES Representative is responsible for keeping you and your non-FES committee members informed about program requirements and any pertinent policy changes. Select a FES Representative who regularly attends department meetings - if you select a FES Representative who doesn't stay updated, you may miss out on vital information.

Your FES Representative is also responsible for conducting the required FES Grad Assessment (see Page 24) at your formal exam(s) and turning it in to the department office. It is a good idea to make sure your FES Representative knows about and understands this task. The FES Grad Assessment is required for all students, and if your committee does not do it during your exam(s), it can be very difficult to put together after the fact.

Experts in Biophysical and Social Science

Given that FES is an interdisciplinary program with interdisciplinary learning outcomes, it is strongly suggested that your committee include at least one member who focuses on biophysical science and one member who focuses on social science. Ideally, these committee members will have knowledge and experience that relate to (and benefit your study of) your research area.

willing to be on your

committee, it's okay

to skip the list.

Already know a

GCR?

FES GRADUATE LEARNING OUTCOMES

Competencies = Learning Outcomes

Prior to Fall 2015, the FES Learning Outcomes were referred to as 'Competencies.'

<u>Required for:</u>

• All FES Graduate Students

Deadlines:*

- **MS:** by the end of your 2nd term of enrollment
 - **MF:** by the end of your 2nd term of enrollment
- **Ph.D:** by the end of your 3rd term of enrollment

*Students who are restricted from full course loads may negotiate a longer time frame in consultation with the program director and their major professor.

Basic requirements:

- TURN IN (DEPT): Learning outcomes coversheet
- TURN IN (DEPT): Learning outcomes plan

<u>Relevant Links:</u>

- FES Student Resources (Coversheet & Samples): fes.forestry.oregonstate.edu/fes-student-resources
- OSU's Graduate Learning Outcomes: gradschool.oregonstate.edu/faculty/program-assessment

Pair it with your Program of Study

It's best to draft and discuss your Learning Outcomes and Program of Study form at the same time. The choices you make for each document will impact the other...but more than that, doing them at the same time cuts down on the committee meetings you need to schedule! Every graduate student at Oregon State University must meet OSU's Graduate Learning Outcomes as well as the graduate learning outcomes defined by their graduate degree program. The FES graduate program has 8 learning outcomes defining the skills, abilities, and knowledge you should be able to demonstrate before you can graduate. These are described on Page 27. As part of your FES Learning Outcomes requirement, you must write a plan that defines a set of unique goals for each learning outcome and describes what you will be able to do as a result of meeting these goals. We recommend you develop and get approval on your FES Learning Outcomes and Program of Study form at the same time. Both will include information relevant to the other, and both will rely on your committee's participation.

Submit your completed learning outcomes plan (and signed coversheet) to the Grad Coordinator by the deadline above. Your committee will use your completed plan throughout your program and at your formal exam(s) to assess your progress on your learning outcomes.

Assessing Progress on Learning Outcomes

During your formal exam(s), each committee member will review your learning outcomes plan and use evidence from the exam to decide whether you have met the established expectations. Although it is preferable for your committee to use material from your exam to make that decision, they can use other evidence for areas that would not reasonably be addressed during your exam.

The FES Grad Assessment documents whether you have met the goals defined in your plan. When your exam ends, the FES Representative on your committee will use the round table evaluation to fill out the FES Grad Assessment and get all necessary initials and signatures. If you have not met

For Ph.D students...

Ph.D students will have two FES Grad Assessments – one at their preliminary exam and one at their final exam. This applies even if the student has already met their learning outcome goals by their prelim. established expectations on your learning outcomes at the preliminary exam stage your committee may require you to take remedial action. However, failing to meet expectations on your learning outcomes will not necessarily affect whether you pass your exam(s).

Immediately after your exam, your FES Representative must submit your completed FES Grad Assessment to the Grad Coordinator.

Your Graduate Representative is responsible for collecting input from all committee members on how well you met the OSU Graduate Learning Outcomes.

Writing your FES Learning Outcomes Plan

Process

To fulfill your FES Learning Outcomes requirement, the following must be completed:

- 1. Discuss the FES Learning Outcomes with your major professor and committee members. Ensure your committee understands the FES Learning Outcomes and what you want to accomplish, both during your program and after you graduate.
- 2. Use committee input to draft your plan and provide it to your committee for review.
- 3. Use committee feedback to revise your plan until your committee verbally approves it.
- 4. Fill out the Learning Outcomes Coversheet, sign it, and get your major professor's signature. You do not need the FES Department Signature yet.
- 5. Attach your plan to the coversheet and submit it to the Grad Coordinator.
- 6. The Grad Coordinator will review your plan and submit it to the Graduate Program Director.
- 7. If the Graduate Program Director approves, they will sign it and return it to the Grad Coordinator. If changes need to be made, the Grad Coordinator will return your plan without the Graduate Program Director's signature and ask you to complete revisions.
- 8. When the Graduate Program Director signs your plan, the Grad Coordinator will provide you with a digital copy and save a copy to your file.
- 9. Your committee will assess your progress on your plan during your formal exam(s).

Committee Participation

Before drafting your plan, seek input from your committee members, either individually or in a formal meeting. Discuss how each learning outcome can be applied to your research area and career goals. Consult committee members with first-hand knowledge of your desired career path about how you can make yourself competitive in the hiring process. Are there basic skills or experiences that employers expect all applicants to have? Are there additional skills or experiences that would make you a more attractive hire, or that would help you advance more quickly after you were hired? Ask your committee what should be on your CV when you graduate, and craft your plan to account for it.

Your committee should verbally approve your plan when it is completed, but do not need to sign it.

Each of the 8 learning outcomes has bullet points describing what that learning outcome entails. For each bullet point, write at least 1 statement describing the specific goals you need to meet in that area. Each statement must include...

- The skills, abilities, or knowledge you need to develop before you graduate
 - o Should take your research area, degree level, and/or desired career into account.
 - Can include skills/knowledge you have already developed.
 - **Example:** "I will be able to evaluate the appropriateness of statistical methods and identify and apply appropriate methods to analysis of survey research data."

• How you will develop the skills/knowledge

- Can include experience and activities undertaken as part of your coursework, research, professional development, department service, etc.
- Can include experience and activities you have already completed
- FES will not penalize you if you develop your skills/knowledge in a different way than you described in your statement.
- **Example:** "I will take FES 523: Quantitative Analysis in Social Science and complete coursework with an emphasis on an applied approach to statistical analysis, focusing on understanding data, selecting appropriate statistics for theoretical and managerial problems, using statistical software for analyses, and interpreting findings."

• The observable actions you will be able to perform as a result

- Must be 'testable', i.e. your committee must be able to ask you to perform the action or see direct evidence that you have successfully performed the action.
- Can include actions that you can already perform.
- Should describe an ability you will use after you graduate, <u>not</u> something you accomplished once while developing the ability. Saying, "I lived in the field for two weeks," does not tell us what you can do as a result of that experience, whereas "I will be able to develop protocols for obtaining quality data while under primitive field conditions," does tell us what you can do.
- **Example:** "I will be able to explain the most common and effective statistical methods used to analyze survey data, compare the efficacy of different methods for a given situation, identify the most effective method for a given situation, explain why the selected method is preferable to other options, and describe how that method would be applied."

Please read on for important advice on crafting acceptable statements. You may also review full examples of acceptable FES Learning Outcomes on the FES Current Students website (http://fes.forestry.oregonstate.edu/fes-student-resources).

Things to Avoid

Avoid vague verbs that would be difficult to observe or measure and do not describe a demonstrable action. Verbs such as...

- Understand
- Appreciate
- Know about
- Become familiar with

- Learn about
- Become aware of

Brainstorming

Search 'Bloom's Taxonomy' online and use those words to help you brainstorm and write your plan. ...are too broad and unspecific for your committee to assess when you are finished. For example, how would your committee measure whether you have "become familiar with" a particular tool, or whether you are done 'learning about' a particular topic? Instead of 'understanding' something, think more closely about what you want to be able to do or produce as a result of your 'understanding'.

Again, be sure that you describe what you will be able to DO, and not HOW you will achieve the learning outcome. Avoid phrases such as...

- I will successfully complete GRAD 520: Responsible Conduct of Research
- I have been in charge of research
- I was a TA for FOR 345

These do not explain what you can do, and only describe how you have/will obtain the necessary cognitive skills. However, phrases such as...

- I will be able to define and recognize plagiarism
- I will be able to devise appropriate sampling plans to estimate vegetation cover
- I will be able to evaluate the quality of answers to biology lab questions

...describe what you would be able to demonstrate after the previous experiences.

The 8 FES Learning Outcomes

The explanations below are meant as general guidelines. Students and graduate committees may interpret these in a manner suitable to the student's area of study and level of advancement.

Disciplinary skills and knowledge

- Knowledge of a student's chosen field of study
- Knowledge of closely related fields, including history and trends in major findings, concepts, theories, approaches, and context.

Interdisciplinary collaborative problem solving

- Situate environmental issues into appropriate biophysical and social contexts and identify disciplines necessary to address the problem.
- Collaborate in interdisciplinary teams, e.g. listen to, give and receive constructive feedback, define divisions of labor, set goals and milestones, actively work to see problems from multiple perspectives, understand group dynamics including issues around providing and accepting leadership, member responsibilities and peer-to-peer communications.
- Provide disciplinary expertise to an interdisciplinary team.
- Articulate ideas that transcend contributing disciplines; identify commonalities and conflict among disciplines; devise approaches that support commonalities and reduce conflicts

Communication skills (oral, written, professional)

- Effectively interact (write, speak and listen) with diverse audiences in an organized and clear fashion about areas of expertise in oral, written or electronic formats.
- Explain information from one discipline to researchers in other relevant disciplines and communicate research to scientific and non-scientific audiences.

Critical thinking and critical awareness skills

- Discern between, and infer consequences of multiple perspectives.
- Evaluate the quality, context, scale, and biases in information, and synthesize diverse types of information, in written and oral forms.
- Effectively participate in real-time discussions of biophysical and social systems and their interactions.
- Understand the application of methods and knowledge from one discipline to another.

Research skills

- Demonstrate facility with the research methods appropriate for the area of study.
- Understand the use of quantitative and qualitative summaries of data as evidence for conclusions and scientific inference. This can include skills and knowledge needed to plan, implement, analyze and interpret research.

Research ethics and responsibilities

- Knowledge of processes and guidelines for assuring that research is conducted in socially and professionally acceptable and legal ways, while minimizing and managing conflicts of interest. Topics of relevance may include:
 - Responsible conduct of research
 - o General ethics
 - o Peer review
 - o Bias during data analysis and presentation
 - o Animal welfare
 - o Treatment of human subjects
 - Collaboration, authorship, and plagiarism

Policy analysis/interpretation

Understand the role of laws, regulations, social institutions, and governance processes relevant to application of a student's areas of study.

If pursuing a career in academia...

For students wishing to pursue careers in academia, the following learning outcomes for teaching may be applicable:

- Understand contemporary pedagogy, relevant STEM teaching methods and experience in their application in classroom, online, and technical/professional learning environments.
- Develop a classroom and/or online course, including development of a syllabus which includes learning outcomes, classroom activities, assignments and assessment and evaluation methods.

FILING A PROGRAM OF STUDY FORM

Required for:

• All FES Graduate Students

Deadlines:*

- **MS:** by the end of your 2nd term of enrollment
- **MF:** by the end of your 2nd term of enrollment
- **Ph.D:** by the end of your 3rd term of enrollment

*Students who are restricted from full course loads may negotiate a longer time frame in consultation with the program director and their major professor.

Basic requirements:

- **MEETING:** Formal Program of Study meeting with your committee
- TURN IN (GRAD SCHOOL): Doctoral Program Meeting Checklist (Ph.D Only)
- TURN IN (DEPT): Program of Study form
- TURN IN (GRAD SCHOOL): Program of Study form

Relevant links:

- Graduate School Forms (Program of Study form, Doctoral Program Meeting Checklist): gradschool.oregonstate.edu/forms
- Graduate School Deadlines: gradschool.oregonstate.edu/progress/deadlines
- About the Program of Study (Graduate School Website): gradschool.oregonstate.edu/progress/program-study
- Graduate School Catalog: catalog.oregonstate.edu/Default.aspx?section=Graduate

Pair it with your Learning Outcomes

Required to proceed

You can't schedule

your prelims or final exam until your

Program of Study has

the Graduate School

been approved by

It's best to draft and discuss your Learning Outcomes and Program of Study form at the same time. The choices you make for each document will impact the other...but more than that, doing them at the same time cuts down on the committee meetings you need to schedule! Early in your graduate program, you are required to have a formal Program of Study meeting with your entire committee (including your GCR). As part of this meeting, you will complete and get signatures on your Program of Study form. Your Program of Study is a contract between you and your committee that records the courses that will comprise your degree program. Once your Program of Study form is complete and signed by you, your major professor(s) and your committee members, you will submit it to the FES Grad Coordinator for departmental approval. After your Program of Study form is returned to you with the Graduate Program Director's signature, you will submit it to the Graduate School. Submission to both the department and the Graduate School must be done in accordance with their respective deadlines.

How to Draft and Submit Your Program of Study

Got the latest form?

The Graduate School periodically updates the Program of Study form. Check the 'Forms' page on their website to make sure you have the latest version.

Different deadlines

The Graduate School's deadline to submit the Program of Study form may be different than FES' deadline. Make sure you know and abide by both deadlines! **1. Schedule** the required Program of Study meeting_with your committee. This is likely the first time the committee will meet as a group. To ensure full attendance, get this meeting on your committee members' calendars 2-5 months in advance and send a reminder 4-7 days before the meeting takes place. Contact the FES Department Office to reserve a room as soon as the date and time has been set.

2. Review the rules on the Program of Study form and in the Graduate Catalog (see 'Relevant Links' above) and discuss any initial questions with your major professor. If you are a Ph.D student, review the Doctoral Program Meeting Checklist.

3. Fill out a 'draft' Program of Study form in consultation with your major professor to use in discussion during the Program of Study meeting.

4. During the Program of Study meeting with your committee, finalize a course list for your program that will support your research and satisfy the rules and restrictions on the Program of Study form. Obtain agreement from all your committee members on the list of courses. If the form cannot be finalized and signed by all members at the meeting, develop a plan to obtain the signatures.

5. Submit your Program of Study form to the Grad Coordinator once the form is signed by everyone except the Academic Unit Chair and the Graduate School. If your Program of Study form contains errors, it will be returned to you for corrections. If there are no errors, the Grad Coordinator will obtain the Academic Unit Chair's signature and return the form to you.

6. Submit your completed Program of Study form to the Graduate School in accordance with their deadlines.

Helpful Tips

The Program of Study form can be complex and potentially even confusing. Below are some tips that will help you fill out the form correctly. If you have questions that your major professor cannot answer, contact the Grad Coordinator.

Graduate Standalone Courses

Graduate standalone courses are courses that are **only** offered at the graduate level. Undergraduate courses and courses offered with an undergraduate component (also known as 4xx/5xx or slash courses) cannot be counted as graduate standalone. If a course does not count toward the Graduate School standalone requirements, it will sometimes say so in the Graduate Catalog.

Slash Courses

Slash courses are offered at both the undergraduate and graduate level at the same time. Slash courses do **not** count as graduate standalone. To see if a class counts as a slash course, search for it in the Graduate Catalog at both the 500 and 400 level. If the class (such as FES 477/577) exists at

FES PROGRAM REQUIREMENTS | PROGRAM OF STUDY

both levels, is taught at the same time on the same day, and has almost identical descriptions, it is a slash course. Slash courses can account for *maximum* 50% of the credits on your Program of Study.

Blanket Credits

Thesis, not blanket

Thesis credits look like they should be blanket credits, but they're not! Blanket credits are typically received from seminars or reading and conferences courses such as FES 505, 605, 507, and 607, and usually have a 0 in the middle of the course designator. Thesis, project and special topics credits (503, 603, 606, 599, 699) do **not** count as blanket credits. If you are not sure if a course counts toward blanket credits, check the Graduate Catalog, ask the course instructor, or ask the Graduate Program Director. Blanket credit courses also count as graduate standalone courses. On the Program of Study form, Ph.D students may not list more than 15 blanket credits and MS students may not list more than 9 blanket credits.

Thesis Credits

Thesis credits do **not** count as blanket credits on your Program of Study form, but they **do** count as graduate standalone courses. On the Program of Study form, Ph.D students must list minimum 36 thesis credits (FES 603) with no maximum, provided other credit requirements are met. MS students must list between 6 and 12 thesis credits (FES 503).

Unusable Credits

Take other courses

You can take classes without putting them on your Program of Study form. The Graduate School will not accept the following courses on your Program of Study:

- Undergraduate courses (1xx, 2xx, 3xx, 4xx) without a slash (5xx) component
- Audited courses
- Courses graded S/U or credit/no credit
- Courses graded lower than C (including C-)

Miscellaneous

- Your 'Academic Home' and 'major' are both 'Forest Ecosystems and Society'.
- Do not forget to fill in the 'Ethical Research Training' box. Please consult with your committee to determine the best way for you to meet this OSU Learning Outcome.
- **MF students**: In the 'Capstone' section, only fill out the 'Non-Thesis Project...' box.
- **MS students:** In the 'Capstone' section, do not fill out the 'Non-Thesis Project...' box, even if it lists course numbers that you are taking.
- Make sure that all members of your committee are on OSU graduate faculty (or are pending approval) before you submit your Program of Study to the Graduate School. (See Page 29.)
- If you are listing courses taken at another institution (not OSU) on your Program of Study, you should prepare and submit a Transfer Credit Request form at the same time.
- Ph.D students often list courses that they took as an MS student on their Ph.D Program of Study. This is allowed as long as the courses meet OSU's rules of inclusion.

Changing your Program of Study

To change your Program of Study, submit a Petition for Change in Program.

FES PROGRAM REQUIREMENTS | PROGRAM OF STUDY

RESEARCH PROPOSAL

Required for:

- MS students
- Ph.D students
- MF students suggested, but not required!

<u>Deadlines:*</u>

- **MS:** by the end of your 3rd term of enrollment
- **Ph.D:** by the end of your 5th term of enrollment

*Students who are restricted from full course loads may negotiate a longer time frame in consultation with the program director and their major professor.

Basic requirements:

- TURN IN (DEPT): Research Proposal
- TURN IN (DEPT): Research Proposal approval form

<u>Relevant Links:</u>

- FES Student Resources (Research Proposal Approval Form):
 - fes.forestry.oregonstate.edu/fes-student-resources

Research is at the heart of the FES MS and Ph.D degree programs and provides the basis for your thesis. As part of your program, you will work closely with your major professor and (usually) other committee members to create a formal research proposal for your thesis/dissertation work. You are required to file your initial proposal with the department in accordance with program deadlines. A formal presentation of the proposal may also be required at the discretion of your committee.

Proposal

Change it later

Research proposals often evolve over time, so it is expected that the proposal you submit to the department will differ somewhat from the final plan for your research. If your proposal does change, there is no need to notify the department or resubmit the new version. Your research proposal documents the research that forms the basis of your thesis and demonstrates that you progressing towards completion of your degree. Your major professor and committee will help you determine what your research proposal needs to include, how long it needs to be, how much detail it should have, and what format it should be in. A general rule of thumb is to write your proposal as though you were applying for a research grant and include your research question, your methods, and your timeline. It is important that you clearly document all the work you are proposing to do as part of your thesis in the proposal.

It is a good idea to solicit frequent feedback from your committee as you draft and revise your proposal to make sure you are on the right track. After your major professor and committee approve your proposal, submit it (with the fully-signed approval form) to the Grad Coordinator.

Presentation

Before you begin your research, your research proposal should be critically examined and reviewed by a wider group. To achieve this, your committee may require you to formally present your research proposal in whatever format they deem most beneficial to you.

Most new graduate students in FES present their proposed research as a poster at the College of Forestry's annual Western Forestry Graduate Research Symposium held every spring. However, your major professor may require a more formal seminar-style presentation.

PRELIMINARY EXAMS

Register for credits

Make sure you're meeting Continuous Enrollment standards when you take your prelims.

Required for...

• Ph.D students

<u>Deadlines:</u>

- After completing Ph.D coursework, before beginning significant research
- At least one complete academic term (but no more than 5 years) before your final exam
- Must submit required materials to the Graduate School at least two weeks in advance

Basic requirements:

- TURN IN (DEPT): FES Grad Assessment
- TURN IN (GRAD SCHOOL): Exam Scheduling Form

Relevant links:

- FES Student Resources (FES Grad Assessment): fes.forestry.oregonstate.edu/fes-student-resources
- Graduate School Forms (Exam Scheduling Form): gradschool.oregonstate.edu/forms
- Graduate School Required Examinations: gradschool.oregonstate.edu/progress/required-examinations
- Graduate School Catalog: catalog.oregonstate.edu/Default.aspx?section=Graduate

Learning Outcomes

Your committee will assess your progress on the expectations established in your learning outcomes during your oral preliminary exam. See Page 24 for more information. Ph.D students must pass a comprehensive preliminary examination (prelims) to determine their understanding of their major and minor fields and assess their capability for research. In FES, prelims consist of both: (a) a written exam (conducted first) and then (b) an oral exam at a later date.

Your major professor and committee will determine when you are ready for your prelims, how you should prepare, and how your prelims will be formatted. Most students begin scheduling and preparing for their prelims 3-6 months before they take place to allow adequate study time. Pending committee approval, you should plan to conduct your prelims when you are close to completing the courses on your Program of Study.

Potential Outcomes

Potential written exam outcomes are 'Passing', 'Not Passing', and 'Fail'. If you receive a 'Passing' outcome, you officially become a Ph.D candidate. If you receive a 'Not Passing' outcome, you may be permitted to retake the exam once at a date set by your committee. If you receive a 'Fail' outcome, there will be a discussion with you, your major professor, and the Graduate Program Director about the direction of your program.

Written Preliminary Exam

Schedule the oral exam first

It's usually necessary to schedule your oral exam before you pass your written exam – if you don't pass your written exam, your oral exam will need to be rescheduled. Before you take your written exam, you must complete most of the courses on your Program of Study and receive a 'go-ahead' from your major professor and committee. Unlike your oral exam, you do not need to schedule your written exam with the department or Graduate School. You must take and pass your written exam within a short time before you take your oral exam. Your written exam can be conducted in one of two ways:

In the first option, your committee will submit questions to your major professor, who then gives you a cumulative 40 hours to answer them. Testing time is constrained to no more than 8 hours each day, and may not exceed 10 business days. There are no specified minimums for number of day or hours within a day.*

In the second option, your committee selects a research topic (unrelated to your dissertation research) and gives you one month to write and submit a full research proposal.

In both of these options, your major professor and committee will determine the details, including:

- The content of the written exam
- Whether it will be open book, closed book or a combination
- Where you will take your written exam
- Whether someone will proctor your written exam
- The format of your responses

After completing your written exam, your major professor and committee will review the results and determine whether you pass. If you pass, you can proceed to your oral exam.

*Current Preliminary Written Exam testing period policies were voted into effect Spring, 2016. Ph.D students who first enrolled *after Spring 2016* must adhere to the policy above. However, Ph.D students who first enrolled *in Spring 2016 or earlier* may choose to follow the previous policy instead: a testing period of cumulative 24 hours, spread over several days with no set maximum or minimum hours per day or days in the testing period.

Oral Preliminary Exam

Graduate School requirement

The oral prelim is a Graduate School requirement as well as a program requirement. Make sure you understand the Graduate School's rules and deadlines well before the exam takes place. Per Graduate School requirements, your oral exam will test your knowledge of your major and minor (if applicable) subjects and may cover your proposed research topic, although no more than half the time should be devoted to specific aspects of your proposed dissertation work. The exam should be scheduled for at least 2 hours. The most common timeframe is 3 hours, but it could be longer.

Before you take your oral exam, you must complete most of the courses on your Program of Study, pass your written exam, and receive a 'go-ahead' from your major professor and committee. Unlike your written exam, your oral exam must be scheduled with the department <u>and</u> the Graduate School at least 2 weeks prior to the exam.

The Graduate School will send their required paperwork to your GCR prior to your exam. Your FES Representative can access the required FES Grad Assessment on the FES website. Prior to your exam, you must provide a copy of your learning outcome plan for each member of your committee.

FES PROGRAM REQUIREMENTS | PRELIMINARY EXAMS

Your Oral Exam Timeline

After the exam

It's a good idea to confirm that your GCR and FES Representative submitted they paperwork they were responsible for right after the exam.

At least 3 months before the oral exam

- Check to make sure you have successfully completed and submitted your learning outcomes plan and your Program of Study. Both are required before you can schedule your oral exam.
- Work with your major professor and committee to determine how you should prepare.
- Decide a date, time, and place for your exam that works for your committee
- Contact the Grad Coordinator to reserve a room

At least 2 weeks before the oral exam

- Submit the Exam Scheduling Form (see 'Relevant Links' above) to the Graduate School. (MUST be done at least 2 weeks before exam!)
- Remind your committee members of the date, time, and place of your oral exam.

At least 1 week before the oral exam

- Prepare copies of your learning outcomes plan for all your committee members.
- Make sure your FES Representative is prepared to conduct the required FES Grad Assessment. (See Page 24)
- Make sure that your GCR has received paperwork from the Graduate School.
- Make sure all committee members have a copy of your written exam (questions and your answers)

FES PROGRAM REQUIREMENTS | PRELIMINARY EXAMS

CAPSTONE PROJECT

Required for:

• MF students

<u>Deadline:</u>

• Prior to your final exam

Basic requirements:

• **COMPLETE:** Capstone project

Your capstone project culminates in a written document that will demonstrate the work you have done and the skills and knowledge you have learned throughout your program. You will determine the details of your project with your major professor and committee, including how your project will be structured, the length and format of the write-up/report, and when it should be completed.

As part of your final exam, you will present and be questioned about your capstone project.

You are not required to submit your capstone project to the department or the Graduate School. By giving you the go-ahead for your final exam, your major professor and committee signify that you have completed your capstone project to their approval.

THESIS/DISSERTATION

Coordinating deadlines

The process and deadlines for your final exam and the submission of your thesis/dissertation are reliant on each other. Make sure you understand the deadlines and requirements for both well in advance!

<u>Required for:</u>

- MS students
- Ph.D students

<u>Deadlines:</u>

- Pretext pages and final draft due at least 2 weeks before your final exam
- Completed thesis/dissertation due within 6 weeks after your final exam or before the first day of the next term, whichever comes first

Basic requirements:

- TURN IN (DEPT/GRAD SCHOOL): Thesis/Dissertation
- TURN IN (DEPT/GRAD SCHOOL): Abstract
- TURN IN (GRAD SCHOOL): ETD Submission Approval Form

Relevant links:

- Graduate School Thesis Guide:
 gradschool.oregonstate.edu/progress/thesis-guide
- Graduate School Forms (ETD Submission Approval Form): gradschool.oregonstate.edu/forms
- Graduate School Catalog: catalog.oregonstate.edu/Default.aspx?section=Graduate
- Graduate School Deadlines: gradschool.oregonstate.edu/progress/deadlines

An acceptable thesis/dissertation demonstrates that you have met one of the OSU learning outcomes: the production and defense of an original significant contribution to knowledge (Ph.D) or the production or conductance of research or another form of creative work (M.S.).

Your thesis/dissertation should demonstrate your ability to plan, conduct, analyze, and communicate your research in a format consistent with all Graduate School requirements (see 'Relevant Links' above. Your thesis/dissertation must be approved by your major professor, the Department Head or Graduate Program Director, and the Dean of the Graduate School before you can graduate.

Expectations & Requirements

You must be enrolled for a minimum of 3 credits during the term in which you take your final exam and submit your thesis/dissertation.

Before you begin formatting your thesis/dissertation, review the Graduate School's Thesis Guide (see 'Relevant Links' above) and discuss expectations and requirements with your major professor and committee. Given that your thesis/dissertation is a representative product of the work you conducted in an interdisciplinary graduate program, it is strongly recommended (especially for Ph.D

FES PROGRAM REQUIREMENTS | THESIS / DISSERTATION

students) to include a section that grapples with integration, synthesis, and implications of the biophysical and social dimensions of your research.

You are expected to produce 2-4 publications from your thesis/dissertation depending on your degree type. Discuss publication prospects with your major professor early in your academic tenure to determine what you should submit for publication and whether you should submit these publications before or after you defend.

Deadlines

When scheduling your final exam, please consider that your final thesis/dissertation must be submitted to the Graduate School within 6 weeks after your exam or before the first day of the next term, whichever comes first. Your final thesis/dissertation must include any revisions your committee requests during your final exam. If you schedule your final exam late in the term, you may not have 6 full weeks before your thesis/dissertation must be submitted. Please schedule your final exam to allow enough for you to make changes and submit your thesis/dissertation within the same term. The alternative is to register for the following term.

If you are defending in Spring term and wish to attend the spring Commencement, deadlines for final thesis/dissertation submission are typically much earlier. You can double-check deadlines on the Graduate School webpage (see 'Commencement Deadlines' near the bottom of the page).

Submission and Approval

After you pass your final exam, you will begin the process to get your thesis/dissertation submitted and approved. These instructions discuss the FES part of this process, but **there is more to do!** Review the Thesis Guide on the Graduate School website to keep track of the rest of your thesis/dissertation deadlines and requirements.

At least 2 weeks before your final exam, distribute the defendable final draft of your thesis/dissertation to your committee and deliver your pretext pages to Julie Kurtz at the Graduate School (*Julie.Kurtz@oregonstate.edu*).

Right after your final exam, revise your thesis/dissertation using feedback from your committee.

Within 6 weeks after your final exam (or before the first day of the next term, <u>whichever comes</u> <u>first)</u>, obtain signatures on the ETD Submission Approval form (see 'Relevant Links' above) and submit your completed thesis/dissertation to ScholarsArchive.

Completing the ETD Submission Approval Form

The ETD Submission Approval form must be submitted to the Graduate School when you submit your completed thesis/dissertation. Before submitting the ETD form, it needs signatures from you, your major professor, and the Department Head – you do not need the Dean of the Graduate School's signature.

Finishing your program

Review the FES Checkout Checklist before you submit your thesis to make sure you know what you need to do before you leave OSU for the last time. Some tasks may need a little preparation! If you can't do the exit interview...

If scheduling doesn't permit you to do the exit interview before your submission deadline, contact the Grad Coordinator to set up an alternative. Above all, don't just 'drop in' for a signature at the last minute without confirming that the Department Head will be in the office and able to sign. To get the Department Head's signature, follow these steps:

- Contact the Grad Coordinator to schedule your exit interview with the Department Head. Your exit interview should happen after you complete thesis/dissertation revisions, but before your submission deadline.
- Complete your thesis/dissertation revisions.
- At least 1 week before your exit interview, e-mail a digital copy of your fully-revised thesis/dissertation and abstract to the Grad Coordinator. If you cannot complete revisions by then, e-mail your abstract to the Grad Coordinator and follow with your fully-revised thesis/dissertation as soon as it is completed.
- Fill out the Electronic Thesis/Dissertation (ETD) Submission Approval form (see 'Relevant Links' above), sign it, and get your major professor's signature.
- Bring your ETD form to your exit interview with the Department Head and obtain her signature.

Remember: the Department Head will not sign your ETD form if you have not completed all program requirements.

Resources

Some see preparing their thesis/dissertation as a solitary act, but there are many resources available to help you put together your best work. Explore these resources early so that you know exactly where to go when the going gets tough.

Thesis Guide

Review the online Thesis Guide (*gradschool.oregonstate.edu/progress/thesis-guide*) to stay on top of the Graduate School's thesis/dissertation rules and deadlines. The Thesis Guide also links to a formatting guide, a template, an electronic submission guide, and the Electronic Thesis/Dissertation (ETD) Submission Approval form.

Formatting Your Thesis in MS-Word: How to Win the Battle

This workshop is held every term by the Forestry Computing Help Desk. Topics include table of contents, table of tables and table of figures, page layout settings, section breaks, creating custom styles, mixing portrait and landscape pages in same document, and a template to help get you started. Watch for an e-mail announcing the next session or check the webpage (*helpdesk.forestry.oregonstate.edu/training*) to register.

Thesis Editor

If the Thesis Guide does not answer your questions, you can contact the Graduate School's thesis editor for information about formatting, deadlines, submission, or copyrights. The current Thesis Editor is Julie Kurtz (Julie.Kurtz@oregonstate.edu).

Start with the right formatting

The Graduate School has strict formatting rules. Review the Thesis Guide and take the workshop early in the writing process – it can be a real headache to try to reformat later.

Your Major Professor

Establish a clear plan with your major professor to regularly send drafts and receive and implement feedback. Their experience with your subject matter makes them your most valuable collaborator and editor. Make sure you budget enough time into your writing schedule to allow your major professor to read and comment on multiple drafts of your thesis.

Your Graduate Committee

Your committee should be familiar with your thesis/dissertation well before you send them the defendable copy two weeks prior to your final exam. Use their perspective to strengthen your work and to counter questions or concerns before they pose a problem. Work with each committee member to establish when and how they will participate in the feedback and review process. Be sure you budget time into your schedule to allow adequate input from committee members.

FINAL EXAM

Coordinating deadlines

The process and deadlines for your final exam and the submission of your thesis/dissertation are reliant on each other. Make sure you understand the deadlines and requirements for both well in advance!

<u>Required for:</u>

All FES Graduate Students

Deadlines:

- Must be held early enough to meet all subsequent deadlines before graduating
- Preparatory and scheduling materials must be completed and submitted in accordance with the firm deadlines described in the Final Exam Timeline (see below).

Basic requirements:

- TURN IN (DEPT): FES Grad Assessment
- **TURN IN (GRAD SCHOOL):** Exam Scheduling Form (at least two weeks before exam)
- TURN IN (GRAD SCHOOL): Diploma Application (at least two weeks before exam)

Relevant links:

- Graduate School Required Examinations: gradschool.oregonstate.edu/progress/required-examinations
- FES Student Resources (FES Grad Assessment): fes.forestry.oregonstate.edu/fes-student-resources
- Graduate School Forms (Exam Scheduling Form, Diploma Application): gradschool.oregonstate.edu/forms
- Graduate School Deadlines: gradschool.oregonstate.edu/progress/deadlines
- Graduate School Catalog: catalog.oregonstate.edu/Default.aspx?section=Graduate
- **Commencement:** gradschool.oregonstate.edu/progress/commencement

In order to be eligible for your final exam:

- You must have a minimum Program and cumulative GPA of 3.00
- You must have completed all coursework on your Program of Study with at least a "C".
- You must submit your exam scheduling form and diploma application to the Graduate School at least two weeks in advance.
- At least one complete academic term must have passed since you passed your preliminary oral exam.

Your graduate committee may have additional requirements before you are permitted to proceed.

The final phase of your degree is like setting up a row of dominos. You need to accomplish a long string of related tasks that begin *months* before your final exam. If you do not prepare well, the tasks that you missed or did late will prevent you from graduating on time. **Decide what term you want to graduate, carefully review all the requirements and deadlines, and work backward to create your timeline.** If you stick to that timeline, everything should fall into place.

FES PROGRAM REQUIREMENTS | FINAL EXAM

Finishing your program

Review the FES Checkout Checklist before you submit your thesis to make sure you know what you need to do before you leave OSU for the last time. Some tasks may need a little preparation! Your final exam starts with a public presentation of your thesis/dissertation/capstone to demonstrate your mastery of your project area. Following the public presentation, you will meet privately with your committee so they can test you on your disciplinary knowledge and expertise, assess your progress on your learning outcomes and discuss your thesis/dissertation/capstone in greater depth. You will then be excused while the committee evaluates your performance in the exam and your FES Representative conducts the FES Grad Assessment (see Page 24).

Your Final Exam Timeline

Graduating in spring?

Spring graduation deadlines are often earlier than other terms, especially if you're participating in Commencement. These deadlines will be lower down on the Graduate School's deadline webpage.

Room reservations

Rooms in Richardson Hall will have limited availability during construction of the Forest Science Complex. It's best to reserve rooms early and to have a couple backup dates/times ready in case your top choice isn't available. A version of this timeline is available as a checklist in the appendix. Please refer to Page 38 for <u>additional procedures required</u> to successfully submit your thesis/dissertation.

3 to 6 months before final exam

- Review the OSU Graduate School's requirements and deadlines. Do not stop at the requirements and deadlines for your final exam include all related activities, such as thesis/dissertation submission, last-minute requirements, and commencement.
- Confirm that you have met all FES program requirements for your degree
- Confirm that all committee members are currently on OSU's graduate faculty

1 to 3 months before final exam

- Work with your committee to set the date, time, and location of the exam. If you will defend in Spring, consider scheduling your exam early in the term to meet adjusted Commencement deadlines and to catch busy committee members before they leave for the summer. Depending on committee availability, you may need more than 3 months' notice to schedule your exam.
- Contact the Grad Coordinator to reserve a room.
- Register for at least 3 credits in the term you will defend in (per Continuous Enrollment).

2 to 5 weeks before final exam

- Distribute examination copies of your thesis/dissertation to your committee
- Distribute copies of your learning outcomes plan to your committee.
- Remind your committee of the date, time, and location of the exam.
- Complete a diploma application (FIRM DEADLINE)
- Submit an Exam Scheduling Form to the Graduate School (FIRM DEADLINE)

1-2 weeks before final exam

- Respond to the Grad Coordinator's e-mailed request for advertising information
- Confirm that your GCR has received paperwork from the Graduate School.
- Confirm your room reservation.

Immediately after final exam

- Confirm that your FES Representative turns in your FES Grad Assessment.
- Make sure your Grad Rep turns all required paperwork in to the Graduate School.
- Meet with your major professor to review any requested revisions and establish a timeline for completion (thesis must be submitted within 6 weeks of defense or before next term begins, whichever comes first)
- Complete and submit the FES Check-out Checklist, including future contact information

FES PROGRAM REQUIREMENTS | FINAL EXAM

Advertising Your Defense

Two weeks before your final exam, the Grad Coordinator will e-mail you to discuss advertising.

It is common for other students and faculty to attend your defense as a show of support and to learn about your research. To advertise your defense, the Grad Coordinator will send an announcement to the department one week before and on the morning of your defense. They will also send an announcement to the CoF Today newsletter.

With your permission, the Grad Coordinator will also make and print color flyers to advertise your defense. At minimum, these flyers include:

- Your name
- Your degree
- The title of your thesis
- The date, time, and location of your exam

However, your flyers can include whatever you want! If there is something special you want on your flyer, just send it to the Grad Coordinator. Consider including:

- Major Professor's name
- Your photo
- A summary of your thesis
- A list of your awards and accomplishments
- A brief summary of your personal and/or professional history
- Highlights of your time at OSU
- A brief description of what you hope to do after you earn your degree

The FES office will post flyers around the College of Forestry buildings, and you will receive 10 flyers to post or hand out. If you need more flyers, just ask.

FINISHING YOUR PROGRAM

Exit interview

Try to schedule your exit interview at the

same time you need

the Department Head to sign your

ETD form.

Required for:
All FES Graduate Students

<u>Deadline:</u>

• Before leaving campus for the last time

Basic requirements:

- **MEETING:** Exit interview with Dept. Head
- TURN IN (DEPT): FES Check-out Checklist

After passing your final exam, submitting your thesis/dissertation, and completing all of your degree requirements, you just need to complete and submit the FES Check-out Checklist and the Graduate School's graduate survey. After that, you are done! Congratulations!

SATISFACTORY ACADEMIC PROGRESS

During your time at OSU, you will see frequent references to 'satisfactory academic progress'. You must make satisfactory academic progress to continue a GRA, to be nominated for scholarships, and even to continue your graduate program. In the Forest Ecosystems and Society graduate program, satisfactory academic progress requires:

- Annual completion of a FES Assessment of Graduate Student Academic Progress showing adequate progress as evaluated by your major professor (See Page 19).
- 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.
- 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.

If a student consistently does not meet one or more of these standards, it may be necessary for the department to intervene. The department will communicate with the student and their major professor to discuss why the student is not making satisfactory progress, define what they need to work on and lay out a plan to get them back on track. The department will do what it can to work around any personal challenges the student may be facing, including approving a Leave of Absence so the student can take the necessary time to resolve the issue.

If a student refuses to cooperate with the department, consistently fails to follow the plan, or cannot cope with the demands of a graduate program while managing personal problems, it might be time to discuss whether it is reasonable for them to continue their graduate program.

CONTINUOUS ENROLLMENT

In accordance with the Graduate School's 'Continuous Enrollment' policy, you must register for at least 3 credits every term (except summers). A few points regarding Continuous Enrollment:

- If you completed all the courses on your Program of Study and do not want or need to take any additional courses, you can meet Continuous Enrollment requirements by registering for thesis credits.
- If you skip registering for a term (except summer) and try to register for the following term, you will be charged tuition costs for the term you skipped.
- If you skip registering for multiple terms without registering for an official Leave of Absence, you will be required to reapply before you can continue your program.
- If you are receiving funding, the conditions of your funding may require you to register for more than 3 credits per term.
- You must be registered for at least 3 credits when you conduct your final exam and turn in your thesis.

If you need to take a break from your program, talk to your major professor about going on an approved Leave of Absence (explained in more detail below).

ACADEMIC REQUIREMENTS & POLICIES

LEAVE OF ABSENCE

Plan ahead

Leave of Absence forms must be submitted before the term begins. If you need to take a break in the middle of the term, talk to the Grad Coordinator about your options. If a student does not intend to register for a specific term (Fall, Winter, or Spring) while they are enrolled in their degree program, they may apply in advance for a leave of absence. A leave of absence is not required for students who do not register during Summer.

If you need to take a term off, you should discuss the issue with your major professor and either the Grad Coordinator, the Grad Program Director or the Department Head. They will see if they can help you resolve the situation, and, if taking time off is the best option, help you fill out a Leave of Absence form (*gradschool.oregonstate.edu/forms*) and submit it to the Graduate School before the term in question.

MS and MF students can take up to 3 terms of regular leave over the course of their program. Ph.D students can take up to 3 terms before their preliminary exam and 3 terms after their preliminary exam. If you are contracted to be a Graduate Research Assistant (GRA) for the term you will be on leave, you may qualify for Family and Medical Leave. You can read more about the Graduate School's Leave of Absence policies in the Graduate Catalog (*catalog.oregonstate.edu/ChapterDetail.aspx?key=*38).

It is important for you to remember that your major professor, your committee, and your program administrators all want you to succeed...but they also want you to be healthy and happy. They may talk to you frankly about the challenges involved in taking a break, but they will never be upset with you for addressing your physical and/or mental health or supporting the needs of your family.

FUNDING YOUR PROGRAM

A clear and reasonable funding plan is a key part of every student's graduate education. Although many students cooperate with their major professor to create their funding plan, it is ultimately the student's responsibility to ensure all of their costs are covered.

Expenses

Graduate students need to plan for expenses in three general categories:

- **Institutional expenses** paid to OSU to facilitate the core components of their education. These include tuition, fees, health insurance, textbooks, printing, and parking.
- **Research expenses** that support the completion and communication of their research. These include travel to research sites, equipment used to collect or analyze samples, and travel to conferences to present research.
- **Living expenses** that support their basic survival. These include rent, food, clothing, and transportation.

Due to the unique research interests and lifestyles that each student brings to their graduate program, it is difficult for OSU to estimate the exact total cost of any specific student's attendance. It is important for students to assess their own expenses and how to pay them, both before their program begins and as their program progresses.

Few (if any) students have sufficient financial resources to cover all of these expenses. Consequently, most students need some kind of financial support to get through their graduate program.

Receiving Funding

There are three general ways that FES graduate students receive funding:

Graduate Assistant (GAs): Most GAs are supervised by their major professor and are paid using the grants, contracts, or agreements that support their professor's research. Other GAs may be supervised by course instructors to serve as teaching assistants. For every term that a student is appointed as a GA, they receive tuition remission, access to health insurance, and a stipend. GA funding supports institutional and living expenses but may not include research expenses. See Page 48 for more about GAs.

OSU awards, scholarships, and fellowships: Competitive scholarships and fellowships are administered at three levels at OSU: the Graduate School, College of Forestry, and FES Department. Scholarships and fellowships are usually paid as one lump sum or in installments deposited into the student's business account each term. A few fellowships meet certain criteria that qualify the recipient to be appointed as an OSU Graduate Fellow. Officially appointed OSU Graduate Fellows receive a tuition waiver and access to health insurance. OSU awards, scholarships, and fellowships

are best accessed by applying in careful accordance with award instructions and deadlines. Please be aware that certain OSU awards, scholarships and fellowships may carry restrictions on how they can be accessed or used – please thoroughly review award stipulations before applying to determine if that award will suit your needs.

External awards, scholarships, and fellowships: External funding is usually an award paid directly to the student without interacting with OSU, although some external funding meets the criteria to appoint the recipient as an OSU Graduate Fellow. Officially appointed OSU Graduate Fellows receive a tuition waiver and access to health insurance. External funding is best accessed by independently locating potential funding sources and applying in careful accordance with award instructions and deadlines. Please be aware that certain external awards may carry restrictions on how they can be accessed or used – please thoroughly review award stipulations before applying to determine if that award will suit your needs.

GRADUATE ASSISTANTSHIPS (GAS)

Terminology

'GA' includes research assistants and teaching assistants. While 'GRA' refers to research assistants, and 'GTA' refers to teaching assistants, you'll often hear 'GRA' used to refer to both as well. Graduate Assistants (GAs) are appointed by the FES department to perform specific duties to the satisfaction of their supervisor. This supervisor is usually the person funding the GA - often this is a student's major professor, but not always. Duties associated with the GA funding are considered employment.

Students hoping to be appointed as a GA should first consult with their major professor. If their major professor does not have any GA opportunities available, students should contact individual faculty in their area of interest or who instruct courses the student may be able to assist with. FES students can also explore GA opportunities in other departments or colleges.

Payment and Benefits

During each term in which they are appointed as a GA, students receive a waiver that covers their tuition and substantial portions of their mandatory fees and health insurance coverage (*studenthealth.oregonstate.edu/insurance/graduate-assistant-insurance-plan*). They also receive a stipend (subject to taxes) in the amount specified in the first paragraph of their appointment letter. This stipend is determined by their FTE, the degree they are seeking, and the College of Forestry wage schedule, and can be used to pay living or course-related expenses.

Some GAs are appointed to conduct a research that will be used for their thesis/dissertation/capstone. The grants, contracts, and agreements used to pay for the GA **may** include additional funds that will assist with operational and travel costs associated with completing the project. GAs should discuss their operating budgets with their supervisor to determine if this is the case.

Duties and Responsibilities

Read before signing

Before signing your Work Assignment form, read it carefully and make sure it accurately reflects what you'll be doing. If it doesn't (or if you don't understand what it says), talk with your supervisor about fixing it.

Paid to be a student?

If you're being paid to do something that you need to do anyway (thesis research, program requirements), you still need to devote unpaid hours to it, too...just like the students who don't have funding. When a student is appointed to a Graduate Assistantship (GA) they will receive a work assignment that describes the duties they are now employed to perform. The work assignment also lists the number of hours or percentage of overall FTE allocated to each task.

Although the duties and responsibilities for each GA are different, every single GA **must**, <u>in</u> <u>addition</u> to the duties in their position description:

- Make satisfactory progress towards the completion of their degree
- Register as a full-time student for each term in which they are employed
- Attend pertinent safety trainings and abide by procedure in the CoF Safety Manual

Duties and responsibilities listed in a student's work assignment sometimes include:

- Assisting the instructor of one or more courses by supervising lab or recitation sessions, grading undergraduate homework or tests, holding regular office hours, preparing class materials, and proctoring exams. GAs with these responsibilities are usually referred to as Graduate Teaching Assistants (GTAs).
- Assisting in their supervisor's research by collecting or analyzing samples, recording and maintaining databases, reviewing literature, ordering equipment or materials, maintaining shared equipment and laboratory/classroom space, shipping, and mailing. GAs with these responsibilities are usually referred to as Graduate Research Assistants (GRAs).
- **Performing their own research** by creating and implementing their research proposal, applying for additional research funding, preparing and submitting manuscripts for publication, presenting their research, and writing their thesis/dissertation/capstone. GAs with these responsibilities are usually referred to as Graduate Research Assistants (GRAs).

Students should carefully distinguish between the required hours and employment duties described in their work assignment and the work required for their academic progress and thesis research. In some cases the work that a GA is hired to do will also contribute to their degree program, but satisfactory academic progress will generally require more (and different) work than the work assignment describes.

Explaining FTE

FTE (Full-Time Employment) is how OSU refers to the number of hours an employee is expected to work. A person working 1.0 FTE would work 40 hours per week. GAs can be hired to work anywhere between 0.30 FTE and 0.49 FTE. Some GAs will meet their FTE by working a set number of hours every day or week. Other GAs will work a variable schedule with the understanding that they will meet their overall FTE by the end of the term. GAs should discuss the best way to track their hours with their supervisor before beginning their appointment.

A GA's FTE is listed on their work assignment and in the first paragraph of their appointment letter. If a supervisor regularly asks the GA to work more than their FTE (and if the extra work does not contribute to their degree program), the GA should discuss revising either their FTE or their workload with their supervisor. If their supervisor is not willing to discuss the issue, the GA can contact the Graduate Program Director, the Office Manager or the Department Head.

FUNDING | GRADUATE ASSISTANTSHIPS

FES GA Evaluation

Two performance reviews

The FES GA Evaluation is about your employee performance. The FES Assessment of Graduate Student Academic Progress is about your student performance. They are not the same thing, and if you're a GA, you probably have to do both. Supervisors must conduct an evaluation for each of their graduate assistants (GAs) at least once per academic year. Evaluation forms are available on the FES website or via the FES Grad Coordinator. Evaluations are due to the FES Department by June 30th every year. We cannot reappoint GAs until we have received their evaluation for the preceding year.*

This requirement is detailed in the attached 2016-2020 CGE Contract. **These evaluations are** <u>not</u> <u>the same</u> as the FES Assessment of Satisfactory Academic Progress.

"Do I need to be evaluated?"

If you were appointed as a GRA or GTA through FES for one or more terms (Summer, Fall, Winter, Spring) during the academic year, you need to be evaluated by June 30th of that year. **However, you do** <u>not</u> need to be evaluated if...

- You graduated/will graduate before the evaluation is due
- You were appointed by FERM, WSE, F&W, or some other non-FES department
- You had an hourly appointment or a Graduate Fellow appointment instead of a GRA/GTA

"What will my evaluation cover?"

Evaluations only cover tasks that you were specifically appointed and paid to perform. Unless included in your position description and covered by your FTE, your evaluation should not critique your progress on degree requirements (including thesis research), performance in classes, professional development activities, or 'citizenship' activities like providing unpaid assistance for your lab group.

"What do I have to do?"

Your supervisor is responsible for completing the evaluation form, giving it to you to review and sign, and making sure the form gets turned in by June 30th. You are responsible for reviewing and signing the form after your supervisor gives it to you. If you disagree with your evaluation, you have 30 days after signing it to write a rebuttal and submit it to the FES Department Office.

"Who is going to evaluate me?"

You'll be evaluated by your designated GRA/GTA supervisor. This could be your major professor, but if you are assisting a different faculty member with classes or research, they would be your supervisor. If you had one supervisor for part of the year and another supervisor for a different part, each supervisor would do their own evaluation.

*Does not include summer

GRADUATE SCHOOL AWARDS

Graduate Student Travel Award

The Graduate Student Travel Award is different from other Graduate School awards. See the 'Travel Support' section for more info. Graduate School scholarship and fellowship awards are distributed across the University and subject to fierce competition, so receiving a Graduate School award is a matter of great prestige. Students and their major professors are responsible for identifying the awards they can and should apply for.

The Graduate School usually does not accept award applications directly from students or faculty. Instead, students and faculty must submit their materials to the Grad Coordinator **at least 4 weeks before the deadline** stated on the Graduate School webpage (*gradschool.oregonstate.edu/awards*). Because most Graduate School award competitions accept a limited number of nominees per department, The FES Department requires the extra 4 weeks to evaluate applications, select the department nominee, and work with the student and major professor to prepare any additional materials that may be required. Ask the FES Grad Coordinator about the FES deadlines for any Graduate School awards you are interested in.

Students must be formally accepted to the FES program before applying for these awards. Prospective students who have not yet been accepted via standard program procedures cannot be considered.

COLLEGE OF FORESTRY GRADUATE FELLOWSHIPS

The College of Forestry Fellowship Competition (*www.forestry.oregonstate.edu/fellowships*) awards supplementary funding to exemplary new and continuing students. The competition has two rounds to award funding for the subsequent academic year.

In the first round (early January), the FES Fellowship & Scholarship Committee will select 7 topperforming applicants to the FES Graduate Program and forward them to the CoF Fellowship Committee for consideration. In the second round, the FES Fellowship & Scholarship Committee will select 7 top-performing applicants to the FES Graduate Program and 7 top-performing continuing students and forward them to the CoF Fellowship Committee for consideration. Every applicant who has been accepted to the FES Graduate Program (see 'New Students' below) by the CoF Fellowship deadline will be considered automatically. Continuing students (see 'Continuing Students' below) must submit a CoF Fellowship application in order to be considered.

New Students

- Can be considered in both rounds
- Must have formally applied and been accepted to a graduate program at OSU for the following academic year
- Must have either been accepted to the FES graduate program, or have a major professor who is a regular graduate faculty member in FES
- Must already have some funding in place for the award year
- Must have submitted GRE scores as part of their application

FUNDING | SCHOLARSHIPS & FELLOWSHIPS

New students are automatically entered into consideration when they are formally accepted to the FES graduate program. If a student from a different graduate program is to be considered, their FES major professor must forward their application materials to the FES Grad Coordinator before the FES deadline. If selected as one of FES' nominees to the College competition, the student and their major professor will be notified of any additional materials they need to submit.

Continuing Students

- Can only be considered for Round 2
- Cannot receive more than 2 (MS/MF) or 3 (Ph.D) academic years (3 terms per year) of CoF Fellowship support
- Must already have some funding in place for the award year
- Must either be a student in the FES graduate program or have a major professor who is a regular FES graduate faculty member

To apply for consideration by the FES Fellowship and Scholarship Committee, students and their major professors must submit the following before FES's selection deadline:

- Letter of application, not to exceed one page. Submitted by the student to the Grad Coordinator.
- Resume of OSU accomplishments, per CoF guidelines. Submitted by the student to the Grad Coordinator.
- Graduate Fellowship Application Form B. Submitted online by the student via the CoF Fellowship webpage.
- Letter of endorsement, not to exceed one page. Submitted by the major professor to the Grad Coordinator.
- The student's funding plan for the award year, including what kind of funding the student will receive in each term, the FTE of any assistantships, the responsibilities of any assistantships, and the source of their funding. Submitted by the student or their major professor to the Grad Coordinator.

If selected as one of FES' nominees, the student will be notified of any additional materials they need to submit.

FES DEPARTMENT AWARDS

Every year, FES is pleased to offer both monetary and congratulatory awards to exemplary new and continuing students. Recipients of these awards are recognized at the FES Awards Ceremony every spring.

FES Scholarships & Fellowships

In spring, the FES Fellowship and Scholarship Committee selects excellent continuing students who best exemplify the goals of FES' endowed fellowships (contingent on availability) and award accordingly.

These endowed fellowships usually include:

- James H Dukes, Jr Graduate Fellowship: awarded to returning Ph.D students in forest ecology
- **Robert F Tarrant Graduate Fellowship:** awarded to full-time graduate students with programs in hardwood ecology and silviculture
- Harry and Mildred Fowells Fellowship: awarded to a graduate student studying tree physiology and/or genetics
- **Catherine G Bacon Graduate Fellowship:** awarded to a female graduate student in forest ecology or silviculture
- Social Science Graduate Student Award: awarded to a graduate student in FES primarily studying social sciences

To apply, continuing students should submit an up-to-date CV to the Grad Coordinator. Accomplishments since arriving at OSU should be highlighted or otherwise differentiated from prior accomplishments. If the student has submitted an up-to-date CV for the College of Forestry Fellowships or a recent Graduate School award competition, they are not required to re-submit their CV to be considered for the FES Scholarships & Fellowships.

Students must send any required materials to the Grad Coordinator by April 15th.

Outstanding Graduate Student Awards

The Outstanding Graduate Student Awards recognize one continuing MS student and one continuing Ph.D student who consistently demonstrate their exceptional scholastic ability, work ethic, and department citizenship. Any MS or Ph.D student with a major professor in FES is eligible. Students may be nominated by any graduate faculty member in FES (or who advise a student in the FES program). To nominate a student, the graduate faculty member must submit a letter of endorsement and a copy of the student's CV to the Grad Coordinator by April 15th.

You don't need to identify which FES scholarships and

One application for

lots of awards

fellowships you want to be considered for. Submit the one application and you'll be considered for every FES award you're eligible for.

TRAVEL SUPPORT

Not presenting?

The Dilworth Award and Student Sustainability Initiative will still consider you for travel funding! Most graduate students will travel to conferences, meetings, symposia, or workshops during their program. Some graduate students are able to travel using the funds that support their research, but others have to find funding to pay for the trip.

For most travel funding available through OSU, students must a) show that they have some travel funding already in place and b) plan to present at the event they are traveling to. In some cases (e.g. airfare), students may use their awarded funds to make travel purchases through the College of Forestry Business Center before their trip (*fa.oregonstate.edu/fobc/college-forestry/travel*). However, most awarded funds will be issued as reimbursements for pre-approved expenses after students have returned from their trip. Awarded travel funding cannot be disbursed to the student as cash or check before the trip takes place.

Graduate Student Travel Award

The Graduate Student Travel Award helps cover the costs of presenting scholarly achievements at prestigious conferences and venues. The award covers up to half of the full cost of attending a conference, or a maximum of \$500 for domestic travel and \$1,000 for international travel. Applications for this award cannot be submitted directly to the Graduate School. Instead, applications must be submitted to the Grad Coordinator at least one week prior to the deadline stated on the Graduate Student Travel Award page. Application requirements, deadlines, and eligibility details are available on the Graduate School website (gradschool.oregonstate.edu/awards/travel-award).

Graduate Student Conference Subsidy

The Graduate Student Conference Subsidy, available through the Human Services Resource Center (HSRC), awards up to \$150 to help graduate students pay the costs of registering for conferences. Applications should be submitted to HSRC within 30 days of the conference. Applications and instructions are available on the Graduate Student Conference Subsidy website (*studentlife.oregonstate.edu/hsrc/resources/graduate-student-conference-subsidy*) or in the HSRC office in Avery Lodge.

J. Richard Dilworth Graduate Award in Forestry

The Dilworth Award provides funding for scholarship, student travel, and graduate teaching. In regards to student travel, priority is given to travel for student research not covered by departmental or project funds and for group instructional activities not covered by departmental funds.

Applications are due in early Spring, with total award amounts to be determined by the annual yield of the foundation account. More information is available on the J. Richard Dilworth Graduate Award in Forestry webpage (*www.forestry.oregonstate.edu/j-richard-dilworth-graduate-award-forestry*).

Student Sustainability Initiative Professional Development Grant

The Professional Development Grants available through the Student Sustainability Initiative provide funds for students to attend educational opportunities related to sustainability. Funds may be used to cover registration fees, lodging, and travel up to \$500. Proposals that benefit OSU students and the SSI's mission of "Advancing student efforts to create a culture of sustainability at OSU through opportunity, education, and action" are preferred.

Applications are due 30 days prior to the event (60 if traveling by air). Application materials and instructions are available on the Student Sustainability Initiative's 'Professional Development Grants' website (*sli.oregonstate.edu/ssi/grants/professionaldevelopment*).

Waring Travel Grant Program

The Waring Travel Grant provides supplementary funding for graduate student travel to professional or scientific meetings where they will be presenting. Applications that demonstrate additional partial travel funding from other sources will receive preference. Funds from this grant are generally restricted to transportation, lodging, and meeting registration costs. Students are only eligible for one grant per academic year. To be considered, students must be enrolled in the FES program or have a major professor who is a regular graduate faculty member in FES.

Applications may be submitted at any time, but funding decisions generally will occur during the first week of November and March. Students are encouraged to time their applications to meet one of these deadlines, but exceptions may be made to fund proposals at other times.

To apply, students must submit a proposal containing the following:

- Student name
- Degree program and date of initial enrollment
- Major professor
- Name of the meeting
- Organization hosting the meeting (if not apparent from the name)
- Meeting dates
- Proposed travel dates
- Type of presentation (volunteer/invited, oral, poster, etc)
- Brief abstract of the presentation
- Budget including estimated expenses and funds available from other sources. The budget should include a justification for any expenses that are not apparent, e.g. rental car, extra days before or after the meeting, etc.
- Date by which a decision is needed from the committee to confirm travel plans
- Any supporting documents that might help the committee evaluate the application, such as an invitation letter

The proposal should be e-mailed as a single PDF to the Grad Coordinator and the chair of the FES Fellowship and Scholarship Committee. Questions about this award should be directed to the chair of the FES Fellowship and Scholarship Committee

FUNDING | TRAVEL SUPPORT

EXTERNAL FUNDING

We strongly encourage students to search and apply for external funding to help support research and living expenses. Besides helping to relieve financial stress, receiving external funding is an excellent addition to a student's CV. Graduate students should discuss options for external funding with their major professors. Major professors are expected to alert their students to funding opportunities in their professional fields.

At the bottom of the Graduate School's Fellowships and Scholarships webpage (*gradschool.oregonstate.edu/finance/fellowships-and-scholarships*), you'll find links to lists of external fellowships, strategies for finding external funding, and grant writing resources. For other opportunities, students should ask their major professor and graduate committee for suggestions. Searching online may also yield funding opportunities specific to particular research areas or identities.

PROGRAM & DEPARTMENT RESOURCES

In this handbook and throughout your program you will see frequent references to your major professors and certain program administrators. Understanding who you should contact for answers and support can save you time and headache down the road. Use these resources to make the best of your program – they are all here to help!

Your Major Professor

Just as every student has an individual style of learning, every major professor has an individual style of advising. This means that the dynamic between major professors and students is endlessly variable. In general, you should be able to rely on your major professor to:

- Make sure your research and professional development are held to and meet rigorous standards
- Help you define your interests and choose appropriate course work
- Provide specific suggestions on designing and carrying out your research, particularly if you are an MS student
- Provide or help you find funding for your graduate studies, and help you understand the terms, duration, and expectations associated with any funding you receive
- Alert you to job opportunities during and after graduation, and help you network with professionals in your field
- When appropriate, offer guidance on career and personal decisions affecting your professional development

Starting Out With Your Major Professor

Early in your program, you should have a frank conversation with your major professor about expectations. What does your major professor need from you? What do you need from your major professor? This is the time to set boundaries and define responsibilities so that you and your major professor can both meet your goals. For some students and their major professors, one conversation is sufficient to establish expectations. Others prefer to create an informal agreement defining specific obligations and responsibilities, and some may go further to create a signed contract that the student and major professor can refer to if they feel that their needs are not being met.

During your discussion, consider the following questions:

- How often should you meet?
- How involved will you be in each other's research?
- What is your proposed timeline for completing your program?
- What is the best way to communicate?
- How frequently will you communicate?
- Who is going to do what to make sure you are funded?

There may not be answers to all of these questions in the beginning. That is fine - at this point, discussing your needs and expectations is likely more important than coming to firm conclusions.

PEOPLE, RESOURCES, & SUPPORT | FES RESOURCES

Maintaining a Productive Relationship with Your Major Professor

It is possible that you will have occasional disagreements with your major professor. Unclear expectations, dropped responsibilities, personality clashes, or crossed boundaries could make it difficult to work together. If your relationship with your major professor is becoming a problem, you have several options.







The first option is to **discuss the problem with your major professor directly.** Schedule some time to talk about what is bothering you. Be clear about how it is impacting your work, and present possible solutions. Figure out what changes you and/or your major professor need to make as you move forward, and hold each other accountable for these expectations. If you and your major professor wrote a statement or contract describing your respective responsibilities when you first enrolled, this would be a good time to refer back to it or make adjustments.

If you would like to speak with your major professor directly but feel an objective third party would help facilitate the conversation, you can ask the Grad Program Director or the Department Head to sit in on your meeting.

If you feel that discussing the issue with your major professor would not be productive, **you can go to a third party.** The Graduate Program Director, the Department Head, the Graduate School and the University Ombuds Office are all here to help address these issues. With your consent and input, they can speak with your major professor about the problem, help you plan a meeting with your major professor, or discuss steps that you can take on your own to improve the situation. They can also act as a confidential sounding board for your thoughts and ideas.

The student/major professor relationship comes with responsibilities for both parties. Major professors, in addition to their mentoring responsibilities, likely have commitments to produce research associated with the student's research. In the unlikely event that a student is considering a change of major professor, the student should speak to their major professor (if possible) and the Department Head or Graduate Program Director to understand how the change would impact their research and responsibilities.

If you believe it may be necessary for you to switch to a different major professor, please contact the Grad Coordinator.

FES Graduate Program Support

The FES Graduate Program is primarily administrated by the Graduate Program Coordinator and the Graduate Program Director, with oversight by the Department Head and some additional assistance from the FES Department staff.

FES Graduate Program Coordinator: Jessica Bagley



Richardson 321 | 541-737-6556 | Jessica.Bagley@oregonstate.edu

The Grad Coordinator tracks your progress, helps administrate your funding, helps you understand and fulfill your degree requirements, and generally supports you throughout your program. After your major professor, the Grad Coordinator should be your first point of contact for questions and needs related to your graduate degree. She can help you understand requirements and policies, troubleshoot funding issues, locate resources, or deal with the occasional 'weird' questions that are liable to pop up. Even if she does not have the answer, she can help you figure out where to go.

FES Graduate Program Director: Lisa Ganio



Richardson 201J | 541-737-6577 | Lisa.Ganio@oregonstate.edu

The Grad Program Director helps create, define, and regulate the policies and systems that support the graduate program. She develops strategies to better address the needs of FES graduate students, either individually or as a group, and supervises program administration. The Grad Program Director can help you address issues with your major professor or instructors, form plans to work through complex academic or procedural problems, address sensitive or confidential concerns, or work with you on questions that cannot be addressed to your major professor or Grad Coordinator.

FES Department Head: Troy Hall



Richardson 321 | 541-737-1306 | Troy.Hall@oregonstate.edu

The Department Head directs the administration and planning necessary for a productive and successful department. She leads discussion on new and existing policy, helps define goals and initiatives, and oversees successful function of our units and programs. Contact the Department Head if you have a serious or confidential concern about your program, if you want to share feedback, or if you need help resolving a sensitive issue involving others in the department or college.

FES Department Administrative Support

The FES Department is primarily administrated by the Department Head, the Office Manager, and three office staff members. These staff members include the Graduate Program Coordinator, the Online Degree and Certificate Coordinator, and a student assistant.



Graduate

Certificates

Some students in the

FES Grad Program also enroll in one of our Graduate

Certificates. In fact,

many certificate requirements overlap with activities that

FES Grad Students

review information

Certificates on our

about Graduate

website.

will complete anyway! You can

FES Office Staff

Richardson 321 | 541-737-2244 | FES.Workbox@oregonstate.edu

The Office Staff keep things running smoothly on a dayto-day basis. They are a great place to start if you are not sure where to direct your questions. Call, e-mail, or visit the department office if you need help with locating resources, reserving rooms, sending packages and mail, handling facilities issues, getting keys, operating copiers, finding office supplies, and other general administrative business.

Current staff members include Meghan Foster (FES Online Degree and Certificate Coordinator), Jessica Bagley (FES Grad Coordinator), Misty Magers (FES Office Manager), and our student worker.

FES Office Manager: Misty Magers

Richardson 321 | 541-737-1484 | Misty.Magers@oregonstate.edu

The Office Manager supervises administration in the department, including department facilities, budgets, policies, and record-keeping. If the Grad Coordinator is unavailable or cannot answer your funding or facilities question, contact the Office Manager for help.

Online Degree and Certificate Coordinator: Meghan Foster

Richardson 321 | 541-737-6088 | Meghan.Foster@oregonstate.edu

The Online Degree and Certificate (or Ecampus) Coordinator administrates the FES Department's online Master of Natural Resources program, as well as several graduate certificates. Contact her if you have questions regarding our graduate certificates.

PEOPLE, RESOURCES, & SUPPORT | FES RESOURCES

CAMPUS RESOURCES

Graduate Student Success Guide

gradschool.oregonstate.edu/graduate-student-success

The Graduate Student Success webpage is a hub for much of the information and resources you will need throughout your Graduate Program. In particular, their Student Resources page is an easily navigable guide to many (if not all) of the University resources available to you, sortable by the following categories:

- Academic Help
- Campus and Community
- Health and Wellness
- Mentor Relationship
- New Student
- Professional Development

There are a wealth of resources available to you through the Graduate School and University, and the Graduate Student Success Guide is the best place to find them.

Finance, Purchasing, and Human Resources

College of Forestry Finance & Accounting (FOBC)

Strand 270 | fa.oregonstate.edu/fobc/college-forestry

FOBC handles issues related to payroll, travel, hiring, human resources, and grant administration. Many finance and accounting issues can and should be resolved at the department level, so before contacting the Business Center, try bringing your question or concern to the FES Grad Coordinator or FES Office Manager.

Purchasing

Oak Creek 169 | 541-737-4280 | Glenn.Folkert@oregonstate.edu

If you have an index, you may contact Glenn Folkert to make material purchases through Oregon State University. Purchasing through the University is often less expensive than purchasing directly from vendors. Purchases made through the University will typically be delivered to the FES Department Office.

Travel Purchasing

Travel Desk: Strand 270 | (541) 737-3188 | Rebecca.Currier@oregonstate.edu *Conference Registration:* Strand 270 | 541-737-1588 | Christina.Fierro@oregonstate.edu

If you are planning to use some type of OSU funding to travel as part of your degree program, contact the Business Office to arrange for airfare, hotels, or rental cars. You can also make travel purchases on your own and work with the business office to get a reimbursement. If you are attending a conference as part of this travel, you can request that the University use your index to pay the conference registration fees.

Technology and Equipment

Forestry Computing Help Desk

Richardson 215 | (541) 737-2152 | helpdesk.forestry.oregonstate.edu

When checking in for the first time after enrolling, FES graduate students are set up with a College of Forestry Network account. These accounts are administrated through the Forestry Computing Help Desk, and include services such as:

- E-mail accounts
- Disk space
- Printing & scanning
- Computing workshops
- Equipment checkout
- Remote access to lab software
- Workshops
- Computer and software purchasing assistance

Students also have access to Forestry computing labs, where they can use multiple monitors, printing and scanning, and operate software such as ArcGIS, Sigmaplot, SPSS, and the Adobe Suite. Check the Forestry Computing Help Desk webpage or visit the Computing Helpdesk in RH 215 to see current computer lab locations and hours.

Students must read and adhere to OSU's Acceptable Use of Computing Resources Policy (*fa.oregonstate.edu/gen-manual/acceptable-use-university-computing-resources*).

Student Multimedia Services

Valley Library Circulation Suite | (541) 737-3332 | is.oregonstate.edu/sms

SMS provides multimedia facilities, equipment, and technical support for students producing and presenting academic work. They can help you print posters, brochures, or your thesis, and also provide troubleshooting and video editing.

Forest Equipment Rentals

Snell 224 | 541-737-2192 | Jim.Kiser@oregonstate.edu

CoF has some general equipment available for you to check out. These include safety gear, measuring tools, handheld tools like hammers and shovels, stakes, and flags. Contact Jim Kiser to reserve your equipment.

Fabricating Custom Equipment

Oak Creek 170 | 541-737-4275 | John.Mikkelson@oregonstate.edu

The Projects and Maintenance department has a wide range of metal- and wood-working capabilities, and can fabricate custom equipment in most cases. Their shop rate, set by the Business Office, is \$50/hr, and you will need to provide a funding index/activity code before materials can be purchased and work begun. Minor work may not incur a charge, depending on the nature of the task(s). Please be prepared to provide complete specifications, including dimensions, a diagram, and the context in which the equipment will be used. For further information, contact John Mikkelson, the Director of Projects and Maintenance.

Research and Academic Support

Statistical Consulting and Research Assistance

helpdesk.forestry.oregonstate.edu/statistical-consulting

CoF's Research Consulting Statistician provides services including training, consultation and help with research study design, statistical analysis, programming languages (e.g. R) and interpretation of statistical literature. Students are especially encouraged to meet with a consultant before beginning field work or data collection to make sure their methods and study design are as sound as possible.

Computing Workshops

helpdesk.forestry.oregonstate.edu/training

The Forestry Computing Helpdesk provides varied workshops throughout the year, covering topics for common programs like Microsoft Excel and Access, and for niche tools like SigmaPlot, ArcGIS, and R. All workshops are free of charge to the CoF community. Watch for e-mails announcing upcoming workshops, or visit the website to check for scheduled workshops or register interest for unscheduled workshops.

Graduate Writing Center

Waldo 104 | 541-737-5640 | writingcenter.oregonstate.edu/graduate-writing-center

The OSU Graduate Writing Center can assist with job applications, IRB materials, proposals, seminar papers, conference presentations, and theses and dissertations. Highly trained graduate writing consultants can help you navigate the complex expectations of graduate writing. Although these consultants are not content experts, they can help with writing issues including brainstorming, argument development, organization, clarity of expression, and citation/documentation.

Valley Library

121 Valley Library | 541-737-3331 | library.oregonstate.edu

The Valley Library, situated in the heart of the OSU main campus, offers workshops and research help, in addition to a variety of individual and collaborative study spaces. Open 24/7 during the academic year, with reduced hours during summer.

International Students and Programs

Office of International Services (OIS)

University Plaza Ste 130 | 541-737-6310 | international.oregonstate.edu/ois/students

OIS helps international students understand and abide by the policies and practices that allow them to study in Oregon. Visit their website for more information.

CoF International Programs

Strand 258 | 541-737-6458 | international-programs.forestry.oregonstate.edu

The CoF International Programs office arranges international study and travel opportunities for students and faculty, and arranges for scholars to visit OSU from around the world. If you are interested in traveling as part of your graduate program, contact Michele Justice at 541-737-6458 to discuss opportunities.

OSU Office of Global Opportunities

University Plaza, Suite 130 | 541-737-3006 | international.oregonstate.edu/osugo

The OSU Office of Global Opportunities (OSU GO) administers, promotes, and advises OSU students, faculty, and staff on opportunities related to the International Degree program, study abroad, international internships and service learning, and education abroad scholarships and fellowships. OSU GO prepares OSU students to graduate from OSU with enhanced global awareness and intercultural skills, which are necessary to excel in a globally competitive job market.

PEOPLE, RESOURCES, & SUPPORT | CAMPUS RESOURCES

Jobs and Professional Development

Workshops and Trainings

gradschool.oregonstate.edu/graduate-student-success/professional-development

The Graduate School regularly holds professional development workshops and trainings, and tracks additional professional development opportunities available across the University. Visit the Professional Development section of the Graduate Student Success Guide for lists of upcoming events.

Graduate Student Success Staff

Memorial Union 203 | 541-737-1464 | gradschool.oregonstate.edu/graduate-student-success

The Graduate Student Success staff are available to discuss your professional development needs and may be able to find or help you create the training opportunities you are looking for. Visit the Graduate Student Success Center or contact the Graduate Student Success Coordinator to learn more about how they can help you prepare for your career.

Finding a Job

jobs.forestry.oregonstate.edu

The CoF Jobs webpage tracks and links to job opportunities that graduating CoF students may want to apply to. If you are preparing for your next step after graduate school, we encourage you to check this page early and often.



PEOPLE, RESOURCES, & SUPPORT | CAMPUS RESOURCES

MANAGING YOUR HEALTH AND WELLNESS

Student Health Services (SHS)

Plageman 201 | (541) 737-9355 | studenthealth.oregonstate.edu

SHS clinicians, health educators, and other highly skilled health professionals provide campus-wide comprehensive primary health care, disease prevention and treatment services, and extensive health promotion for all OSU students.

Student Health Insurance Office

Plageman 110 | (541) 737-6748 | studenthealth.oregonstate.edu/insurance

The staff in the Student Health Insurance Office are available to answer any questions you have about student health insurance, including how to enroll, understanding your plan, and abiding by its policies and requirements.

Counseling and Psychological Services (CAPS)

Snell 500 | (541) 737-2131 | counseling.oregonstate.edu

CAPS provides counseling, consultation, outreach and education to OSU students, faculty, and staff. Through these services, CAPS facilitates students' academic success, mental health, and personal development and promotes a culture of positive mental health at OSU.

Human Services Resources Center (HSRC)

Avery Lodge | (541) 737-3747 | studentlife.oregonstate.edu/hsrc

The HSRC provides direct service, outreach, education, and referral services to OSU students that help alleviate the effects of hunger, poverty, and other human needs, allowing students to focus on a quality education. The HSRC also creates a dynamic learning environment in which students, faculty, and the community can learn how to meet the current pressing societal challenges facing college students.

Childcare and Family Resources

Avery Lodge 211/213 | (541) 737-4906 | childcare.oregonstate.edu

The Family Resource Center is here to support all families on the Oregon State University Corvallis campus. They have many resources on their website including child care assistance programs, breastfeeding/lactation room information, upcoming events, information about free care.com memberships and so much more.

Who gets and needs health insurance?

Graduate assistants (GRAs/GTAs) and graduate fellows get health insurance as part of their benefits, although if their assistantship or fellowship ends, their insurance ends too. Right now, domestic graduate students aren't required to have health insurance. but international students are.

Recreational Sports

Dixon 211 | (541) 737-3748 | recsports.oregonstate.edu

Through staff passion, innovation, and steadfast commitment to creating dynamic learning experiences, the Department of Recreational Sports has established itself as an essential campus partner in student wellness. They create engaging environments for student growth and success, inspiring healthy living by providing quality recreational and educational opportunities for the OSU community.

Coping With Stress

Many people believe that crushing stress, lack of sleep, and social isolation are all just a normal part of being a graduate student...but that is absolutely not true! Graduate school is about discovery, challenging yourself and those around you, and becoming a professional who can make real contributions to your field. This process does take a significant amount of work and it can be stressful at times, but it should never feel hopeless, unsustainable, or unmanageable.

A graduate degree program is very hard work. It is a complicated balancing act between your academic pursuits, supporting yourself and creating a sustainable life. It is common for students to lose steam now and then, especially as they hit obstacles or ruts in their research. It is also common for students to worry about their progress or to feel overwhelmed by their to-do list. Recharging your mental batteries, allowing yourself to relax and pursuing activities unrelated to your graduate program can be vital for coping with the stress of graduate school. Keeping a healthy perspective is critical to your well-being...remember that nobody does great work when they are burned out.

There are many resources on campus to support the physical and mental health of graduate students. Please see Page 66 for more information.

Stress Prevention

Some students worry that their friends and professors will have less respect for them if they are 'caught' doing anything besides working on their research. However, most students (and faculty!) actually aspire to a work/life balance that keeps them healthy and focused, even while working hard. Throughout your program, make sure you...

- Take daily breaks for exercise and rest
- Take daily breaks for full meals
- Schedule daily time to maintain relationships with friends and family
- Sleep 7-9 hours per night

It is also very important to be kind to yourself and communicate with your peers. Do not beat yourself up for feeling stressed, tired, frustrated, or uncertain; it happens! Vent about it to your fellow students. They are an excellent source of support, commiseration, and perspective.

While campus resources are well-equipped to help students in crisis, we strongly encourage you to explore and use these resources *before* you reach your stress limit. Many students regularly visit the Mind Spa or use campus counseling or support sessions to better understand their stress levels, make small adjustments, and improve their general well-being. Check out the CAPS webpage

(*counseling.oregonstate.edu*) for resources to meet a variety of needs and stress levels. You can also see Page 66 for additional physical and emotional health resources.

When to Ask For Help

Some students may not realize the effect that their stress is having on them, or may not recognize it as an issue they can seek help for.

Some potential negative effects of stress are:

- Difficulty concentrating or paying attention
- Problems eating
- Poor sleep (trouble falling asleep, nightmares, etc.)
- Dizziness, lightheadedness, or difficulty breathing
- Waves of sadness with urges to cry
- Ongoing headaches, muscle aches/spasms or back aches
- Stomach problems, diarrhea or frequent urination
- Increase in severity and duration of "colds"
- Low frustration tolerance

If you experience these symptoms, or if you are feeling like...

- The harder and longer you work, the less you seem to get done
- Talking to your peers, major professor or committee might 'expose' you as a fraud
- Resting, eating, and taking time to relax or socialize makes you feel guilty because you are not working
- You are unable to focus on or accomplish easy things
- It is hopeless there is just too much to do, and you are not good enough to do it

...then we want you to ask for help.

If you are comfortable talking about personal matters with your major professor, you should go to them first. Remember: they have been through this too! If you are not comfortable bringing it up with your major professor, you can speak to the Graduate Program Director or the Department Head instead. If you would rather talk with someone outside the department, consider visiting Counseling and Psychological Services (CAPS) (*counseling.oregonstate.edu*). CAPS offers individual, group, and couples counseling, as well as therapeutic equipment loans and meditation sessions. They also organize several support groups (*counseling.oregonstate.edu/main/group-counseling*) where you can talk through your concerns in a safe and confidential environment.

You are surrounded by people who sincerely care about you and want to help. Talk to somebody!

GRIEVANCES, ADVOCACY, AND MEDIATION

The following resources are all available to help you resolve any issues that are affecting your experience here at OSU. Please review your options carefully and contact the resource that is right for your situation and the type of assistance you are looking for.

FES Department

Richardson 321 | 541-737-2244 | fes.forestry.oregonstate.edu

You are always welcome to discuss any issues with the Graduate Program Director or the Department Head. We are committed to providing you with a quality education and a positive experience, and will take any complaints seriously. If your issue is beyond the scope of the department, we can refer you to other resources that may be better able to help.

Graduate School

Kerr 300 | 541-737-4881 | gradschool.oregonstate.edu/progress/grievance-procedures

If you would like to file a formal grievance at the University level, please refer to the Graduate School's grievance procedures for graduate students. These procedures are designed to maintain harmonious relations among students, faculty, and staff and address all facets of graduate education and employment of graduate students at Oregon State University, except for those explicitly noted.

Office of Equal Opportunity and Access

Snell 330 | 541-737-3556 | eoa.oregonstate.edu

Individuals who feel they are being treated unfairly because of a protected status such as race, gender, sexual orientation, gender identity, physical ability, or individuals who believe they are subjected retaliation for engaging in a protected activity or to behavior that rises to the level of bullying should feel free to come to the Office of Equal Opportunity and Access to talk through the situation. Through the Office of Equal Opportunity and Access, students can begin an informal process to resolve a disagreement or can file a formal complaint.

The Office of Equal Opportunity and Access promotes the principles of equity, inclusion, and diversity. They engage in community development, deliver and develop programs, initiatives and resources related to campus-wide diversity and social justice issues, and provide an opportunity for individuals who believe they have experienced bias or discrimination to come forward, file a complaint, and have their concerns addressed.

University Ombuds Office

Waldo 113/116A | 541-737-4537 | ombuds.oregonstate.edu

The Ombuds is a designated neutral or impartial conflict resolution practitioner who provides confidential and informal assistance to visitors on a variety of issues and concerns. The Ombuds Office operates independently and has no formal decision-making authority or disciplinary responsibilities. Ombuds do not act as advocates for any one position in a dispute; rather they strive for fairness of process and healthy campus conflict resolution. If you are not sure where to take your concern, the Ombuds is a safe place to start.

Associated Students of Oregon State University (ASOSU)

Student Experience Center 250 | asosu.oregonstate.edu

We exist as an organization to promote academic excellence, encourage the intellectual, social, cultural, and physical development of the student body, and enable the student body to assert its varied interests as citizens and members of the academic community through democratic representation. ASOSU can help you with issues pertaining to academic dishonesty, financial aid, privacy, student conduct, tuition and fees, on-campus disputes with law enforcement, faculty misconduct, grade appeals, parking, and more.

Coalition of Graduate Employees (CGE)

101 NW 23rd St | 541-757-7141 | cge6069.org

CGE represents the interests and rights of OSU's graduate employees through the bargaining and maintenance of a fair working contract. CGE strives to create a community empowered to advocate for collective issues. For grievances concerning graduate student employment, please refer to the Coalition of Graduate Employees (CGE) Contract Resources page (hr.oregonstate.edu/policies-procedures/administrators/graduate-employee-cge-contract-resources).

Appendix III

2011 – 2012 Graduate Faculty

Table III.1 2011-2012 FES Graduate Faculty members who regularly direct graduate student committees

| | Name | Position | Department or Agency other than FES | Academic Discipline |
|----|-----------------------------------|----------------------------------|--|--|
| 1 | Needham, Mark | Assistant Professor | | Human dimensions of natural resources, recreation tourism, wildlife |
| 2 | Tynon, Jo | Assistant Professor | | Recreation resource management |
| 3 | Grotta, Amy | Assistant Professor - Extension | | Forest management |
| 4 | Withrow- Robinson, Bradford | Assistant Professor – Extension | | Forest management education, conservation restoration |
| 5 | Morzillo, Anita | Assistant Professor Sr. Research | | Landscape ecology, wildlife ecology, human dimensions |
| 6 | Betts, Matthew | Assistant Professor | | Forest wildlife landscape ecology |
| 7 | Albers, Jo | Associate Professor | | Applied landscape economics |
| 8 | Ganio, Lisa M | Associate Professor | | Statistics, biometrics, study design |
| 9 | Howe, Glenn T | Associate Professor | | Forest genetics, genomics |
| 10 | Rosenberger, Randall | Associate Professor | | Environmental economics |
| 11 | Bliss, John | Professor | | Private forest policy, forest- based rural development |
| 12 | Bond, Barbara J | Professor | | Forest tree physiology |
| 13 | Doescher, Paul | Professor | | Restoration ecology |
| 14 | Harmon, Mark E | Professor | | Forest Ecology, ecosystem science |
| 15 | Hibbs, David E | Professor | | Community ecology, silviculture |
| 16 | Jensen, Ed | Professor | | Natural resource education, forest ecology |
| 17 | Law, Beverly | Professor | | Global change, forest science |
| 18 | Puettmann, Klaus | Professor | | Silviculture, forest ecology |
| 19 | Ripple, Bill | Professor | | Wildlife habitat analysis, landscape ecology |
| 20 | Ross, Darrell W | Professor | | Integrated forest protection, entomology |
| 21 | Shelby, Bo | Professor | | Social science and natural resources, recreation behavior and management |

| 22 | Shindler, Bruce | Professor | | Human Interactions for Natural Resource Planning and Decision-making |
|----|-------------------------|-----------------------------|---------------------------|--|
| 23 | Johnson, K. Norman | Distinguished Professor | | Forest planning, harvest scheduling, public land forest policy |
| 24 | Strauss, Steven H | Distinguished Professor | | Forest genetics, biotechnology |
| 25 | Simon-Brown, Viviane | Professor - Extension | | Human dimensions of natural resource sustainability |
| 26 | Salwasser, Hal | Professor and Dean | | Wildlife biology |
| 27 | McComb, Brenda | Professor and FES Dpt. Head | | Forest and wildlife ecology |
| 28 | Sollins, Phil | Professor Emeritus | | Forest ecosystems and soils |
| 29 | Waring, Dick | Professor Emeritus | | Physiological ecology |
| 30 | Radosevich, Steve | Professor Emeritus | | Forest ecology, sustainable forestry, invasive plant species |
| 31 | Rivers, James | Research Associate | | Wildlife ecology |
| 32 | Bishaw, Badege | Instructor | | Agroforestry, social forestry, silviculture, international forestry |
| | | | Botany Plant | |
| 33 | Hansen, Everett | Adjunct Professor | Pathology | Forest pathology |
| 34 | Jones, Julia | Adjunct Professor | Geosciences | Forest hydrology, surface processes, biogeography |
| 35 | Myrold, David | Adjunct Professor | Crop and Soil Science | LTER, soil microbiology, forest soils |
| 36 | Lajtha, Kate | Adjunct Professor | Botany Plant Pathology | Nutrient cycling, soil organic matter dynamics, forest biogeochemistry |
| 37 | Lachenbruch, Barb | Adjunct Professor | Wood Science | Ecophysiology of living trees, wood quality for utilization |
| 38 | McCulloh, Kate | Adjunct Research Associate | Wood Science | Plant physiology, long- distance transport of water by plants |
| 39 | Bailey, John | Adjunct Associate Professor | FERM | Silviculture, restoration, fuels and fire management |
| 40 | Adams, Michael | Courtesy | USGS | Wildlife ecology, aquatic ecology |
| 41 | Cohen, Warren | Courtesy | USFS | Remote sensing |
| 42 | Gray, Andy | Courtesy | USFS | Forest ecology |
| 43 | Hagar, Joan | Courtesy | USFS | Wildlife biology |
| 44 | Perakis, Steve | Courtesy | USGS | Ecosystem biogeochemistry |
| 45 | Pyke, David | Courtesy | USGS | Plant population ecology |
| 46 | Smith, Jane | Courtesy | USFS | Forest mycology |
| 47 | Spies, Tom | Courtesy | USFS | Forest ecology |

| 48 Taylor II, Jimmy D Courtesy USDA APHIS Wildlife management | |
|---|--|
|---|--|

Table III.22011-2012FES Graduate Faculty members who do not regularly direct graduatestudent committees.These faculty members serve on graduate committees or teach specializedcourses.

| | Name | Position | Department or Agency other than FES | Academic Discipline |
|----|---------------------------|--|---|--|
| 1 | Lach, Denise | Adjunct Associate Professor | Sociology | Environmental natural resource sociology, water conflict and dispute resolution |
| 2 | Mclver, Jim | Adjunct Associate Professor | Eastern OR Ag Research Station | Forest and range ecology and management, insect ecology |
| 3 | Walker, Gregg | Adjunct Professor | Speech Comminication | Conflict management, natural resource decision making |
| 4 | Unsworth, Michael | Adjunct Professor Emeritus | COAS | Biomicrometeorology |
| 5 | Lunch, William | Adjunct Professor | Political Science | Political institutions, regional politics, environmental, natural resource and science policy |
| 6 | Sisock, Mary | Adjunct, Director Ties to the Land | Business | Social science outreach |
| 7 | Kennedy, Robert | Assistant Professor Sr.Research | | Remote Sensing |
| 8 | Turner, David P | Assistant Professor Sr.Research | | Ecological modeling, climate science |
| 9 | Reuter, Ron | Associate Professor Cascades | | Pedology, soil science, wetland soils |
| 10 | Krankina, Olga N | Associate Professor Sr.Research | | Carbon cycling |
| 11 | Lindberg, Kreg | Associate Professor Cascades | | Eco-tourism |
| 12 | Bormann, Bernard | Courtesy | USFS | Long-term ecosystem productivity |
| 13 | Brooks, J Renee | Courtesy | US EPA | Plant physiologist |
| 14 | Compton, Jana | Courtesy | US EPA | Soil ecosystem ecology |
| 15 | Kelsey, Rick | Courtesy | USFS | Entomology |
| 16 | Kennedy, Rebecca | Courtesy | USFS | Forest landscape ecology |
| 17 | Kruger, Linda | Courtesy | USFS | Social science |
| 18 | St. Clair, John (Brad) | Courtesy | USFS | Forest Genetics |
| 19 | Swanson, Fred | Courtesy | USFS | Geomorphology |
| 20 | Trappe, Jim | Courtesy | USFS | Fungal taxonomy |
| 21 | Woodruff, David | Courtesy | | Tree physiology |
| 22 | Harry, David | Director – Forest Molecular Breeding/Outreach | | Molecular genetics, genomics tools |
| 23 | Schulze, Mark | Director – HJ Andrews Experimental Forest | | Wildlife ecology |

| 24 | Huso, Manuela | Professional Faculty | Statistics, study design |
|----|--------------------------|----------------------|---|
| 25 | Campbell, John L. | Research Associate | Ecosystem science |
| 26 | Csuti, Blair | Research Associate | Wildlife habitat relationships, vertebrate systematics |
| 27 | Jayawickrama, Keith J | Research Associate | NW Tree Improvement Cooperative |
| 28 | Olsen, Keith | Research Associate | Geospatial programming, GIS analysis |
| 29 | Ye, Terrance Zhihong | Research Associate | NW Tree Improvement Cooperative |
| 30 | Yang, Zhiqiang | Research Associate | Genetics |
| 31 | Zahler, David | Senior Instructor | Director – Peace Corps Masters Program |

Appendix IV

Graduate Learning Outcomes

Annual Evaluation Report

AY2012 – AY2016

for

M.F, M.S and Ph.D. degrees

AY2016: M.F. in Forest Ecosystems and Society

| Program Information | | | | | | | |
|---|--|--|--|--|--|--|--|
| Program: | | Forest Ecosyste | ms and Society | | | | |
| College or Administrative Division: | | Forest Ecosyste | | | | | |
| Subunit(s): | | | | | | | |
| Report Submitted By: | | Lisa M. Ganio | | | | | |
| Email address: | | Lisa.ganio@ore | gonstate.edu | | | | |
| Date Submitted: | | 4/17/2017 | Benetatereau | | | | |
| Assessment Period: | | AY2016 | | | | | |
| Due Date: | | | | | | | |
| | | | | | | | |
| | University: Grad | duate Learning O | utcomes (GLOs) fo | or Doctoral | | | |
| | | • | enate on April 14, | | | | |
| Outcomes: University and program level student learning outcome (GLO) | Conduct research or produce some other form of creative work | Demonstrate mastery of subject material | Conduct scholarly or professional activities in an ethical manner | Effectively communicate in field of study | Program level disciplinary knowledge Program level transdisciplinary knowledge Program level communication skills Program level critical thinking skills Program level research skills Program level ethics skills Program level policy skills Program level teaching (Ph.D Only) | | |
| Outcomes: What year was this program level learning outcome developed or most recently changed? | NA | NA | NA | NA | All were reviewed for applicability in AY2015 | | |
| Assessment Method | | | | | | | |
| Assessment Method Assessment Method ¹ : List the | | | | | Fach student with a subscription that identifies the second fit. | | |
| measures or instruments used to assess each outcome. [How do students demonstrate their attainment of the learning outcome? How is their learning evaluated?] At least one of these must be a direct measure. For additional guidance see: http://oregonstate.edu/admin/aa/apa a/assessment-resources | Successful defense of thesis and research | Successful defense of thesis and research | Be trained in this topic and successfully adress questions in defense | | Each student writes a plan that identifies the specific demonstrable actions they will be by virtue of achieving the LO's. This plan is written and approved by the student's major professor or committee in the 3rd (MS) or 5th (PhD) term of enrollment. At the defense and at prelims (phd only) the committee examines the student to ascertain if they have met the LO's. The result is recorded on a form that is filed in the student's file. | | |
| Assessment Method: Has this assessment method changed since the last reporting cycle? Yes or No. Explain any changes. | No | No | No | | We evaluated the LO's in 2014-2015. | | |

| ¹ In order to explore trends in the data, we advise that assessment method remain consistent from year-to-year. | | | | |
|--|--|--|--|---|
| Benchmark for evaluating satisfactory achievement of learning outcome | | | | |
| Benchmark ² : What benchmark or milestone - related to the specific measure or instrument - is used to determine whether the outcome has been satisfactorily met by the students? | Passing their final defense | Passing their final defense | Evidence of training on Program of Study (but see our program LO's) | Each committee determines this for the specific student. The plan, written by the student and approved by the professor usually described the demonstrable actions the student will be able to do. |
| Benchmark: Describe any changes to the benchmark or milestone since the last reporting cycle. | | | | None |
| ² .In order to explore trends in the data, we advise that benchmarks remain consistent from year-to-year. | | | | |
| Process used for gathering | | | | |
| Process: Describe the data collection process (e.g., Who is involved? How is the data collected?) | defense outcom Program Directo | nator tracks stude es so the program or won't sign off or ining the responsi ided. | n has record. n Program of | An evaluation rubric is used to record if the student met, exceeded or failed to exceed expectations for the LO. The completed, and signed, rubric is kept with the student's files in the office. The program can then view the forms. At assessment time the Graduate Program director revews the forms from all students who graduated in the period in question and summarizes the % that meet expectations or exceed expectations as well as the number of planned publications and presentations. |
| What do the data show about | | | | |
| Results: What do the data show about student learning relative to the specific learning outcome? Describe any result, pattern, or trends that you identify as meaningful or that highlights an area(s) of concern or success. | We are meeting our goal/objective at this time. | We are meeting our goal/objective at this time. | We are meeting our goal/objective at this time. | We did not have any graduate MF students in AY2016 |
| | | | | |
| Actions Actions: Describe any course-level (content, pedagogical, structural, etc.) changes that are an outgrowth of the | None planned at this time | None planned at this time | None planned at this time | None planned at this time |

| current year's assessment of this | | | | | | |
|---|------------------------------|------------------------------|--|--|--|--|
| outcome. Include timelines. | | | | | | |
| Actions: Describe any program or degree-level changes that are an outgrowth of the current year's assessment of this outcome. Include timeline. | None planned at this time | None planned at this time | None planned at this time | | The results will be reported to faculty at next department meeting. Previous dept. meeting was cancelled. I expect a discussion about the low percentage of publications. | |
| | | | | | | |
| Full-Cycle Impact | | | | | | |
| <i>Full-Cycle impact</i> : If this learning outcome has been assessed previously and is being reported on again this year, what impact have the changes had (if any) on student learning? If you have not previously assessed this learning outcome, please indicate the year you will revisit this outcome. | | | | | Summary statistics have been presented to faculty at each assessment. The general concensus seems to be that our current requirements and the methods we use use advise MS students is adequate. It should be noted that our department has been strongly focused on undergraduate teaching so changes to the graduate program have not been a primary priority. | |
| Process | | | | | | |
| Process: Describe the process the program used to reflect on the outcome data. | | | Summaries of the metrics are presented at faculty meeting for discussion. | | | |
| Process: Were there any challenges or concerns? | None | | None | | | |
| Process: How are the results of your assessment effort related to strategic planning and overall program review? | | | Discussed among faculty with the goal of having a general understanding of each other's expectations for the quantity and quality of work requried for an MF degree. | | | |
| Process: Are there specific data archiving notes for the outcome(s) you are reporting on in this report? | | | Not at this time | | | |
| Plans | | | | | | |
| Describe the unit's (or sub-units) assessment plans for the upcoming year. | | | Continue to use our current method | | | |

AY2016: M.S. in Forest Ecosystems and Society

| Program Information | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| Program: | Forest Ecosystems and Society | | | | | | | |
| College or Administrative Division: | | Forest Ecosyste | | | | | | |
| Subunit(s): | | , | , | | | | | |
| Report Submitted By: | | Lisa M. Ganio | | | | | | |
| Email address: | | Lisa.ganio@ore | gonstate.edu | | | | | |
| Date Submitted: | | 4/17/2017 | | | | | | |
| Assessment Period: | | AY2016 | | | | | | |
| Due Date: | | | | | | | | |
| | | | | | | | | |
| | University: Grad | duate Learning O | utcomes (GLOs) fo | or Doctoral | | | | |
| | students (appro | ved by Faculty Se | enate on April 14, | 2011) | | | | |
| Outcomes: University and program level student learning outcome (GLO) | Conduct research or produce some other form of creative work | Demonstrate mastery of subject material | Conduct scholarly or professional activities in an ethical manner | Effectively communicate in field of study | Program level disciplinary knowledge Program level transdisciplinary knowledge Program level communication skills Program level critical thinking skills Program level research skills Program level ethics skills Program level policy skills Program level teaching (Ph.D Only) | | | |
| Outcomes: What year was this program level learning outcome developed or most recently changed? | NA | NA | NA | NA | All were reviewed for applicability in AY2015 | | | |
| Assessment Method | | | | | | | | |
| Assessment Method ¹ : List the measures or instruments used to assess each outcome. [How do students demonstrate their attainment of the learning outcome? How is their learning evaluated?] At least one of these must be a direct measure. For additional guidance see: http://oregonstate.edu/admin/aa/apa a/assessment-resources | Successful defense of thesis and research | Successful defense of thesis and research | Be trained in this topic and successfully adress questions in defense | | Each student writes a plan that identifies the specific demonstrable actions they will be by virtue of achieving the LO's. This plan is written and approved by the student's major professor or committee in the 3rd (MS) or 5th (PhD) term of enrollment. At the defense and at prelims (phd only) the committee examines the student to ascertain if they have met the LO's. The result is recorded on a form that is filed in the student's file. | | | |
| Assessment Method: Has this assessment method changed since the last reporting cycle? Yes or No. Explain any changes. | No | No | No | | We evaluated the LO's in 2014-2015. | | | |

| ¹ In order to explore trends in the data, | | | | |
|--|--|------------------------------|------------------------------|---|
| we advise that assessment method | | | | |
| remain consistent from year-to-year. | | | | |
| Benchmark for evaluating satisfactory | | | | |
| achievement of learning outcome | | | | |
| Benchmark ² : What benchmark or | | | Evidence of | |
| milestone - related to the specific | | | training on | Each committee determines this for the specific student. The |
| measure or instrument - is used to | Passing their | Passing their | Program of | plan, written by the student and approved by the professor |
| determine whether the outcome has | final defense | final defense | Study (but see | usually described the demonstrable actions the student will |
| been satisfactorily met by the | | | our program | be able to do. |
| students? | | | LO's) | |
| Benchmark: Describe any changes to | | | | |
| the benchmark or milestone since the | | | | None |
| last reporting cycle. | | | | |
| ² .In order to explore trends in the data, we advise that benchmarks remain | | | | |
| consistent from year-to-year. | | | | |
| consistent from year-to-year. | | | | |
| Process used for gathering | | | | |
| Process: Describe the data collection process (e.g., Who is involved? How is the data collected?) | Program Coordinator tracks students and defense outcomes so the program has record. Program Director won't sign off on Program of Study unless training the responsible conduct of research is provided. | | | An evaluation rubric is used to record if the student met, exceeded or failed to exceed expectations for the LO. The completed, and signed, rubric is kept with the student's files in the office. The program can then view the forms. At assessment time the Graduate Program director revews the forms from all students who graduated in the period in question and summarizes the % that meet expectations or exceed expectations as well as the number of planned publications and presentations. |
| What do the data show about | | | | |
| Results: What do the data show about student learning relative to the specific learning outcome? Describe any result, | | | | All MS students who graduated in Ay2016 meet expectations in these learning outcomes. More surprising is that only 2 of our 11 MS students produced a peer-revewed publication |
| pattern, or trends that you identify as | | | | and 2 additional student published a non-peer-reviewed |
| meaningful or that highlights an | | | | paper in addition to their thesis. All but 3 students gave oral |
| area(s) of concern or success. | | | | presentations. One student did not produce any output |
| | | | | except the thesis. |
| Actions | | | | |
| Actions: Describe any course-level | None planned | Nono planned | Nono planned | |
| (content, pedagogical, structural, etc.) | None planned at this time | None planned at this time | None planned at this time | None planned at this time |
| changes that are an outgrowth of the | | | | |

| current year's assessment of this | | | | | | |
|---|------------------------------|------------------------------|--|--------------------|--|--|
| outcome. Include timelines. | | | | | | |
| Actions: Describe any program or degree-level changes that are an outgrowth of the current year's assessment of this outcome. Include timeline. | None planned at this time | None planned at this time | None planned at this time | | The results will be reported to faculty at next department meeting. Previous dept. meeting was cancelled. I expect a discussion about the low percentage of publications. | |
| | | | | | | |
| Full-Cycle Impact | | | | | | |
| <i>Full-Cycle impact</i> : If this learning outcome has been assessed previously and is being reported on again this year, what impact have the changes had (if any) on student learning? If you have not previously assessed this learning outcome, please indicate the year you will revisit this outcome. | | | | | Summary statistics have been presented to faculty at each assessment. The general concensus seems to be that our current requirements and the methods we use use advise MS students is adequate. It should be noted that our department has been strongly focused on undergraduate teaching so changes to the graduate program have not been a primary priority. | |
| Process | | | | | | |
| Process: Describe the process the program used to reflect on the outcome data. | | | Summaries of t | ne metrics are pre | esented at faculty meeting for discussion. | |
| Process: Were there any challenges or concerns? | None | | None | | | |
| Process: How are the results of your assessment effort related to strategic planning and overall program review? | | | Discussed among faculty with the goal of having a general understanding of each other's expectations for the quantity and quality of work requried for an MS degree. | | | |
| Process: Are there specific data archiving notes for the outcome(s) you are reporting on in this report? | | | Not at this time | | | |
| Plans | | | | | | |
| Describe the unit's (or sub-units) assessment plans for the upcoming year. | | | Continue to use our current method | | | |

AY2016: Ph.D. in Forest Ecosystems and Society

| Program Information | | | | | | | |
|--|--|--|--|--|--|--|--|
| Program: | | Forest Ecosyste | ms and Society | | | | |
| College or Administrative Division: | | Forestry | | | | | |
| Subunit(s): | | | | | | | |
| Report Submitted By: | | Lisa M. Ganio | | | | | |
| Email address: | | Lisa.ganio@ore | gonstate edu | | | | |
| Date Submitted: | | Lisu.gunioeore | Sonstate.edu | | | | |
| Assessment Period: | | AY2016 | | | | | |
| Due Date: | | A12010 | | | | | |
| Due Date. | | | | | | | |
| | University: Grad | duate Learning O | utcomes (GLOs) fo | or Doctoral | | | |
| | | | enate on April 14, | | | | |
| Outcomes: University and program level student learning outcome (GLO) | Conduct research or produce some other form of creative work | Demonstrate mastery of subject material | Conduct scholarly or professional activities in an ethical manner | Effectively communicate in field of study | Program level disciplinary knowledge Program level transdisciplinary knowledge Program level communication skills Program level critical thinking skills Program level research skills Program level ethics skills Program level policy skills Program level teaching (Ph.D Only) | | |
| Outcomes: What year was this program level learning outcome developed or most recently changed? | NA | NA | NA | NA | All were reviewed for applicability in AY2015 | | |
| Assessment Method | | | | | | | |
| Assessment Method ¹ : List the measures or instruments used to assess each outcome. [How do students demonstrate their attainment of the learning outcome? How is their learning evaluated?] At least one of these must be a direct measure. For additional guidance see: http://oregonstate.edu/admin/aa/apa a/assessment-resources | Successful defense of thesis and research | Successful defense of thesis and research | Be trained in this topic and successfully adress questions in defense | | Each student writes a plan that identifies the specific demonstrable actions they will be by virtue of achieving the LO's. This plan is written and approved by the student's major professor or committee in the 3rd (MS) or 5th (PhD) term of enrollment. At the defense and at prelims (phd only) the committee examines the student to ascertain if they have met the LO's. The result is recorded on a form that is filed in the student's file. | | |
| Assessment Method: Has this assessment method changed since the last reporting cycle? Yes or No. Explain any changes. | No | No | No | | We evaluated the LO's in 2014-2015. | | |

| ¹ In order to explore trends in the data, we advise that assessment method remain consistent from year-to-year. | | | | |
|--|--|--|--|---|
| Benchmark for evaluating satisfactory | | | | |
| achievement of learning outcome Benchmark ² : What benchmark or milestone - related to the specific measure or instrument - is used to determine whether the outcome has | Passing their final defense | Passing their final defense | Evidence of training on Program of Study (but see | Each committee determines this for the specific student. The plan, written by the student and approved by the professor usually described the demonstrable actions the student will |
| been satisfactorily met by the students? | | linal defense | our program | be able to do. |
| Benchmark: Describe any changes to the benchmark or milestone since the last reporting cycle. | | | | None |
| ² .In order to explore trends in the data, we advise that benchmarks remain consistent from year-to-year. | | | | |
| | | | | |
| Process used for gathering | | | | |
| Process: Describe the data collection process (e.g., Who is involved? How is the data collected?) | Program Coordinator tracks students and defense outcomes so the program has record. Program Director won't sign off on Program of Study unless training the responsible conduct of research is provided. | | | An evaluation rubric is used to record if the student met, exceeded or failed to exceed expectations for the LO. The completed, and signed, rubric is kept with the student's files in the office. The program can then view the forms. At assessment time the Graduate Program director revews the forms from all students who graduated in the period in question and summarizes the % that meet expectations or exceed expectations as well as the number of planned publications and presentations. |
| | | | | |
| What do the data show about <i>Results:</i> What do the data show about student learning relative to the specific learning outcome? Describe any result, pattern, or trends that you identify as meaningful or that highlights an area(s) of concern or success. | We are meeting our goal/objective at this time. | We are meeting our goal/objective at this time. | We are meeting our goal/objective at this time. | Since our program is new, we had 3 PhD students who converted from the old Forest Science Program to FES. The students who converted were excused from participating in the assessment process on the request of their advisors. We anticipate our first doctoral students to graduate next year |
| | | | | |
| Actions | | | | |
| Actions: Describe any course-level (content, pedagogical, structural, etc.) changes that are an outgrowth of the | None planned at this time | None planned at this time | None planned at this time | None planned at this time |

| current year's assessment of this | | | | | |
|--|------------------------------|------------------------------|---|--|--|
| outcome. Include timelines. | | | | | |
| <i>Actions:</i> Describe any program or degree-level changes that are an outgrowth of the current year's assessment of this outcome. Include timeline. | None planned at this time | None planned at this time | None planned at this time | | The results will be reported to faculty at next department meeting. Previous dept. meeting was cancelled. I expect a discussion about the low percentage of publications. |
| | | | | | |
| Full-Cycle Impact | | | | | |
| <i>Full-Cycle impact</i> : If this learning outcome has been assessed previously and is being reported on again this year, what impact have the changes had (if any) on student learning? If you | | | | | Summary statistics have been presented to faculty at each assessment. The general concensus seems to be that our current requirements and the methods we use use advise our students is adequate. It should be noted that our |
| have not previously assessed this learning outcome, please indicate the year you will revisit this outcome. | | | | | department has been strongly focused on undergraduate teaching so changes to the graduate program have not been a primary priority. |
| year you will revisit this outcome. | | | | | |
| Process | | | | | |
| Process: Describe the process the program used to reflect on the outcome data. | | | | | o be presented at early spring faculty meetings for discussion be added to agenda for discussion next term |
| Process: Were there any challenges or concerns? | None | | None | | |
| Process: How are the results of your assessment effort related to strategic planning and overall program review? | | | Discussed among faculty with the goal of having a general understanding of each other's expectations for the quantity and quality of work requried for a doctoral degree. | | |
| Process: Are there specific data archiving notes for the outcome(s) you are reporting on in this report? | | | Not at this time | | |
| Plans | | | | | |
| Describe the unit's (or sub-units) assessment plans for the upcoming | | | Continue to use | | |

AY2015: MF in Forest Ecosystems and Society

assessment plan was not done in AY15

AY2015: MS in Forest Ecosystems and Society

| FES Masters Program Annual Reporting - Assessment and Reflection on Graduate Learning Outcomes (GLO) (1/3) | | | | | | | |
|---|---|---|---|---|--|--|--|
| List the university and program level graduate learning outcomes (GLO). | Produce and defend an original significant contribution to knowledge | Demonstrate mastery of subject material | Conduct scholarly or professional activities in an ethical manner | Program level Disciplinary knowledge | | | |
| Is this GLO new or revised since the last year you reported on it? (write no, new, or revised) | NO | NO | NO | NO | | | |
| What do the data show about student learning or success relative to the outcomes you are reporting on this year? | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | | | |
| Describe any course-level changes related to this outcome that will result /have resulted from assessment activities in this reporting year. Include timelines. | | | | | | | |
| Describe any program/degree level (e.g. curricular, outcomes, goals, objectives) changes related to this outcome that have resulted/will result from GLO assessment activities in this reporting year and/or from other impetuses (e.g. feedback from accreditors). | | | | In AY2015 we implemented the assessment rubric. We noted that 1/7 MS students taking their final exam did not have an assessment plan and 3/6 students with a plan did not turn in a final assessment. Of the 3 students who turned in as assessment, all met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | | | |
| How did your program reflect on the data you are reporting and who was involved? Were there any challenges or concerns? How are the results of your assessment efforts related to strategic planning and overall program review? | | | | Initial reflection is carried out by the Grad Program director who creates a draft report. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. | | | |

| FES Masters Program Annual Reporting - Assessment and Reflection on Graduate Learning Outcomes (GLO) (2/3) | | | | | | | |
|---|--|---|---|---|--|--|--|
| List the university and program level graduate learning outcomes (GLO). | Program level Transdisciplinary knowledge | Program level Communication skills | Program level Critical thinking skills | Program level Research skills | | | |
| Is this GLO new or revised since the last year you reported on it? (write no, new, or revised) | NO | NO | NO | NO | | | |
| What do the data show about student learning or success relative to the outcomes you are reporting on this year? | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | | | |
| Describe any course-level changes related to this outcome that will result /have resulted from assessment activities in this reporting year. Include timelines. | We held faculty meetings and a faculty retreat to develop an interdisciplinary course. However, we are lacking faculty capacity to teach this course so we will wait until new faculty are hired before pursuing the implementation of the course | | | | | | |
| Describe any program/degree level (e.g. curricular, outcomes, goals, objectives) changes related to this outcome that have resulted/will result from GLO assessment activities in this reporting year and/or from other impetuses (e.g. feedback from accreditors). | In AY2015 we implemented the assessment rubric. We noted that 1/7 MS students taking their final exam did not have an assessment plan and 3/6 students with a plan did not turn in a final assessment. Of the 3 students who turned in as assessment, all met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | In AY2015 we implemented the assessment rubric. We noted that 1/7 MS students taking their final exam did not have an assessment plan and 3/6 students with a plan did not turn in a final assessment. Of the 3 students who turned in as assessment, all met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | In AY2015 we implemented the assessment rubric. We noted that 1/7 MS students taking their final exam did not have an assessment plan and 3/6 students with a plan did not turn in a final assessment. Of the 3 students who turned in as assessment, all met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | In AY2015 we implemented the assessment rubric. We noted that 1/7 MS students taking their final exam did not have an assessment plan and 3/6 students with a plan did not turn in a final assessment. Of the 3 students who turned in as assessment, all met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | | | |
| How did your program reflect on the data you are reporting and who was involved? Were there any challenges or concerns? How are the results | Initial reflection is carried out by the Grad Program director who creates a draft report. The report is reviewed by the department head prior to | Initial reflection is carried out by the Grad Program director who creates a draft report. The report is reviewed by the department head prior to submission and shared with faculty at | Initial reflection is carried out by the Grad Program director who creates a draft report. The report is reviewed by the department head prior to submission and shared with faculty at | Initial reflection is carried out by the Grad Program director who creates a draft report. The report is reviewed by the department head prior to submission and shared with faculty at | | | |

| of your assessment efforts | submission and shared with | the next available department | the next available department | the next available department |
|-----------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| related to strategic planning and | faculty at the next available | meeting. | meeting. | meeting. |
| overall program review? | department meeting. | | | |

| FES Masters Program Annual Reporting - Assessment and Reflection on Graduate Learning Outcomes (GLO) (3/3) | | | | | |
|---|--|--|--|--|--|
| List the university and program level graduate learning outcomes (GLO). | | rogram level Ethics skills | Program level Policy skills | | |
| Is this GLO new or revised since the last year you reported on it? (write no, new, or revised) | NO | | NO | | |
| What do the data show about student learning or success relative to the outcomes you are reporting on this year? | All of our students are meeting e Program learning outcomes. | xpectations with respect to OSU and | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | | |
| Describe any course-level changes related to this outcome that will result /have resulted from assessment activities in this reporting year. Include timelines. | | | | | |
| Describe any program/degree level (e.g. curricular, outcomes, goals, objectives) changes related to this outcome that have resulted/will result from GLO assessment activities in this reporting year and/or from other impetuses (e.g. feedback from accreditors). | students taking their final exam of students with a plan did not turn who turned in as assessment, all will implement better tracking of We also noted that students who committees without regular FES | assessment rubric. We noted that 1/7 MS did not have an assessment plan and 3/6 in a final assessment. Of the 3 students met all expectations. In the next year we GLO assessment plans for each student. o did not turn in assessments had faculty on them. We will now require that regular member of the FES department. | In AY2015 we implemented the assessment rubric. We noted that 1/7 MS students taking their final exam did not have an assessment plan and 3/6 students with a plan did not turn in a final assessment. Of the 3 students who turned in as assessment,all met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | | |
| How did your program reflect on the data you are reporting and who was involved? Were there any challenges or concerns? How are the results of your assessment efforts related to strategic planning and overall program review? | draft report. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. s? How are the results assessment efforts to strategic planning and | | Initial reflection is carried out by the Grad Program director who creates a draft report. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. | | |
| Plans Describe the program's assessmen | t plans for the upcoming | | | | |
| year. | · · · · · · · · · · · · · · · · · · · | | rubric based on student-committee developed specific learning outcomes. | | |
| Attachments- Please share any rele | evant attachments related to the i | tems/results you are reporting in this report. | | | |

| FES Masters Program Ann | FES Masters Program Annual Reporting - Assessment and Reflection on Graduate Learning Outcomes (GLO) (2/2) | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| List the university and program level graduate learning outcomes (GLO). | Program level Communication skills | Program level Critical thinking skills | Program level Research skills | Program level Ethics skills | Program level Policy skills | | | |
| Is this GLO new or revised since the last year you reported on it? (write no, new, or revised) | NO | NO | NO | NO | NO | | | |
| What do the data show about student learning or success relative to the outcomes you are reporting on this year? | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | | | |
| Describe any course-level changes related to this outcome that will result /have resulted from assessment activities in this reporting year. Include timelines. | | | | | | | | |
| Describe any program/degree level (e.g. curricular, outcomes, goals, objectives) changes related to this outcome that have resulted/will result from GLO assessment activities in this reporting year and/or from other impetuses (e.g. feedback from accreditors). | In this academic year our graduate faculty developed and adopted an assessment rubric to be used at prelim exams and final defenses to more clearly document the degree to which a student meets expectations for our learning outcomes. This rubric will begin to be implemented next year and will allow us to understand if some students stuggle with particular learning outcomes. | In this academic year our graduate faculty developed and adopted an assessment rubric to be used at prelim exams and final defenses to more clearly document the degree to which a student meets expectations for our learning outcomes. This rubric will begin to be implemented next year and will allow us to understand if some students stuggle with particular learning outcomes. | In this academic year our graduate faculty developed and adopted an assessment rubric to be used at prelim exams and final defenses to more clearly document the degree to which a student meets expectations for our learning outcomes. This rubric will begin to be implemented next year and will allow us to understand if some students stuggle with particular learning outcomes. | In this academic year our graduate faculty developed and adopted an assessment rubric to be used at prelim exams and final defenses to more clearly document the degree to which a student meets expectations for our learning outcomes. This rubric will begin to be implemented next year and will allow us to understand if some students stuggle with particular learning outcomes. | In this academic year our graduate faculty developed and adopted an assessment rubric to be used at prelim exams and final defenses to more clearly document the degree to which a student meets expectations for our learning outcomes. This rubric will begin to be implemented next year and will allow us to understand if some students stuggle with particular learning outcomes. | | | |
| How did your program reflect on the data you are reporting and who was involved? Were there any challenges or concerns? How are the results of your assessment efforts related to strategic planning and overall program review? | Reflection is carried out by the Grad Program director. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. | Reflection is carried out by the Grad Program director. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. | Reflection is carried out by the Grad Program director. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. | Reflection is carried out by the Grad Program director. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. | Reflection is carried out by the Grad Program director. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. | | | |

| Plans | |
|--|--|
| Describe the program's assessment plans for the upcoming | |
| vear. | |

Attachments- Please share any relevant attachments related to the items/results you are reporting in this report.

Template - Master's Program Assessment Plan (1/2)

Process

How does your unit reflect on the assessment data gathered and who is involved? How do the results of your assessment efforts relate to strategic planning and overall program review?

Graduate Program director reviews data and writes report for Graduate School. Report is shared with department head before submission and shared with graduate faculty.

What data are archived? Where, how and for what duration?

Student assessment forms and competency plans are maintained in FES department office according to departmental protocol.

Program Outcomes, Measures and Benchmarks or Milestones

| List the university and program level graduate learning outcomes (GLO). | Conduct research or produce some other form of creative work | Demonstrate mastery of subject material | Conduct scholarly or professional activities in an ethical manner | Program level Disciplinary knowledge | Program level Transdisciplinary knowledge |
|--|--|--|---|--|--|
| What year will you report on this outcome? (Every university GLO must be assessed annually and others at least once every five years.) | annually | annually | annually | annually | annually |
| List the measures/methods /instruments to be used to assess the outcome. Identify measures, methods, and/or instruments as being direct (D) or indirect (I). (At least one of these must be direct measures.) | Preliminary exam and final defense oral exam | Preliminary exam and final defense oral exam | Oral exam and student's plan for achieving competency in this area | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. |
| What benchmarks/milestones will you use to determine if the outcome has been satisfactorily met by the students?* | Successful final defense | Successful final defense | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. |

Pla

* Examples include courses, workshops, program of study, internship/externship, research proposal, presentations of research or project results, project or thesis defense, final report or thesis. This is not an exhaustive list of possibilities.

* Programs especially with options will likely have specific learning outcomes (competencies, goals, etc.). State those and how they are being assessed.

| Program Outcomes, Meas List the university and program level graduate learning outcomes (GLO). | sures and Benchmarks or N Program level Communication skills | lilestones Program level Critical thinking skills | Program level Research skills | Program level Ethics skills | Program level Policy skills |
|--|--|--|--|--|--|
| What year will you report on this outcome? (Every university GLO must be assessed annually and others at least once every five years.) | annually | annually | annually | annually | annually |
| List the measures/methods /instruments to be used to assess the outcome. Identify measures, methods, and/or instruments as being direct (D) or indirect (I). (At least one of these must be direct measures.) | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide th program assessment for tha year. |
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* Programs especially with options will likely have specific learning outcomes (competencies, goals, etc.). State those and how they are being assessed.

AY2015: Ph.D. in Forest Ecosystems and Society

| FES Doctoral Program Annual Reporting - Assessment and Reflection on Graduate Learning Outcomes (GLO) (1/3) | | | | | | | |
|---|---|---|---|---|--|--|--|
| List the university and program level graduate learning outcomes (GLO). | Produce and defend an original significant contribution to knowledge | Demonstrate mastery of subject material | Conduct scholarly or professional activities in an ethical manner | Program level Disciplinary knowledge | | | |
| Is this GLO new or revised since the last year you reported on it? (write no, new, or revised) | NO | NO | NO | NO | | | |
| What do the data show about student learning or success relative to the outcomes you are reporting on this year? | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | | | |
| Describe any course-level changes related to this outcome that will result /have resulted from assessment activities in this reporting year. Include timelines. | | | | | | | |
| Describe any program/degree level (e.g. curricular, outcomes, goals, objectives) changes related to this outcome that have resulted/will result from GLO assessment activities in this reporting year and/or from other impetuses (e.g. feedback from accreditors). | | | | In AY2015 we implemented the assessment rubric. We noted that 1/4 students taking their prelim exam did not have an assessment plan and 1/3 students with a plan did not turn in a final assessment. Of the 2 students who turned in as assessment, both met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | | | |
| How did your program reflect on the data you are reporting and who was involved? Were there any challenges or concerns? How are the results of your assessment efforts | | | | | | | |

| related to strategic planning and | | |
|-----------------------------------|--|--|
| overall program review? | | |

| FES Doctoral Program Annua | ES Doctoral Program Annual Reporting - Assessment and Reflection on Graduate Learning Outcomes (GLO) (2/3) | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|
| List the university and program level graduate learning outcomes (GLO). | Program level Transdisciplinary knowledge | Program level Communication skills | Program level Critical thinking skills | Program level Research skills | | | | | |
| Is this GLO new or revised since the last year you reported on it? (write no, new, or revised) | NO | NO | NO | NO | | | | | |
| What do the data show about student learning or success relative to the outcomes you are reporting on this year? | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | | | | | |
| Describe any course-level changes related to this outcome that will result /have resulted from assessment activities in this reporting year. Include timelines. | We held faculty meetings and a faculty retreat to develop an interdisciplinary course. However, we are lacking faculty capacity to teach this course so we will wait until new faculty are hired before pursuing the implementation of the course | | | | | | | | |
| Describe any program/degree level (e.g. curricular, outcomes, goals, objectives) changes related to this outcome that have resulted/will result from GLO assessment activities in this reporting year and/or from other impetuses (e.g. feedback from accreditors). | In AY2015 we implemented the assessment rubric. We noted that 1/4 students taking their prelim exam did not have an assessment plan and 1/3 students with a plan did not turn in a final assessment. Of the 2 students who turned in as assessment, both met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | In AY2015 we implemented the assessment rubric. We noted that 1/4 students taking their prelim exam did not have an assessment plan and 1/3 students with a plan did not turn in a final assessment. Of the 2 students who turned in as assessment, both met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | In AY2015 we implemented the assessment rubric. We noted that 1/4 students taking their prelim exam did not have an assessment plan and 1/3 students with a plan did not turn in a final assessment. Of the 2 students who turned in as assessment, both met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | In AY2015 we implemented the assessment rubric. We noted that 1/4 students taking their prelim exam did not have an assessment plan and 1/3 students with a plan did not turn in a final assessment. Of the 2 students who turned in as assessment, both met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | | | | | |
| How did your program reflect on the data you are reporting and who was involved? Were | Initial reflection is carried out by the Grad Program director who creates a draft report. The | Initial reflection is carried out by the Grad Program director who creates a draft report. The report is reviewed | Initial reflection is carried out by the Grad Program director who creates a draft report. The report is reviewed | Initial reflection is carried out by the Grad Program director who creates a draft report. The report is reviewed | | | | | |

| there any challenges or | report is reviewed by the | by the department head prior to | by the department head prior to | by the department head prior to |
|-----------------------------------|-------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| concerns? How are the results | department head prior to | submission and shared with faculty at | submission and shared with faculty at | submission and shared with faculty at |
| of your assessment efforts | submission and shared with | the next available department | the next available department | the next available department |
| related to strategic planning and | faculty at the next available | meeting. | meeting. | meeting. |
| overall program review? | department meeting. | | | |

| FES Doctoral Program Annual Reporting - Assessment and Reflection on Graduate Learning Outcomes (GLO) (3/3) | | | | | | | | |
|---|---|---|---|--|--|--|--|--|
| List the university and program level graduate learning outcomes (GLO). | Program level Ethics skills | Program level Policy skills | Program level Teaching (PhD only) | | | | | |
| Is this GLO new or revised since the last year you reported on it? (write no, new, or revised) | NO | NO | NO | | | | | |
| What do the data show about student learning or success relative to the outcomes you are reporting on this year? | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | | | | | |
| Describe any course-level changes related to this outcome that will result /have resulted from assessment activities in this reporting year. Include timelines. | | | | | | | | |
| Describe any program/degree level (e.g. curricular, outcomes, goals, objectives) changes related to this outcome that have resulted/will result from GLO assessment activities in this reporting year and/or from other impetuses (e.g. feedback from accreditors). | In AY2015 we implemented the assessment rubric. We noted that 1/4 students taking their prelim exam did not have an assessment plan and 1/3 students with a plan did not turn in a final assessment. Of the 2 students who turned in as assessment, both met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | In AY2015 we implemented the assessment rubric. We noted that 1/4 students taking their prelim exam did not have an assessment plan and 1/3 students with a plan did not turn in a final assessment. Of the 2 students who turned in as assessment, both met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | In AY2015 we implemented the assessment rubric. We noted that 1/4 students taking their prelim exam did not have an assessment plan and 1/3 students with a plan did not turn in a final assessment. Of the 2 students who turned in as assessment, both met all expectations. In the next year we will implement better tracking of GLO assessment plans for each student. We also noted that students who did not turn in assessments had committees without regular FES faculty on them. We will now require that all committees contain at least 1 regular member of the FES department. | | | | | |
| How did your program reflect on the data you are reporting and who was involved? Were there any challenges or concerns? How are the results of your assessment efforts related to strategic planning and overall program review? | Initial reflection is carried out by the Grad Program director who creates a draft report. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. | Initial reflection is carried out by the Grad Program director who creates a draft report. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. | Initial reflection is carried out by the Grad Program director who creates a draft report. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. | | | | | |
| Plans Describe the program's assessmer | at plans for the upcoming We will continue to im | plement the assessment rubric based on student-con | I | | | | | |
| year. | | ed out during the prelim exam and also at the final de | | | | | | |

Attachments- Please share any relevant attachments related to the items/results you are reporting in this report.

AY2014: MF in Forest Ecosystems and Society

assessment was not done in AY14

AY2014: M.S. in Forest Ecosystems and Society

| FES Masters Program Ann | FES Masters Program Annual Reporting - Assessment and Reflection on Graduate Learning Outcomes (GLO) (1/2) | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| List the university and program level graduate learning outcomes (GLO). | Produce and defend an original significant contribution to knowledge | Demonstrate mastery of subject material | Conduct scholarly or professional activities in an ethical manner | Program level Disciplinary knowledge | Program level Transdisciplinary knowledge | | | |
| Is this GLO new or revised since the last year you reported on it? (write no, new, or revised) | NO | NO | NO | NO | NO | | | |
| What do the data show about student learning or success relative to the outcomes you are reporting on this year? | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | | | |
| Describe any course-level changes related to this outcome that will result /have resulted from assessment activities in this reporting year. Include timelines. | | | | | We note a lack of graduate level course work in this area. We will pursue the development of such a course in the future. | | | |
| Describe any program/degree level (e.g. curricular, outcomes, goals, objectives) changes related to this outcome that have resulted/will result from GLO assessment activities in this reporting year and/or from other impetuses (e.g. feedback from accreditors). | | | | In this academic year our graduate faculty developed and adopted an assessment rubric to be used at prelim exams and final defenses to more clearly document the degree to which a student meets expectations for our learning outcomes. This rubric will begin to be implemented next year and will allow us to understand if some students stuggle with particular learning outcomes. | In this academic year our graduate faculty developed and adopted an assessment rubric to be used at prelim exams and final defenses to more clearly document the degree to which a student meets expectations for our learning outcomes. This rubric will begin to be implemented next year and will allow us to understand if some students stuggle with particular learning outcomes. | | | |
| How did your program reflect on the data you are reporting and who was involved? Were there any challenges or concerns? How are the | | | | Reflection is carried out by the Grad Program director. The report is reviewed by the department head prior to submission and shared with | Reflection is carried out by the Grad Program director. The report is reviewed by the department head prior to submission and shared with | | | |

| results of your assessment | | faculty at the next available | faculty at the next available |
|------------------------------|--|-------------------------------|-------------------------------|
| efforts related to strategic | | department meeting. | department meeting. |
| planning and overall program | | | |
| review? | | | |

| List the university and | ES Masters Program Annual Reporting - Assessment and Reflection on Graduate Learning Outcomes (GLO) (2/2) | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|
| program level graduate learning outcomes (GLO). | Program level Communication skills | Program level Critical thinking skills | Program level Research skills | Program level Ethics skills | Program level Policy skills | | | | |
| Is this GLO new or revised | | | | | | | | | |
| since the last year you | NO | NO | NO | NO | NO | | | | |
| reported on it? (write no, | | | | | | | | | |
| new, or revised) | | | | | | | | | |
| What do the data show | All of our students are | All of our students are | All of our students are | All of our students are | All of our students are | | | | |
| about student learning or | meeting expectations with | meeting expectations with | meeting expectations with | meeting expectations with | meeting expectations with | | | | |
| success relative to the | respect to OSU and Program | respect to OSU and Program | respect to OSU and Program | respect to OSU and Program | respect to OSU and Program | | | | |
| outcomes you are reporting | learning outcomes. | learning outcomes. | learning outcomes. | learning outcomes. | learning outcomes. | | | | |
| on this year? Describe any course-level | | | | | | | | | |
| changes related to this | | | | | | | | | |
| outcome that will result | | | | | | | | | |
| /have resulted from | | | | | | | | | |
| assessment activities in this | | | | | | | | | |
| reporting year. Include | | | | | | | | | |
| timelines. | | | | | | | | | |
| | In this academic year our | In this academic year our | In this academic year our | In this academic year our | In this academic year our | | | | |
| | graduate faculty developed | graduate faculty developed | graduate faculty developed | graduate faculty developed | graduate faculty developed | | | | |
| Describe any | and adopted an assessment | and adopted an assessment | and adopted an assessment | and adopted an assessment | and adopted an assessment | | | | |
| program/degree level (e.g. | rubric to be used at prelim | rubric to be used at prelim | rubric to be used at prelim | rubric to be used at prelim | rubric to be used at prelim | | | | |
| curricular, outcomes, goals, | exams and final defenses to | exams and final defenses to | exams and final defenses to | exams and final defenses to | exams and final defenses to | | | | |
| objectives) changes related | more clearly document the | more clearly document the | more clearly document the | more clearly document the | more clearly document the | | | | |
| to this outcome that have | degree to which a student | degree to which a student | degree to which a student | degree to which a student | degree to which a student | | | | |
| resulted/will result from GLO | meets expectations for our | meets expectations for our | meets expectations for our | meets expectations for our | meets expectations for our | | | | |
| assessment activities in this | learning outcomes. This rubric will begin to be | learning outcomes. This | learning outcomes. This rubric will begin to be | learning outcomes. This rubric will begin to be | learning outcomes. This rubric will begin to be | | | | |
| reporting year and/or from other impetuses (e.g. | implemented next year and | rubric will begin to be implemented next year and | implemented next year and | implemented next year and | implemented next year and | | | | |
| feedback from accreditors). | will allow us to understand if | will allow us to understand if | will allow us to understand if | will allow us to understand if | will allow us to understand if | | | | |
| recuback from accreations). | some students stuggle with | some students stuggle with | some students stuggle with | some students stuggle with | some students stuggle with | | | | |
| | particular learning outcomes. | particular learning outcomes. | particular learning outcomes. | particular learning outcomes. | particular learning outcomes | | | | |
| How did your program reflect | Reflection is carried out by | Reflection is carried out by | Reflection is carried out by | Reflection is carried out by | Reflection is carried out by | | | | |
| on the data you are reporting | the Grad Program director. | the Grad Program director. | the Grad Program director. | the Grad Program director. | the Grad Program director. | | | | |
| and who was involved? Were | The report is reviewed by the | The report is reviewed by the | The report is reviewed by the | The report is reviewed by the | The report is reviewed by the | | | | |
| there any challenges or | department head prior to | department head prior to | department head prior to | department head prior to | department head prior to | | | | |
| concerns? How are the | submission and shared with | submission and shared with | submission and shared with | submission and shared with | submission and shared with | | | | |

| results of your assessment | faculty at the next available | |
|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--|
| efforts related to strategic | department meeting. | |
| planning and overall program | | | | | | |
| review? | | | | | | |
| Plans | · | · | | | | |
| Describe the program's assessm | nent plans for the upcoming | | | | | |
| year. | | | | | | |
| Attachments- Please share any relevant attachments related to the items/results you are reporting in this report. | | | | | | |

| Template - Master's Program Assessment Plan (1/2) | | | | | | | | | |
|--|--|--|---|--|--|--|--|--|--|
| Process | | | | | | | | | |
| How does your unit reflect on t | How does your unit reflect on the assessment data gathered and who is involved? How do the results of your assessment efforts relate to strategic planning and overall program review? | | | | | | | | |
| | | • | is shared with department head before | ore submission and shared with grad | duate faculty. | | | | |
| What data are archived? Where | , | | | | | | | | |
| Student assessment forms and | competency plans are main | tained in FES department offi | ice according to departmental proto | col. | | | | | |
| Program Outcomes, Meas | sures and Benchmarks | or Milestones | | | | | | | |
| List the university and program level graduate learning outcomes (GLO). | Conduct research or produce some other form of creative work | Demonstrate mastery of subject material | Conduct scholarly or professional activities in an ethical manner | Program level Disciplinary knowledge | Program level Transdisciplinary knowledge | | | | |
| What year will you report on this outcome? (Every university GLO must be assessed annually and others at least once every five years.) | annually | annually | annually | annually | annually | | | | |
| List the measures/methods /instruments to be used to assess the outcome. Identify measures, methods, and/or instruments as being direct (D) or indirect (I). (At least one of these must be direct measures.) | Preliminary exam and final defense oral exam | Preliminary exam and final defense oral exam | Oral exam and student's plan for achieving competency in this area | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | | | | |
| What benchmarks/milestones will you use to determine if the outcome has been satisfactorily met by the students?* | Successful final defense | Successful final defense | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a | | | | |

| | | | student's committee are expected to participate in | student's committee are expected to participate in | student's committee are expected to participate in | |
|---|--|--|--|--|--|--|
| | | | assessment. | assessment. | assessment. | |
| * Examples include courses, workshops, program of study, internship/externship, research proposal, presentations of research or project results, project or thesis defense, final report or | | | | | | |
| thesis. This is not an exhaustive list of possibilities. | | | | | | |

* Programs especially with options will likely have specific learning outcomes (competencies, goals, etc.). State those and how they are being assessed.

| Template -Mastersl Progr | am Assessment Plan (2/2) | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| Program Outcomes, Measures and Benchmarks or Milestones | | | | | | | | |
| List the university and program level graduate learning outcomes (GLO). | Program level Communication skills | Program level Critical thinking skills | Program level Research skills | Program level Ethics skills | Program level Policy skills | | | |
| What year will you report on this outcome? (Every university GLO must be assessed annually and others at least once every five years.) | annually | annually | annually | annually | annually | | | |
| List the measures/methods /instruments to be used to assess the outcome. Identify measures, methods, and/or instruments as being direct (D) or indirect (I). (At least one of these must be direct measures.) | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | | | |
| What benchmarks/milestones will you use to determine if the outcome has been satisfactorily met by the students?* | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. | | | |

* Examples include courses, workshops, program of study, internship/externship, research proposal, presentations of research or project results, project or thesis defense, final report or thesis. This is not an exhaustive list of possibilities.

* Programs especially with options will likely have specific learning outcomes (competencies, goals, etc.). State those and how they are being assessed.

AY2014: Ph.D. in Forest Ecosystems and Society

| FES Doctoral Program Ann | FES Doctoral Program Annual Reporting - Assessment and Reflection on Graduate Learning Outcomes (GLO) (1/3) | | | | | | | |
|--|---|--|--|--|--|--|--|--|
| List the university and program level graduate learning outcomes (GLO). | Produce and defend an original significant contribution to knowledge | Demonstrate mastery of subject material | Conduct scholarly or professional activities in an ethical manner | Program level Disciplinary knowledge | Program level Transdisciplinary knowledge | | | |
| Is this GLO new or revised since the last year you reported on it? (write no, new, or revised) | NO | NO | NO | NO | NO | | | |
| What do the data show about student learning or success relative to the outcomes you are reporting on this year? | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | All of our students are meeting expectations with respect to OSU and Program learning outcomes. | | | |
| Describe any course-level changes related to this outcome that will result /have resulted from assessment activities in this reporting year. Include timelines. | | | | | We note a lack of graduate level course work in this area. We will pursue the development of such a course in the future. | | | |
| Describe any program/degree level (e.g. curricular, outcomes, goals, objectives) changes related to this outcome that have resulted/will result from GLO assessment activities in this reporting year and/or from other impetuses (e.g. feedback from accreditors). | | | | In this academic year our graduate faculty developed and adopted an assessment rubric to be used at prelim exams and final defenses to more clearly document the degree to which a student meets expectations for our learning outcomes. This rubric will begin to be implemented next year and will allow us to understand if some students stuggle with particular learning outcomes. | In this academic year our graduate faculty developed and adopted an assessment rubric to be used at prelim exams and final defenses to more clearly document the degree to which a student meets expectations for our learning outcomes. This rubric will begin to be implemented next year and will allow us to understand if some students stuggle with particular learning outcomes. | | | |
| How did your program reflect on the data you are reporting and who was involved? Were there any challenges or concerns? How are the results of your assessment efforts related to strategic | | | | Reflection is carried out by the Grad Program director. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. | Reflection is carried out by the Grad Program director. The report is reviewed by the department head prior to submission and shared with faculty at the next available department meeting. | | | |

| planning and overall program | | | |
|------------------------------|--|--|--|
| review? | | | |

| FES Doctoral Program Annual Reporting - Assessment and Reflection on Graduate Learning Outcomes (GLO) (2/3) | | | | | |
|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| List the university and | Program level |
| program level graduate | Communication skills | Critical thinking skills | Research skills | Ethics skills | Policy skills |
| learning outcomes (GLO). | | 5 | | | ŕ |
| Is this GLO new or revised | | | | | |
| since the last year you | NO | NO | NO | NO | NO |
| reported on it? (write no, | | | | | |
| new, or revised) | | | | | |
| What do the data show | All of our students are |
| about student learning or | meeting expectations with |
| success relative to the | respect to OSU and Program |
| outcomes you are reporting | learning outcomes. |
| on this year? | | | | | |
| Describe any course-level changes related to this | | | | | |
| outcome that will result | | | | | |
| /have resulted from | | | | | |
| assessment activities in this | | | | | |
| reporting year. Include | | | | | |
| timelines. | | | | | |
| | In this academic year our |
| | graduate faculty developed |
| Describe any | and adopted an assessment |
| program/degree level (e.g. | rubric to be used at prelim |
| curricular, outcomes, goals, | exams and final defenses to |
| objectives) changes related | more clearly document the |
| to this outcome that have | degree to which a student |
| resulted/will result from GLO | meets expectations for our |
| assessment activities in this | learning outcomes. This | learning outcomes. This | learning outcomes. This | learning outcomes. This | learning outcomes. This |
| reporting year and/or from | rubric will begin to be |
| other impetuses (e.g. | implemented next year and |
| feedback from accreditors). | will allow us to understand if |
| | some students stuggle with |
| | particular learning outcomes. |
| How did your program reflect | Reflection is carried out by |
| on the data you are reporting | the Grad Program director. |
| and who was involved? Were | The report is reviewed by the |
| there any challenges or | department head prior to |
| concerns? How are the | submission and shared with |
| results of your assessment | faculty at the next available |
| efforts related to strategic | department meeting. |

| planning and overall program | | | |
|------------------------------|--|--|--|
| review? | | | |

| FES Doctoral Program An | nual Reporting - Assessment and Reflection on Gradua |
|-------------------------------|--|
| List the university and | |
| program level graduate | Program level |
| learning outcomes (GLO). | Teaching (PhD only) |
| Is this GLO new or revised | |
| since the last year you | |
| reported on it? (write no, | NO |
| new, or revised) | |
| What do the data show | All of our students are meeting expectations with respect to |
| about student learning or | OSU and Program learning outcomes. |
| success relative to the | |
| outcomes you are reporting | |
| on this year? | |
| Describe any course-level | |
| changes related to this | |
| outcome that will result | |
| /have resulted from | |
| assessment activities in this | |
| reporting year. Include | |
| timelines. | |
| Describe any | In this academic year our graduate faculty developed and |
| program/degree level (e.g. | adopted an assessment rubric to be used at prelim exams and |
| curricular, outcomes, goals, | final defenses to more clearly document the degree to which |
| objectives) changes related | a student meets expectations for our learning outcomes. This |
| to this outcome that have | rubric will begin to be implemented next year and will allow |
| resulted/will result from GLO | us to understand if some students stuggle with particular |
| assessment activities in this | learning outcomes. |
| reporting year and/or from | |
| other impetuses (e.g. | |
| feedback from accreditors). | |
| How did your program reflect | Reflection is carried out by the Grad Program director. The |
| on the data you are reporting | report is reviewed by the department head prior to |
| and who was involved? Were | submission and shared with faculty at the next available |
| there any challenges or | department meeting. |
| concerns? How are the | |
| results of your assessment | |
| efforts related to strategic | |
| planning and overall program | |
| review? | |
| Plans | |

assessment plans for the

upcoming year.

Attachments- Please share any relevant attachments related to the items/results you are reporting in this report.

| Template -Doctoral Program Assessment Plan (1/3) | | | | | | |
|--|---|---|--|--|--|--|
| Process | Process | | | | | |
| How does your unit reflect on t | How does your unit reflect on the assessment data gathered and who is involved? How do the results of your assessment efforts relate to strategic planning and overall program review? | | | | | |
| Graduate Program director rev | iews data and writes report | for Graduate School. Report i | is shared with department head before | ore submission and shared with grad | duate faculty. | |
| What data are archived? Where | e, how and for what duratio | n? | | | | |
| Student assessment forms and | competency plans are main | tained in FES department off | ice according to departmental proto | col. | | |
| Program Outcomes, Meas | sures and Benchmarks | or Milestones | | | | |
| List the university and program level graduate learning outcomes (GLO). | ogram level graduate Conduct research or produce some other Demonstrate mastery of subject material subject material conduct scholarly or professional activities in an Demonstrate mastery of professional activities in an Disciplinary knowledge Transdisciplinary knowledge | | | | | |
| What year will you report on this outcome? (Every university GLO must be assessed annually and others at least once every five years.) | annually | annually | annually | annually | annually | |
| List the measures/methods /instruments to be used to assess the outcome. Identify measures, methods, and/or instruments as being direct (D) or indirect (I). (At least one of these must be direct measures.) | Preliminary exam and final defense oral exam | Preliminary exam and final defense oral exam | Oral exam and student's plan for achieving competency in this area | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | |
| What benchmarks/milestones will you use to determine if the outcome has been satisfactorily met by the students?z | Successful final defense | Successful final defense | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are | |

| | | | | expected to participate in assessment. | expected to participate in assessment. |
|--------------------------------|-----------------------------|-------------------------------|--------------------------------------|--|--|
| * Examples include courses, v | vorkshops, program of study | , internship/externship, rese | arch proposal, presentations of rese | earch or project results, project or f | thesis defense, final report or |
| thesis. This is not an exhaust | ve list of possibilities. | | | | |

* Programs especially with options will likely have specific learning outcomes (competencies, goals, etc.). State those and how they are being assessed.

| Template -Doctoral Program Assessment Plan (2/3) | | | | | |
|--|--|--|--|--|--|
| Program Outcomes, Mea | Program Outcomes, Measures and Benchmarks or Milestones | | | | |
| List the university and program level graduate learning outcomes (GLO). | Program level Communication skills | Program level Critical thinking skills | Program level Research skills | Program level Ethics skills | Program level Policy skills |
| What year will you report on this outcome? (Every university GLO must be assessed annually and others at least once every five years.) | annually | annually | annually | annually | annually |
| List the measures/methods /instruments to be used to assess the outcome. Identify measures, methods, and/or instruments as being direct (D) or indirect (I). (At least one of these must be direct measures.) | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. |
| What benchmarks/milestones will you use to determine if the outcome has been satisfactorily met by the students?z | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. | Students are required to provide each member of their committee with a signed copy of their competency plan prior to their final defense exam. Students will be expected to demonstrate actions as described by their competency plan. All members of a student's committee are expected to participate in assessment. |

* Examples include courses, workshops, program of study, internship/externship, research proposal, presentations of research or project results, project or thesis defense, final report or thesis. This is not an exhaustive list of possibilities.

* Programs especially with options will likely have specific learning outcomes (competencies, goals, etc.). State those and how they are being assessed.

| Program Outcomes, Meas | sures and Benchmarks or M |
|--|--|
| List the university and program level graduate learning outcomes (GLO). | Program level Teaching (PhD only) |
| What year will you report on this outcome? (Every university GLO must be assessed annually and others at least once every five years.) | annually |
| List the measures/methods /instruments to be used to assess the outcome. Identify measures, methods, and/or instruments as being direct (D) or indirect (I). (At least one of these must be direct measures.) | Assessment is made by committee members at prelim exam (PhD only) and oral final exam. Assessments are made on the basis of the Competency plan written by the student and pre-approved by the student's committee . Individual student assessments are combined over all graduates during an academic year to provide the program assessment for that year. |
| Vhat enchmarks/milestones will ou use to determine if the utcome has been atisfactorily met by the tudents?z | |

* Examples include courses, workshops, program of study, internsh thesis. This is not an exhaustive list of possibilities. * Programs especially with options will likely have specific learning outcomes (competencies, goals, etc.). State those and how they are being assessed.

AY2013: M.F. in Forest Ecosystems and Society

Forest Ecosystems and Society

Annual Graduate Assessment Report Form

DUE November 15, 2013

Directions: Please complete this report for each graduate program (PhD, MS, MA, etc.) with distinct learning outcomes in your unit. Be concise, but provide as much information as needed to give a snapshot of your assessment plan/process. The boxes will expand to accept more text. If you have this information in another format that articulates the following, please feel free to attach that document and refer to it as appropriate in the boxes below. If you have any questions, please contact Gita at 7-2180.

1. Program Information:

| Program | Forest Ecosystems and Society MF degree program |
|-------------------|---|
| Department/School | Forest Ecosystems and Society |
| College | Forestry |
| Timeframe | Report covers activities from AY2013 |
| Report Submitted | Lisa Ganio |
| by | |

2. Program Outcomes

Provide the Student Learning Outcomes for your graduate program.

As a result of successfully completing the requirements toward the MF, students shall:

- (a) produce and defend an original significant contribution to knowledge;
 The student will present and defend in an oral examination a paper involving the synthesis of scientific material and the communication of technical information on an approved topic within the student's area of emphasis.
- (b) demonstrate mastery of subject material; Students in the MF program must maintain a 3.00 GPA on all required coursework. Any term that GPA falls below this average, the student will meet with the major advisor and Graduate Program Director to develop an educational plan for addressing difficulties.

Following University requirements the final exam will evaluate mastery of subject material.

(c) and be able to conduct scholarly activities in an ethical manner.
 This will be accomplished through participation and training in research methods courses, professional development seminars, and course work.

3. Measurement- Provide a detailed narrative or schematic to articulate how the outcomes will be measured during the 2011 cycle and beyond for all outcomes.

a) Describe the methods you have used to assess each outcome.

Outcome (a) is assessed at the final oral exam by the student's committee members and the GCR. Success rates for the defenses will be collected by the Graduate Program Director.

Outcome (b) is part of every unit's requirements for students and is assessed by course work grades. GPA's and success rates for the final M.S. exams will be collected by the FES Graduate Program Director.

Outcome (c) is assessed by the student's committee during the final exam and reported to the FES Grad Program director on the departmental competency form. We will compute the percentage of successful defenses in which the student demonstrated competency in the responsible conduct of research

b) Describe any measurement tools used (performance criteria, rubrics). The final exam will follow standard University guidelines.

(a) Success rate for defenses will be computed for the entire MF program as the number of successful defenses divided by the number of attempts at a defense.

(b) GPA's will be reported as the average GPA of all enrolled MF students at the end of the period of the assessment. The GPA for each student will be computed as the GPA for all courses taken as a degree-seeking graduate students.

(c) All FES graduate students are required to submit a written plan for achieving competency in a number of integrative areas (see http://fes.forestry.oregonstate.edu/fes-graduate-student-competencies) The plan must be signed off by the major professor and the graduate program advisor prior to the defense. This written plan and assessment of the student by the major professor at the defense will be used.

4. Results, Conclusions, and Decisions-Describe the results, conclusions, or discoveries made during the measurement activities listed above by responding to the following:

a) Present a summary of the outcome data collected during the reporting cycle

IMPORTANT NOTE: The Forest Ecosystems and Society Degree programs began accepting graduate students in the Fall term of the 2012 (Sept. 2011).

Learning Outcome Results for FES MS Program for Sept 2011-Aug 2012 (a) There are 2 MF students in our program this year. Neither student attempted to defend. (b) The average GPA of 2 currently enrolled MF students was 3.58 (min=3.45, max=3.70). (c) No defenses were attempted this year

b) Include any additional information needed to provide appropriate context including unintended outcomes, measurement difficulties that may have led to ambiguous results, etc.

c) What conclusions have you drawn from your assessment data?

- 1. Procedures to collect assessment data at the program (department staff) level need to be documented and formalized and carried out as routine. At this stage they are still not part of a quarterly routine of data collection about student progress.
- 2. Major professors need to report back to the departmental office on the outcome of prelim exams and defenses. Some minimum level of quantification of the outcome could be developed that might be more helpful than pass/no pass.

d) Have you made any decisions that will be used in your planning process the next cycle? We plan to develop and implement a rubric to quantify the degree to which our graduates failed, met or exceeded expectations for our graduate learning outcomes. The rubric will be used at the final defense, scored by the major professor with input from the student's graduate committee.

5. Other activities that have informed decision making:

Please report on any other activities that you feel fall under assessment that were not captured above. This may include general satisfaction surveys, employer input, or other initiatives that contribute to graduate student learning or graduate program improvement.

AY2013: M.S. in Forest Ecosystems and Society

Forest Ecosystem and Society

Annual Graduate Assessment Report Form

DUE Nov. 15, 2013

Directions: Please complete this report for each graduate program (PhD, MS, MA, etc.) with distinct learning outcomes in your unit. Be concise, but provide as much information as needed to give a snapshot of your assessment plan/process. The boxes will expand to accept more text. If you have this information in another format that articulates the following, please feel free to attach that document and refer to it as appropriate in the boxes below.

1. Program Information:

| Program | Forest Ecosystems and Society MS degree program |
|-------------------|---|
| Department/School | Forest Ecosystems and Society |
| College | Forestry |
| Timeframe | Report covers activities AY2013 |
| Report Submitted | Lisa Ganio |
| by | |

2. Program Outcomes

Provide the Student Learning Outcomes for your graduate program.

Description of Learning Outcomes:
As a result of successfully completing the requirements toward the MS., students shall:

(d) produce and defend an original significant contribution to knowledge;
Following University requirements, upon completion of the research and writing, the thesis is examined along with an oral defense so that faculty can assess the qualifications of the student as an independent scholar.

(e) demonstrate mastery of subject material; Students in the MS program must maintain a 3.00 GPA on all required coursework. Any term that GPA falls below this average, the student will meet with the major advisor and FES Graduate Program Director to develop an educational plan for addressing difficulties.
Following University requirements the final exam will evaluate mastery of subject material.
(f) and be able to conduct scholarly activities in an ethical manner. This will be accomplished through participation and training in research methods courses, professional development seminars, and course work.

6. Measurement- Provide a detailed narrative or schematic to articulate how the outcomes will be measured during the 2011 cycle and beyond for all outcomes.

a) Describe the methods you have used to assess each outcome.

Outcome (a) is assessed at the final oral exam by the student's committee members and the GCR. Success rates for the dissertation defenses will be collected by the Graduate Program Director.

Outcome (b) is part of every unit's requirements for students and is assessed by course work grades. GPA's and success rates for the final M.S. exams will be collected by the FES Graduate Program Director.

Outcome (c) is assessed by the student's committee during the final exam and reported to the FES Grad Program director on the departmental form. We will compute the percentage of successful defenses in which the student demonstrated competency in the responsible conduct of research

b) Describe any measurement tools used (performance criteria, rubrics).

The final exam will follow standard University guidelines.

(a) Success rate for defenses will be computed for the entire MS program as the number of successful defenses divided by the number of attempts at a defense.

(b) GPA's will be reported as the average GPA of all enrolled MS students at the end of the period of the assessment. The GPA for each student will be computed as the GPA for all courses taken as a degree-seeking graduate students.

(c) All FES graduate students are required to submit a written plan for achieving competency in a number of integrative areas (see http://fes.forestry.oregonstate.edu/fes-graduate-student-competencies) The plan must be signed off by the major professor and the graduate program advisor prior to the defense. This written plan and assessment of the student by the major professor at the defense will be used.

7. Results, Conclusions, and Decisions-Describe the results, conclusions, or discoveries made during the measurement activities listed above by responding to the following:

a) Present a summary of the outcome data collected during the reporting cycle

IMPORTANT NOTE: The Forest Ecosystems and Society Degree programs began accepting graduate students in the Fall term of AY2012 (Sept. 2011).

Learning Outcome Results for FES MS Program for AY2013
(a) There were 23 MS students in our program this year and 5 MS students attempted to defend. 100% of students attempting the defense were successful.
(b) The average GPA of 22 MS students was 3.88 (min=3.62 max=4.0)
(c) All 5 graduating students met expectations for the responsible conduct of research.

b) Include any additional information needed to provide appropriate context including unintended outcomes, measurement difficulties that may have led to ambiguous results, etc.

Applicants to the program are generally enthusiastic to learn about the interdisciplinary nature of it and identify the interdisciplinary aspect as the primary reason they applied.

Errors in OSU database have been identified and corrected in our assessment.

c) What conclusions have you drawn from your assessment data?

- 3. Procedures to collect assessment data at the program (department staff) level need to be documented and formalized and carried out as routine. At this stage they are still not part of a quarterly routine of data collection about student progress.
- 4. Major professors need to report back to the departmental office on the outcome of prelim exams and defenses. Some minimum level of quantification of the outcome could be developed that might be more helpful than pass/no pass.

d) Have you made any decisions that will be used in your planning process the next cycle?

We plan to develop and implement a rubric to quantify the degree to which our graduates failed, met or exceeded expectations for our graduate learning outcomes. The rubric will be used at the final defense, scored by the major professor with input from the student's graduate committee.

8. Other activities that have informed decision making:

Please report on any other activities that you feel fall under assessment that were not captured above. This may include general satisfaction surveys, employer input, or other initiatives that contribute to graduate student learning or graduate program improvement.

AY2013: Ph.D. in Forest Ecosystems and Society

Forest Ecosystem and Society

Annual Graduate Assessment Report Form

DUE September 15, 2013

Directions: Please complete this report for each graduate program (PhD, MS, MA, etc.) with distinct learning outcomes in your unit. Be concise, but provide as much information as needed to give a snapshot of your assessment plan/process. The boxes will expand to accept more text. If you have this information in another format that articulates the following, please feel free to attach that document and refer to it as appropriate in the boxes below. If you have any questions, please contact Gita at 7-2180.

1. Program Information:

| Program | Forest Ecosystems and Society Ph.D degree program |
|-------------------|---|
| Department/School | Forest Ecosystems and Society |
| College | Forestry |
| Timeframe | Report covers activities from AY2013 |
| Report Submitted | Lisa Ganio |
| by | |

2. Program Outcomes

Provide the Student Learning Outcomes for your graduate program.

As a result of successfully completing the requirements toward the Ph.D., students shall:

- (g) produce and defend an original significant contribution to knowledge;
 Following University requirements, upon completion of the research and writing, the dissertation is examined along with an oral defense so that faculty can assess the qualifications of the student as an independent scholar.
- (h) demonstrate mastery of subject material; Students in the PhD program must maintain a 3.25 GPA on all required coursework. Any term that GPA falls below this average, the student will meet with the major advisor and FES Graduate Program Director to develop an educational plan for addressing difficulties.

Following University requirements, upon completion of coursework there will be a preliminary examination of the student. In addition to the oral exam required by University guidelines, the preliminary exam will begin with written questions prepared by the student's committee followed by the oral exam.

 (i) be able to conduct scholarly activities in an ethical manner.
 This will be accomplished through participation and training in research methods courses, professional development seminars, and course work.

9. Measurement- Provide a detailed narrative or schematic to articulate how the outcomes will be measured during the 2011 cycle and beyond for all outcomes.

a) Describe the methods you have used to assess each outcome.

Outcome (a) is already part of the assessment performed at the final oral exam and the GCR is specifically required to raise this metric. Success rates for the dissertation defenses will be collected by the Graduate Program Director.

Outcome (b) is part of every unit's requirements for students and is assessed by course work grades and preliminary examinations. GPA's and success rates for the preliminary exams will be collected by the Graduate Program Director.

Outcome (c) is assessed by the student's committee during the preliminary exam and reported to the FES Grad Program director on a departmental form.

b) Describe any measurement tools used (performance criteria, rubrics). Preliminary exam and dissertation defenses follow standard University guidelines.

(a) Success rate for defenses will be computed for the entire Ph.D program as the number of successful defenses divided by the number of attempts at a defense.

(b) GPA's will be reported as the average GPA of all enrolled Ph.D students at the end of the period of the assessment. The GPA for each student will be computed as the GPA for all courses taken as a degree-seeking graduate students.

(c) All FES graduate students are required to submit a written plan for achieving competency in a number of integrative areas (see http://fes.forestry.oregonstate.edu/fes-graduate-student-competencies) The plan must be signed off by the major professor and the graduate program advisor prior to the defense. This written plan and assessment of the student by the major professor at the defense will be used.

10. Results, Conclusions, and Decisions-Describe the results, conclusions, or discoveries made during the measurement activities listed above by responding to the following:

a) Present a summary of the outcome data collected during the reporting cycle

IMPORTANT NOTE: The Forest Ecosystems and Society Degree programs began accepting graduate students in the Fall term of the 2012 (Sept. 2011).

Learning Outcome Results for FES MS Program for Summer 2012-Spring 2013 (a) No Ph.D students defended this year. Note that the degree program has been in existence for 2 years.

(b) The average GPA of 11 Ph.D students was 3.86 (min=3.45, max=4.0).

(c) Since no Ph.D students have defended, we do have data on Learning Outcome (c) at this time.

 b) Include any additional information needed to provide appropriate context including unintended outcomes, measurement difficulties that may have led to ambiguous results, etc.
 (b)

c) What conclusions have you drawn from your assessment data?

- 5. Procedures to collect assessment data at the program (department staff) level need to be documented and formalized and carried out as routine. At this stage they are still not part of a quarterly routine of data collection about student progress.
- 6. Major professors need to report back to the departmental office on the outcome of prelim exams and defenses. Some minimum level of quantification of the outcome could be developed that might be more helpful than pass/no pass.

d) Have you made any decisions that will be used in your planning process the next cycle?

We plan to develop and implement a rubric to quantify the degree to which our graduates failed, met or exceeded expectations for our graduate learning outcomes. The rubric will be used at the final defense, scored by the major professor with input from the student's graduate committee.

11. Other activities that have informed decision making:

Please report on any other activities that you feel fall under assessment that were not captured above. This may include general satisfaction surveys, employer input, or other initiatives that contribute to graduate student learning or graduate program improvement.

AY2012: M.F. in Forest Ecosystems and Society

Annual Graduate Assessment Report Form

DUE September 15, 2012 to Gita N. Ramaswamy, Director of Academic Programs, Assessment, and Accreditation

Directions: Please complete this report for each graduate program (PhD, MS, MA, etc.) with distinct learning outcomes in your unit. Be concise, but provide as much information as needed to give a snapshot of your assessment plan/process. The boxes will expand to accept more text. If you have this information in another format that articulates the following, please feel free to attach that document and refer to it as appropriate in the boxes below. If you have any questions, please contact Gita at 7-2180.

1. Program Information:

| Program | Forest Ecosystems and Society MF degree program |
|-------------------|---|
| Department/School | Forestry |
| College | |
| Timeframe | Report covers activities from 6/1/12 – 9/1/12 |
| Report Submitted | Lisa Ganio |
| by | |

2. Program Outcomes

| Provid | de the Student Learning Outcomes for your graduate program. |
|--------|---|
| | esult of successfully completing the requirements toward the MF, students shall: produce and defend an original significant contribution to knowledge; The student will present and defend in an oral examination a paper involving the synthesis of scientific material and the communication of technical information on an approved topic within the student's area of emphasis. |
| (k) | demonstrate mastery of subject material; Students in the MF program must maintain a 3.00 GPA on all required coursework. Any term that GPA falls below this average, the student will meet with the major advisor and Graduate Program Director to develop an educational plan for addressing difficulties. |
| | Following University requirements the final exam will evaluate mastery of subject material. |
| (I) | and be able to conduct scholarly activities in an ethical manner. This will be accomplished through participation and training in research methods courses, professional development seminars, and course work. |

12. Measurement- Provide a detailed narrative or schematic to articulate how the outcomes will be measured during the 2011 cycle and beyond for all outcomes.

a) Describe the methods you have used to assess each outcome.

Outcome (a) is assessed at the final oral exam by the student's committee members and the GCR. Success rates for the defenses will be collected by the Graduate Program Director.

Outcome (b) is part of every unit's requirements for students and is assessed by course work grades. GPA's and success rates for the final M.S. exams will be collected by the FES Graduate Program Director.

Outcome (c) is assessed by the student's committee during the final exam and reported to the FES Grad Program director on the departmental competency form. We will compute the percentage of successful defenses in which the student demonstrated competency in the responsible conduct of research

b) Describe any measurement tools used (performance criteria, rubrics). The final exam will follow standard University guidelines.

(a) Success rate for defenses will be computed for the entire MF program as the number of successful defenses divided by the number of attempts at a defense.

(b) GPA's will be reported as the average GPA of all enrolled MF students at the end of the period of the assessment. The GPA for each student will be computed as the GPA for all courses taken as a degree-seeking graduate students.

(c) All FES graduate students are required to submit a written plan for achieving competency in a number of integrative areas (see http://fes.forestry.oregonstate.edu/fes-graduate-studentcompetencies) The plan must be signed off by the major professor and the graduate program advisor prior to the defense. This written plan and assessment of the student by the major professor at the defense will be used.

13. Results, Conclusions, and Decisions-Describe the results, conclusions, or discoveries made during the measurement activities listed above by responding to the following:

a) Present a summary of the outcome data collected during the reporting cycle

IMPORTANT NOTE: The Forest Ecosystems and Society Degree programs began accepting graduate students in the Fall term of the 2012 (Sept. 2011). This report covers the following academic year. During this time only 2 MF students graduated. One of the students transferred into the MFdegree after completing coursework under the non-existent Forest Resources program.

Learning Outcome Results for FES MS Program for Sept 2011-Aug 2012 (a) 2 MF students successfully defended this year; 100% success rate

(b) The average GPA of 1 currently enrolled MF student was 3.12(c) One of 2 MF graduates documented training in the responsible conduct of research.

b) Include any additional information needed to provide appropriate context including unintended outcomes, measurement difficulties that may have led to ambiguous results, etc.

c) What conclusions have you drawn from your assessment data?

.

Databases at the program level are needed to track the appropriate statistics. Office staff need skills to do this.

Program level outcomes need a procedure for recording the relevant data for each student in the program. GPAs and graduation rates can be obtained from University databases but documentation of training in the responsible conduct of research is needed. Changes to the program of student form that have been done over the past year will help with this

d) Have you made any decisions that will be used in your planning process the next cycle?

14. Other activities that have informed decision making:

Please report on any other activities that you feel fall under assessment that were not captured above. This may include general satisfaction surveys, employer input, or other initiatives that contribute to graduate student learning or graduate program improvement.

AY2012: M.S. in Forest Ecosystems and Society

Annual Graduate Assessment Report Form

DUE September 15, 2012 to Gita N. Ramaswamy, Director of Academic Programs, Assessment, and Accreditation

Directions: Please complete this report for each graduate program (PhD, MS, MA, etc.) with distinct learning outcomes in your unit. Be concise, but provide as much information as needed to give a snapshot of your assessment plan/process. The boxes will expand to accept more text. If you have this information in another format that articulates the following, please feel free to attach that document and refer to it as appropriate in the boxes below. If you have any questions, please contact Gita at 7-2180.

1. Program Information:

| Program | Forest Ecosystems and Society MS degree program |
|------------------------|--|
| Department/School | Forest Ecosystems and Society |
| College | Forestry |
| Timeframe | Report covers activities from 9/1/2011 to 8/30/2012 the 2012 academic year |
| Report Submitted by | Lisa Ganio |

2. Program Outcomes

Provide the Student Learning Outcomes for your graduate program.

<u>Description of Learning Outcomes:</u>
As a result of successfully completing the requirements toward the MS., students shall:
(m) produce and defend an original significant contribution to knowledge;
Following University requirements, upon completion of the research and writing, the thesis is examined along with an oral defense so that faculty can assess the qualifications of the student as an independent scholar.
(n) demonstrate mastery of subject material;
Students in the MS program must maintain a 3.00 GPA on all required coursework. Any term that GPA falls below this average, the student will meet with the major advisor and FES Graduate Program Director to develop an educational plan for addressing difficulties.
Following University requirements the final exam will evaluate mastery of subject material.
(o) and be able to conduct scholarly activities in an ethical manner. This will be accomplished through participation and training in research methods courses, professional development seminars, and course work.

15. Measurement- Provide a detailed narrative or schematic to articulate how the outcomes will be measured during the 2011 cycle and beyond for all outcomes.

a) Describe the methods you have used to assess each outcome.

Outcome (a) is assessed at the final oral exam by the student's committee members and the GCR. Success rates for the dissertation defenses will be collected by the Graduate Program Director.

Outcome (b) is part of every unit's requirements for students and is assessed by course work grades. GPA's and success rates for the final M.S. exams will be collected by the FES Graduate Program Director.

Outcome (c) is assessed by the student's committee during the final exam and reported to the FES Grad Program director on the departmental competency form. We will compute the percentage of successful defenses in which the student demonstrated competency in the responsible conduct of research

b) Describe any measurement tools used (performance criteria, rubrics).

The final exam will follow standard University guidelines.

(a) Success rate for defenses will be computed for the entire MS program as the number of successful defenses divided by the number of attempts at a defense.

(b) GPA's will be reported as the average GPA of all enrolled MS students at the end of the period of the assessment. The GPA for each student will be computed as the GPA for all courses taken as a degree-seeking graduate students.

(c) All FES graduate students are required to submit a written plan for achieving competency in a number of integrative areas (see http://fes.forestry.oregonstate.edu/fes-graduate-student-competencies) The plan must be signed off by the major professor and the graduate program advisor prior to the defense. This written plan and assessment of the student by the major professor at the defense will be used.

16. Results, Conclusions, and Decisions-Describe the results, conclusions, or discoveries made during the measurement activities listed above by responding to the following:

a) Present a summary of the outcome data collected during the reporting cycle

IMPORTANT NOTE: The Forest Ecosystems and Society Degree programs began accepting graduate students in the Fall term of the 2012 (Sept. 2011). This report covers the following academic year. During this time, no M.S. and no Ph.D students graduated because there was not enough time to complete their program.

Learning Outcome Results for FES MS Program for Sept 2011-Aug 2012

(a) No MS students defended this year

(b) The average GPA of 9 MS student was 3.88

(c) Since no MS students have defended, we do have data on Learning Outcome (c) at this time.

b) Include any additional information needed to provide appropriate context including unintended outcomes, measurement difficulties that may have led to ambiguous results, etc.

An individual student's program can require course from multiple disciplines. Students may need to take background coursework, sometimes undergrad courses, to build appropriate knowledge in one of the disciplines. We may find it important to separate GPA for graduate level and undergraduate level courses.

c) What conclusions have you drawn from your assessment data?

Databases at the program level are needed to track the appropriate statistics. Office staff need skills to do this.

Program level outcomes need a procedure for recording the relevant data for each student in the program. GPAs and graduation rates can be obtained from University databases but documentation of training in the responsible conduct of research is needed. Changes to the program of student form that have been done over the past year will help with this

d) Have you made any decisions that will be used in your planning process the next cycle?

17. Other activities that have informed decision making:

Please report on any other activities that you feel fall under assessment that were not captured above. This may include general satisfaction surveys, employer input, or other initiatives that contribute to graduate student learning or graduate program improvement.

AY2012:Ph.D. in Forest Ecosystems and Society

GLO Assessment for Ph.D. students was not carried out in 2012 since we did not have any Ph.D. students in the program the first year.

Appendix V

Biennial FES Program Evaluation Report AY 2015-2016 to the Graduate School

Forest Ecosystems and Society Graduate Program Biennial Assessment Report for AY2015-2016 prepared April 2017

Contact Information: Lisa Ganio, College of Forestry Email Address <u>lisa.ganio@oregonstate.edu</u> Title FES Graduate Program Director

Table A: Briefly summarize and reflect on data trends in applications, admissions, and matriculan...

Characteristics of applying, admitted, and matriculated students (Table A and program data) Over the past 2 years we have included an "Admissions Committee" in our admissions process. The committee members review applicants and identify challenges to success (if they exist) for applicants that our professors are wishing to bring on. This process has been successful at alerting faculty to issues with potential students that they might not have noticed. This can range from a lack of preparatory coursework to lack of funding. The committee can also ask for more documentation from an applicant (such as a writing sample if that is not supplied) or for a funding plan from a potential advisor.

GRE scores of applied, admitted, and matriculated students

Consistent with past patterns, there is little difference in GRE scores of applied, admitted and matriculated students. Over the past 2 years we have become less reliant on GRE scores and have attempted to use multiple metrics (eg GRE scores, letters of recommendation, their statement) to draw a picture of the student as whole. We continue to require these scores since many faculty are used to using them but we typically don't make our decisions on the basis of these scores.

TOEFL scores of applied, admitted, and matriculated students

The Admissions Committee reviews TOEFL scores carefully and reviews the writing samples of international students. We believe that students for whom English is a second language will take additional mentoring and time to prepare their thesis and we want to be sure that the advisor has enough time and funding to support that. In cases where TOEFL scores have been low we have asked for an IDP to describe training for the student and measureable milestones for success (passing English language classes). We believe the TOEFL scores we see in our applicants are adequate.

Applied, admitted, and matriculated students by degree, gender, citizenship, and race/ethnicity

While we received only 13 applications the first year our program existed, we have received between 45 and 65 applications each year, approximately half of which are female and half are male indicating that the program is attacting enough students to keep it viable. About 10-15 of our total applications are from international applicants. The majority of our applicants are white. In the last two years we have had 19 applicants that are non-white. We continue to get about 40% of our applications for the PhD program and 60% for the MS program.

We have admitted between 15 and 25 students in each of the last 5 yearsr (~ 30% of our applicants for both MS and PhD). We have seen a decline in the number of male applicants in the last 2 years that we admit; in 2012 we admitted 14 males but in 2014 and 2015 we admitted only 3 and 2 respectively but we are not worried at this time. We have admitted 1-4 international students each year but only 5 students who identify as non-white.

In general, the patterns for matriculation are similar to our admitted students. We tend to lose 1-3 students each year between admission and matriculation due primarily to schools who can offer more

attractive funding packages. We don't expect this to change since we are attempting to recruit top notch students and they are, and will continue to be recruited by private schools which can offer more definite funding into the future (e.g. a commitment to 5-6 years of PhD funding).

Conclusions

Our representation of underrepresented minority groups is low. Recruitment into our program is done individually by professors who are seeking particular skills and abilities. While an aspirational goal is to increase our diversity, unless individual professors can recruit diversity candidates it will be difficult to achieve this goal. Some faculty are actively seeking support for diversity candidates through the university and the College at this time. But whether that leads to an increase or simply not a decrease in our recruitment of diversity remains to be seen.

Our past assessments identified a need to increase the number of qualified students. We feel we receive a reasonable number of applicants and our fairly selective in the ones we accept. The College has provided funds for recruitment visits and has provided some matching funds for Provost Award Fellows. This has helped make our funding packages more attractive. But the availability of grant funding to support students remains the single most important factor in our ability to bring on students. A recent assessment of our ability to increase enrollment showed that we do not anticipate being able to grow the program any larger without some additional large sources of tuition and research funding for students.

Table B: Briefly summarize and reflect on data trends in enrollment.

Potential for growth: Our enrollment has grown since the first year of the program but it is leveling off now. In March 2017 we assessed the capacity for a growth in enrollment in our department by calculating the average number of students per faculty member and by considering where we felt we could grow enrollment. We included faculty with regular teaching/research faculty appointments as 1.0 and used 0.5*number of faculty with admin, extension specialist, emeritus or instructor appointments = 23.5 Between the MNR and FES graduate programs we had a total of 87 students. If normal is 3 students per faculty member we would have 70 students. Therefore we felt that our faculty were fully committed. Since the majority of funding for our students comes from research grants, the decline in research dollars also suggested that it would not be possible to grow enrollment.

In general, the trends in characteristics of enrolled students are the same as those of matriculated students (see above for description). The primary concern is the lack of graduate students from under-represented groups.

Table C: Briefly summarize and reflect on data trends in financial support for students.

Funding for a student is developed and overseen by individual faculty members in our program. Faculty members have different tolerances for advising unfunded students and the program does not restrict a faculty member from bringing on an unfunded student. In the past year, based on departmental records, 9% of MS and 13% of PhD students (~ 6 total) did not have funding for tuition. In some cases, these students are employed and pay their tuition from their salary. Funding from scholarships from within our College totaled \$39K for MS students and ~\$113K for PhD students. However, our department head has suggested that College funding will decrease.

Reflection on the Grad School's data shows an increase in funding from other sources over the past 5 years (from \$20K to ~\$68K). Given the decline in research grant funds, we believe scholarship and other awards are helping fill in the financial gap for students. I note that students without funding tend

to be students who take leaves of absence or fail to enroll, or fail to make progress. Our admissions process has started to ask advisors for contingency funding plans, especially for students who come with their own funding for a fixed period of time (international students or those on special scholarships that pay tution), in case the student doesn't finish within the funded time.

Table D: Briefly summarize and reflect on data trends in course offerings for students.

Over the past 5 years, we have improved the number of course offerings. This is primarily the result of hiring of new faculty. We don't expect to see much more of an increase in the future since faculty member's teaching time is being directed more to undergraduate offerings. We continue to maintain about 5% of our courses as 400/500 courses.

Table E: Briefly summarize and reflect on data trends in faculty contributions to teaching.

Our faculty continue to teach courses across campus (~10 different course designators). From AY14 to AY15 there was a decline in SCH generation by faculty for our program. This appears to be due to a reduction in courses from FES, FOR and FW. In our college over the past 2 years we have had a number of retirements and a number of new hires. The teaching capacity of the new hires is being directed to undergraduate courses and the faculty have not taught graduate courses. This may be one source of the decline.

Note to Graduate School on the formatting of the excel spreadsheet: PLEASE line up the course identifiers so they can be compared across years. Leaving out rows causes me to spend HUGE amounts of time reformatting so I can line up the values.

Table G: Briefly summarize and reflect on data trends in graduate faculty characteristics.

Approximately one third of our 95 graduate faculty are courtesy faculty. 64% are male, 73% are white and 88% are domestic. Increasing the diversity of our faculty has been identified as important in the past and we have tried to address that. Hires in AY16 included 3 females and an international male. Most of our faculty advise MS and PhD students. We now require all graduate student committees to include at least one regular member of our FES department. We encourage our courtesy faculty to advise students but want to be sure that the committee has the most current information related to graduate student issues and resources.

Table H: Briefly summarize and reflect on data trends in Scholars Archive data.

As expected the number of theses is increasing as our program matures. We added 17 MS and 3 PhD theses in the last 2 years. Over the last 5 years we have had 26 MS theses and 4 PhD theses. We are expecting the number of PhD graduates and theses per year to increase in the future given that we have approximately 30 PhD student. The pattern in the number of downloads mirrors the number of theses. We are satisfied with the number of theses and the rate at which we produce them.

Table J: Briefly summarize and reflect on data trends in retention and degree completion.

We are satisfied with the number of degrees completed each year and, generally, with the amount of time to completion that is required. Our annual cohorts are composed of about 10 MS and 4-6 PhD

students which we see as an adequate student load.

We have 'lost' a few students over the past 5 years for a variety of reasons. Two students were dismissed due to lack of performance in their studies suggesting we need to scrutinize applications carefully. We currently have 2 self-funded PhD students with full-time jobs who are in violation of continuous enrollment suggesting that should carefully consider taking on self-funded PhD students since they are not always able to balance holding down a full time job and progressing toward the degree. We have also had a number of students who had personality conflicts with their initial advisor but we managed to find alternative advisors for them. This last issue is challenging since the original advisor usually provides the grant funding to support the student's work. Changing advisors usually means stopping work in one research area and starting in another. This has been very inefficient (takes up lots of people's time) and we have since asked the Admissions Committee to more carefully scrutinize applications so that they can raise potential issues with applicants that the recruiting advisor may not see (or may not wish to identify).

Block 1 General Conclusions and Action Plan for the Next Academic Year Briefly discuss the areas...

In general we feel we are on the right track as a successful graduate program. Issues with retention over the last 2 years have prompted us to more actively engage with our Admissions Committee and solicit their recommendation and advice. In no instance does this committee deny admission to an applicant. But they make recommendations to the program director for additional information from either the student or the potential advisor. Examples of this include:

- asking for a new writing sample from an international candidate
- asking the potential advisor to develop a training plan to improve the applicant's language skills
- asking the potential advisor to provide a plan for satisfactory progress for a student who failed out of another program.
- suggesting a student be more successful in an MF degree program rather than an MS

Simply asking for this information from the potential advisor raises awareness among faculty of these issues and attempts to find a way to help the student move through our program as easily as possible with enough support (financial or academic).

Recruitment of diverse applicants remains an issue for our program since faculty individually recruit students. Forestry is not an area of study that is well-known or population among students from under represented backgrounds. Finding ways for our individual faculty members to interact with these students so that they can recruit them is difficult. We continue to emphasize the need for this and to advertise scholarships and awards available for such students.

Appendix VI

Summary of FES Graduate Exit Interviews 2014-2017

Summary of Exit Interviews with FES Graduate Students, Summer 2014 to Summer 2017

Troy Hall, FES Department Head

Background:

The FES Department Head meets with all graduating MS and PhD students from FES after their defense. The exit interview covers a variety of topics, including the student's goals, interactions with major professor and committee, coursework, use of facilities, and overall experience. The interview guide was developed prior to 2014, and most of the interviews discussed in this report used that version (see Appendix). (The guide was updated in spring 2017 to include additional specific topics.) The interview guide includes numerical rating scales for questions; however, after conducting several interviews, it was clear that students were uncomfortable giving quantitative ratings, and the most valuable insights came from the specific comments they made. Therefore, use of the rating scales was discontinued (except for the final, overall rating of the program), and those data are not reported here.

This report summarizes students' responses in an objective way, capturing all of the primary themes; where possible, quantitative data are provided about the number of students who gave specific types of responses. Students were assured that their responses are confidential; hence, specific details that might reveal identities are not included here. No effort is made to evaluate whether the input from students is good or bad; the graduate program will need to determine whether there are issues that are in need of attention.

Summary of results

Description of students

- Interviewed 10 PhD and 26 MS students between June 2014 and August, 2017
- Major professor: 11 T/TT faculty in FES; 11 courtesy faculty/agency scientists; 4 T/TT faculty from other departments

Reasons for choosing FES: Students typically offered multiple reasons for choosing the FES program. While nearly all students said they had at least partial funding arranged before enrolling, 13 specifically mentioned that they came to work on a particular funded research project that aligned with their interests. Thirteen students said they sought out a particular major professor, and being able to work with that individual was a consideration in their choice. Thirteen students said that one reason they chose FES was the reputation of the program or university. Seven students had either met a faculty member previously or received a recommendation to investigate FES from a faculty member or supervisor at another institution. Six students had earned a previous degree at OSU (but not in FES) and stayed to pursue a MS or PhD.

A few students mentioned aspects of the degree program that factored into their decisions: five mentioned the interdisciplinary nature of FES, and three mentioned the flexibility of the program and their ability to pursue their own interests. Geographical considerations were important for some

students: nine specifically mentioned a desire to be in the PNW and four said that being from Oregon facilitated their choice (either for in-state tuition or to be near families).

Post-graduation plans: Students were asked about their immediate post-graduation plans. Several of them were in the process of applying for positions, so many had not yet finalized their plans. Four students were following spouses to locations outside Corvallis, so they were uncertain about what positions they might find. Ten MS students and two PhD students had not yet secured a position at the time of their interview.

Among students who had specific plans, four MS students had enrolled in PhD programs, and four PhD students had secured post doc positions. Four MS students had seasonal jobs in natural resource agencies, one had accepted a research associate position in a university lab, two were returning to home countries to work for government agencies, two had accepted permanent jobs with NGOs, one was self-employed (in forestry), one was taking time to start a family, and one worked in retail. PhD graduates with jobs were working in consulting, as a Fellow with a national NGO, for the USFS, and as a researcher for an agency in his home country.

Quality of advising from major professor: Of the students who gave qualitative ratings of the advice they received from and their relationship with their major professor, 11 used superlatives (e.g., "the best," "excellent," "couldn't have been better"), and 12 indicated that the relationship/advice was "very good." Five students said the advice was overall good, but noted specific limitations or areas that were sub-par. Five students provided responses that suggested they felt the advice they got was poor or inadequate.

Several common themes emerged regarding positive and helpful aspects of advising. Nearly all students said their major professor was available, approachable, attentive, and/or personally supportive. Five students volunteered that they appreciated being given independence by their major professors in their studies and research.

One notable theme related to advising problems centered around major professors who are either courtesy faculty in FES or members of other OSU departments. Specifically, these advisors were sometimes seen as not very involved in the department and, more commonly, lacking awareness of graduate school or program guidelines (eight students specifically mentioned this). However, most students who were advised by someone other than a FES faculty member said that their other committee members were able to provide adequate guidance on program requirements. Also related to courtesy faculty, three students felt that their major professors had unrealistic expectations for the amount and level of research work that can be expected of graduate students. Three students experienced inconsistent and conflicting guidance from different members of their committees related to their research. Another pointed out that it was not clear what the student should be able to expect in terms of the major professor's active participation in the student's research.

Four students stated that they did not receive prompt feedback from their advisor on written materials. Two students felt that they did not receive adequate career mentoring (particularly for non-academic positions), and one felt that the advisor did not provide desired mentoring. One student felt it was problematic that the advisor did not ever go into the field during the student's research. Only one student made a negative statement about funding when asked about their interactions with major professors. This student felt he had been misled by his major professor about the continuity of support he could expect.

Other than coursework, did your major professor provide opportunities for professional development? All but one student answered this question in the affirmative. Thirty-one of the students interviewed had presented their work at a regional, national, or international conference (other than WFGRS), and many students had presented multiple times. Frequently, costs for travel were covered by a grant or the major professor, although the availability of travel grants was critical for several students to be able to attend conferences. Ten students had participated in trainings, workshops, or short-courses (mostly away from Corvallis). Only one student explicitly mentioned not being able to attend a training due to limited financial resources. Eight students mentioned that their major professor proactively provided contacts and networking opportunities, and four students had formal internships off-campus.

Role of the committee. Students had quite diverse experiences with their committees. Not surprisingly, most reported that certain committee members were more involved with their research than others. Seven students said that none of their committee members other than their major professor were involved in the research; in these cases committee members mostly served in an evaluative role. Regardless, all but three students had overall positive comments about their committees. The three who reported negative experiences described (1) getting conflicting input from committee members that was difficult to reconcile; (2) having few interactions with the committee prior to PhD prelims, which went poorly; and (3) interpersonal friction on the committee.

Quality of facilities: Students either had offices in Peavy or Richardson (27 students), or were housed in the FSL (5 students). A couple students worked exclusively in labs and a couple never used an office. Generally, comments about student offices were moderately positive ("adequate," "fine," "good"), although 15 students specifically pointed out that not having windows in RH offices is depressing and undesirable. A few students thought grad office space was excellent, particularly in comparison to offices for students in other programs.

Students were asked about the computing resources and computing support. Several students used computers/software provided by their major professors. Most students used the grad computing lab and felt that it was quite adequate and had the software they needed. One particular problem was noted by social science students – they mentioned that the software they need to analyze textual data (NVivo) is only available on two computers. A few students mentioned taking workshops provided by the IT group, and all of their comments about the workshops were positive. Four students specifically mentioned that it was nice not to have to pay for printing.

Thirty-five students commented on the Help Desk, and 34 had only positive things to say. (The one student who said the support was "so-so" mentioned challenges with customizing specific software he needed for his research.) This positive sentiment is the strongest consensus in all the interviews, so it is worth providing a sampling of comments about the Help Desk:

- Super helpful; phenomenal; awesome
- Saved my life a million times
- Never treated me like an idiot
- So friendly; always available

• Can't say enough good things – 100% helpful

Only nine students reported using labs other than computing labs in RH for their research. Six students had access to labs at the FSL and five used labs across campus. Therefore, relatively few comments were provided about CoF laboratory facilities. Students remarked that the Co-lab and greenhouses were excellent, and that the dendrology lab is the best in the PNW. However, one student felt that the microscopy lab is not well maintained and access is too lax, so that instruments are damaged.

Statistical Advising (in CoF): Students were asked if they used the statistical advising services in the college. Social science students generally did not; those conducting qualitative research did not find utility in statistical consulting. However, 26 students mentioned consulting with Ariel (or, sometimes, Lisa). The level of interaction varied considerably from one or two meetings to almost weekly meetings when doing analysis. Nearly all comments from these 26 students were positive. They said things like the service was "fantastic" or "above and beyond." They described Ariel as "very practical, knowledgeable." They said she helped them understand analyses, not just conduct them. One student even said that Ariel was "instrumental to my success." Three students reported negative experiences with statistical consulting – these students appeared to be somewhat more challenged with statistics, and they reported being afraid to ask questions, feeling expectations for their knowledge were too high, negative interpersonal interactions, or receiving advice that was contrary to what committee members were giving.

Departmental office staff: All students commented on their interactions with office staff in FES. Students who graduated in 2014 and 2015 were more likely to comment on the various changes happening (new graduate coordinator, new program requirements, etc.), and a couple of them felt that communication wasn't great at first (although it got better). All students graduating later had only positive things to say about FES office staff, particularly the graduate coordinators. Students found the office staff to be "fantastic," "extremely helpful," "super friendly," "very responsive," "knowledgeable," and "courteous." One student said the staff are "360 degrees awesome," while another said they are "spectacular in every way." The FES graduate coordinator was singled out as deserving "a million gold stars," being a "superstar," and the "go-to person" who "never gets mad at you."

Students had generally positive interactions with the FOBC and no one reported having any trouble with travel claims.

Quality of the workplace environment in the department (e.g., openness to diverse views, comfortable place to work, ease of communication). Students had rather varied responses to this question. Several students who were not frequently on campus seemed to have little direct experience and did not have strong opinions. Several students mentioned that they felt the department tends to be a bit siloed and lacking in opportunities for social interaction. (For example, one student said he could only name or recognize 10% of faculty in the department.) Eight students said the environment was "great" or "fantastic," while 17 students were generally positive ("friendly and open," "very supportive," "never been uncomfortable," "never had any real issues," "lots of different perspectives offered in class").

Seven students offered negative comments about the climate of the department. Some of these comments referred to feeling "out of place as a social scientist in a physical science world – felt pushed to the outside," human dimensions students not "feeling well supported," and experiencing "value judgments about what is 'worthwhile' research" – specifically that qualitative research was not

considered science. One student reported overhearing offensive talk among undergraduates in a computer lab, and another said that "men make dumb comments a lot." A few other students pointed out the relative lack of diversity within the department.

Quality of classroom instruction in FES. Students generally took most of their coursework outside the FES department, so most of them had limited perspectives on the quality of instruction from FES faculty. Nevertheless, their comments were generally positive, and few FES classes were singled out as unsatisfactory. As might be expected, classes that stood out as particularly good tended to vary from student to student, given the diverse nature of their interests and research. Sixteen students commented that FES 520 was valuable, both for cohort building and for helping them think critically about science. However, four social science students felt devalued or that their approaches to science received criticism. Eight students mentioned FES 521 as a useful class, although a couple students noted that the instructor uses a different format for proposals than their major professors, which caused some problems for them. Students who did not yet have firm research plans, or who had already collected data, found FES 520 and FES 521 to be less useful. Classes that were mentioned positively by at least three students were the following:

- FES 524 (8 students). Most students who took this class thought it was extremely helpful. However, a few noted that it is a heavy load and two intentionally took no other classes the quarter they took it.
- Huntington's policy classes (7 students; these classes received high acclaim. One student called the instruction "absolutely stunning")
- Community ecology (6 students)
- Harmon's forest carbon class (5 students)
- FES 523 (5 students). Students considered this class essential and thought the instruction was outstanding.
- McCune's class (4 students). One student said this was one of the best classes ever taken.
- Shaw's forest health field course (4 students)
- Hall's manuscript writing class (4 students)
- Ries' urban forestry classes (3 students)

When asked if there were courses they wished they could have taken but that were not available, most students said no. Several students noted that desired courses were in the catalog, but they were not able to fit them into their schedule. Some expressed regrets for not taking courses that would have proven useful. Students made a few suggestions for courses:

- Better training in writing and grantsmanship
- A graduate community ecology, field-based course
- A general introduction to PNW forestry for students from other countries or those without a forestry background (5 students mentioned this)
- More GIS
- A required seminar (4 students)

Graduate students had a few negative comments about their coursework. One issue was course availability; students noted that it is problematic when low enrollment classes are canceled, and it was difficult to know when courses listed in the catalog would actually be offered. Another issue related to

slash courses. One student said these have "an undergraduate feel" and another called them "soupedup undergrad classes." Finally, inconsistent workload expectations across courses with the same number of credits was problematic for a few students.

Overall evaluation of the FES graduate program: Students were asked to rate the overall quality of the FES program on a scale of 1 (poor) to 5 (superior):

- 5.0 11 students
- 4.5 3 students
- 4.0 15 students
- 3.5 1 student
- 3.0 2 students

Reasons for positive evaluations included the quality of the faculty and research program; the focus on student success and level of support; training in the conduct of science and disciplinary knowledge; and the collegial atmosphere and friends made. In three cases, negative comments pertained to students wanting to pursue project-based degrees, but being guided to do research instead. Other negative comments centered on lack of early guidance on research (leading to longer programs) and conflict with major professors.

Other comments: In addition to the structured questions above, a few points emerged from the interviews that deserve comment:

- Students who interacted with the program director were very appreciative of her availability, willingness to help, and level of compassion for students.
- Several students who were on funded GRAs expressed that they wished they had the opportunity to teach, but were not permitted to do so.
- All students who talked about WFGRS felt that the symposium is a very valuable opportunity and encouraged the college to continue with the event.

Forest Ecosystems and Society Department – Student Exit Interview/Survey

| Name: | Major Professor: | |
|-------|------------------|--|
| - | - | |

Degree: _____ Date: ____

Students have unique views on the Department's strengths and weaknesses. In an effort to improve ourselves, I (the Department Head) use this exit interview/survey as a means to help evaluate the Department's programs and to make improvements in the future. This form is to be completed by all exiting students. You are also requested to schedule an exit interview with me and to bring this completed form with you.

Unless you want otherwise, I will not share your specific comments with anyone if they could be attributed to you. I will synthesize your views with those of others in reporting results to the faculty. THANKS FOR YOUR ASSISTANCE!

- 1) Why did you initially choose the Forest Ecosystems and Society Department for your graduate education?
- 2) What are your plans for the immediate future (next 2-3 years)?

| 3) How would you rank the quality of advice/mentoring you received from your major professor? | | | | | | |
|---|---|----------|---|---|--|--|
| Poor | | Superior | | | | |
| 1 | 2 | 3 | 4 | 5 | | |
| Explain (including suggestions for improvement) | | | | | | |

4) How would you rank the quality of the Department's facilities?

| a) student offices | | | | | | | |
|---|----------|---|---|---|--|--|--|
| Poor | Superior | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | |
| Explain (including suggestions for improvement) | | | | | | | |

| b) <i>Computing resources</i> | | | | | | |
|---|---|---|---|----------|--|--|
| Poor Adequate | | | | Superior | | |
| 1 | 2 | 3 | 4 | 5 | | |
| Explain (including suggestions for improvement) | | | | | | |

c) Laboratory and growth facilities

| Poor A | | Adequate | | Superior |
|--------|---|----------|---|----------|
| 1 | 2 | 3 | 4 | 5 |

Explain (including suggestions for improvement)

Other facilities?

How would you rank the quality of the following support functions: a) *Computing support*

| Poor | | Adequate | | Superior | |
|---|------------------|----------|---|----------|--|
| 1 | 2 | 3 | 4 | 5 | |
| | | | | | |
| Explain (including sugg | estions for impr | ovement) | | | |
| b) Statistical Advising | | | | | |
| Poor | | Adequate | | Superior | |
| 1 | 2 | 3 | 4 | 5 | |
| Explain (including suggestions for improvement) | | | | | |
| c) Departmental Office Support | | | | | |
| Poor | | Adequate | | Superior | |
| 1 | 2 | 3 | 4 | 5 | |
| Explain (including suggestions for improvement) | | | | | |

Are there other areas of support you wish to comment on, including particular areas of support you feel we need but are not currently provided?

5) How would you rank the quality of the workplace environment in the department (e.g., openness to diverse views, comfortable place to work, ease of communication)?
 Poor
 Adequate
 Superior
 1
 2
 3
 4
 5

Explain (including suggestions for improvement)

6) Other than coursework and advising, did your major professor provide opportunities for professional development (e.g., encouragement to attend special workshops/training, support for travel to scientific or professional meetings)? If so, what? If not, why?

| 7) How would you rank the overall quality of classroom instruction in the FS department? | | | | | |
|--|---|----------|---|----------|--|
| Poc | r | Adequate | | Superior | |
| 1 | 2 | 3 | 4 | 5 | |

a) Which courses really stood out in your mind as very good and why?

b) Were any courses unsatisfactory? If so, which ones and how could they be improved?

c) Do you have suggestions for courses you would have liked to take that were not available?

d) Other suggestions for improvement in classroom instruction?

- 8) Were there any faculty or others who were especially influential in helping you develop as a professional during your program here? If so, who and why?
- 9) Was your graduate committee helpful to your program, or were they strictly evaluative? Explain.

| 10) How would you rank the overall quality of the Department's graduate program? | | | | | | |
|--|---|----------|---|----------|--|--|
| Poor | | Adequate | | Superior | | |
| 1 | 2 | 3 | 4 | 5 | | |
| Explain (including suggestions for improvement) | | | | | | |

- 11) Have you achieved the educational goals you intended when you enrolled in the Forest Ecosystems and Society Department? Explain.
- 12) I would appreciate any additional comments or concerns you might wish to provide. We are interested in what we are doing well and where we should consider changes.