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OVERVIEW: COLLEGE OF FORESTRY

Oregonians have recognized the importance of forestry and forest resources in Oregon by providing outstanding facilities for the College of Forestry and continued support for forest research at Oregon State University (OSU) in Corvallis. Oregon is a living laboratory for forest science research, forest management, and forest land-use planning and allocation.

Over 70 members of the OSU Graduate Faculty are actively involved in research and policy analysis aimed at optimizing the mix of benefits derived from forests, promoting more efficient management and utilization of forest resources, and protecting environmental values. The OSU College of Forestry is dedicated to increasing scientific understanding regarding forest resources and coordinates its mission closely with other campus units in the biological, physical, and social sciences. It provides leadership for regional research cooperatives in vegetation management, tree improvement, nursery management, hardwood silviculture, poplar culture, and forest recreation. Internationally, the college has research and education agreements with universities and agencies in China, India, Costa Rica, France, Kenya, Nigeria, and Brazil, and it fosters research to further knowledge and solve forestry problems in Latin America and the Pacific Rim countries.

The College has available, in three buildings on campus, over 124,000 square feet of usable space for research and teaching activities. All research and teaching assistants and most unsupported graduate students have office space. Editorial services are available for student manuscripts coauthored with faculty members. The College owns and manages an 11,500-acre research and teaching forest 10 miles from campus and 2,500 acres elsewhere in Oregon. It cooperates with the U.S. Forest Service and the National Science Foundation (NSF) in the management of the 15,000-acre H.J. Andrews Experimental Forest, an NSF Experimental Biological Reserve. Cooperative research is also done in nearby private and public forests. The Pacific Northwest Research Station (PNW) of the USDA Forest Service operates its Forestry Sciences Laboratory in conjunction with the College, fostering close collaboration on programs and projects of mutual interest. The USGS Forest and Rangeland Ecosystem Science Center also operates a research unit in this facility. The Corvallis Environmental Research Laboratory of the U.S. Environmental Protection Agency has major forestry research programs in global climate change and other aspects of forest ecosystems stress. Collectively, these facilities and faculties comprise one of the largest forest research centers in the world.

The Forestry Extension program of the College develops and delivers educational programs to small woodland owners, forestry professionals and the public. The College also has an active continuing education program providing opportunities for foresters, forest land owners, resource managers, and others to be updated on the latest scientific and technical findings which focus on improving management of the region’s forest resources.

The College has a long tradition of both undergraduate and graduate education that provides both a solid forestry background and competence in specialized fields. Few forestry programs have the breadth represented by the four Departments in the College: Forest Engineering, Forest Resources, Forest Science, and Wood Science and Engineering. Undergraduate and graduate programs are offered by Forest Engineering, Forest Resources, and Wood Science and Engineering. Forest Science offers a graduate program only.

The Department of Forest Science offers Ph.D. and M.S. programs in forest ecology, genetics, silviculture, integrated forest protection, and tree physiology, and M.F. programs in silviculture (jointly with the Forest Resources Department) and forest biology. Forest Science and Forest Engineering

jointly offer a Ph.D. program in silviculture and harvesting. Forest Science also offers a Sustainable Natural Resources Certificate and participates in the Professional Master of Science (M.S.) in Environmental Science, the Natural Resources Track in Environmental Science and the Integrative Graduate Eduation and Research Traineeship Program (IGERT) in Ecosystem Informatics.

OVERVIEW: DEPARTMENT OF FOREST SCIENCE

The Department of Forest Science is committed to strong programs of education and research to help society deal effectively with the pressing issues of forest health, productivity, and conservation in forest systems.

Formed in 1976 from a division of the Forest Management Department within the College of Forestry, the Department of Forest Science conducts research and educates graduate students about forest health, productivity and conservation. Management of forest land has become highly complicated and controversial, making it more important than ever to maintain a strong base of scientific knowledge. OSU's Department of Forest Science is a leader in this effort regionally, nationally and globally.

The Department has four functions: (a) research, (b) resident instruction, (c) extension, and (d) continuing education. These functions are complementary and intertwined, and are the vehicle by which we meet the goals of the Department.

The broad goals of the Department of Forest Science are:

- To describe to the people of Oregon and elsewhere the fundamentals of forest structure, function, growth, and change, and to aid in making sound forest management and public policy decisions.
- To maintain expertise and to provide graduate and extension educational opportunities in the disciplines of forest ecology, forest genetics, forest physiology, silviculture, and sustainable forestry/agroforestry - particularly as they apply to forest regeneration, forest ecosystem dynamics, growth and culture of young natural stands and plantations, classification of forest land, and protection of forests.
- To develop efficient and environmentally sound systems for producing benefits from forest lands in Oregon and elsewhere.
- To develop integrated programs - within the Department and with other departments, colleges, universities, agencies, and industries - to study and solve forest problems.

Our goals are met through the complimentary and intertwined functions of research, resident instruction, extension, and continuing education.

The Department includes 22 professorial faculty, 10 professional faculty, 12 adjunct faculty in other departments, 86 courtesy faculty, 13 research associate faculty, 21 faculty research assistants, 19 senior research assistants, 12 adjunct faculty, 3 technical classified staff, 2 secretarial staff, and 51 graduate students pursuing Forest Science degrees. The Department's annual budget is approximately $9.3 million. Approximately 22 percent of this budget is generated from the Oregon general fund and harvest tax, and the federal McIntire-Stennis appropriation for forestry research. The remaining 78 percent of

the budget comes from grants, research cooperative funds, cooperative aid agreements, and contracts of various kinds.[1]

Research in the Department of Forest Science focuses on fundamental and applied research to support forest practices in areas of reforestation, silviculture of young and mature natural stands and plantations, and land capability classification. All biological levels of organization within natural and managed forest communities and individual trees are addressed by current departmental research projects.

This information was developed by the Department to acquaint prospective students and others with our educational programs. In addition, it is a compilation of our rules, procedures, and guidelines which will help students apply for admission and facilitate the successful completion of their degree programs. Please contact the Department of Forest Science for clarification of any point about which you are unsure.

FOREST SCIENCE GRADUATE EDUCATION

Graduate study is structured specifically for those students interested in careers in research and teaching, and in specialized areas of forest science and practice. Emphasis in graduate education is placed on the ability to define and solve researchable problems in forest biology.

Forest Science students come from varied backgrounds. Some have undergraduate degrees in forestry; others have their training in related biological fields. Applicants are required to achieve specified competency in forestry and related subjects by taking undergraduate courses, through independent study or by other means determined by each student's graduate committee. All graduates must be versed in broad aspects of forest science as well as in their own area of specialization. Graduate students are encouraged to participate actively in the Department's large, diverse program of seminars, continuing education courses and workshops, international research, and other professional and educational activities.

The Department of Forest Science offers graduate programs leading to degrees in:

- Master of Forestry (M.F.) in Silviculture or Forest Biology,
- Master of Science (M.S.) in Forest Science
- Doctor of Philosophy (Ph.D.) in Forest Science or Silviculture and Harvesting

The Department also offers a Graduate Certificate in Sustainable Natural Resources, and participates in the Master of Arts in Interdisciplinary Studies (M.A.I.S.) graduate program and Professional Master of Science in the Environmental Science, the Natural Resources Track in Environmental Science and the Integrative Graduate Eduation and Research Traineeship Program (IGERT) in Ecosystem Informatics.

MF in Silviculture and its Admission requirements

The M.F. program emphasizes three areas: biology, silviculture, and integrated forest protection. The M.F. in silviculture (accredited by the Society of American Foresters) is administered jointly with the Department of Forest Resources. Students in the three M.F. programs prepare for careers as professional biologists, silviculturists, or pest managers capable of analyzing opportunities in the context of the

[1] Budgets and financial statistics are subject to change.

natural resource management objectives of a landowner, with sensitivity to all physical, biological, economic, and environmental forest resource values.

The M.F. in Silviculture, administered jointly by the Departments of Forest Science and Forest Resources, allows practicing foresters to upgrade their professional skills.

To be admitted to the M.F. in the Silviculture degree program, students must have either:

- a B.S. in Forestry, or
- a B.S. or higher degree in a field closely allied to forestry and at least three years of forestry-related experience.

Applicants without this background may be admitted on a provisional basis subject to performance and completion of background requirements (see Minimum Educational Background), as certified by the student's advisory committee and the Department Head. For information on eligibility for admission, students should contact the Graduate Program Coordinator, who will advise them about the suitability of their degrees and forestry-related work experience. Additional undergraduate course work in Forestry may be required.

MF in Forest Biology and its Admission Requirements

The M.F. in Forest Biology program emphasizes graduate coursework in one of five areas of emphasis in forest biology, with supporting work in another area. The program can be completed in 12 months, but it may be extended in accordance with personal needs and the policies of the OSU Graduate School. The program allows professionals in forestry to enhance their expertise by accomplishing graduate work in one of five areas of forest biology:

- Forest Wildlife Management
- Tree Improvement
- Silviculture
- Regeneration
- Vegetation Management

The requirements for this degree are described below:

- Complete 45 credits from the approved curriculum.
- Select an area of emphasis and complete required coursework within that area.

In an oral exam before the student's committee, present and defend a paper on an approved topic within the student's area of emphasis. The paper will normally be an intensive library review of a particular subject, though other approaches, such as a detailed report based on work performed prior to enrollment, may be suitable if authorized by the student's committee. The paper and the performance during the oral exam should demonstrate an understanding of broad aspects of forest science and its relevance to contemporary forest resources management.

To be admitted to the M.F. in Silviculture degree program, students must have either:

- a B.S. in Forestry, or
- a Bachelor's or higher degree in a field closely allied to forestry plus at least three years of forestry-related experience.

Eligibility for admission is determined by the Graduate Program Coordinator, who will advise prospective students about the suitability of their degrees and forestry-related work experience. Additional undergraduate coursework in Forestry may be required.

MS and Ph.D in Forest Science and their Admission Requirements

The M.S. and Ph.D. programs in Forest Science focus on specialized research within the context of broader scientific issues and are structured specifically for those interested in careers in research, teaching, and specialized areas of forest science and forestry practice, They are available in five areas of concentration: forest ecology, forest genetics (including biotechnology), forest physiology, silviculture, and integrated forest protection. An M.S. degree is also offered with a specialization in agroforestry/sustainable forestry. All degrees, regardless of area, are designated as "Forest Science" on the student's diploma.

The M.S. degree certifies mastery of about one year of specialized graduate course work, and the ability to conduct research. An M.S. degree should be completed in two years unless the project is unusual and requires more than a single year of laboratory or field work.

The Ph.D. degree normally requires at least an additional two years of graduate level course work beyond the M.S., and research that shows originality and the probability of advancing science. The results should meet publication standards in a respected refereed journal.

Ph.D. candidates must first obtain an M.S. before moving to Ph.D. work, but this requirement maybe waived in some circumstances (see Proceeding Directly to the Ph.D.).

Ph.D in Silviculture and Harvesting and its Admission Requirements

The Ph.D. in Silviculture and Harvesting is jointly administered with the Department of Forest Engineering. Students who obtain this degree will have expertise in both growing and harvesting trees, and should be competent to teach these subjects at the university level.

Applicants for the Ph.D. in Silviculture and Harvesting must meet the standards and requirements of the Departments of Forest Science and Forest Engineering, as well as those of the Graduate School. Prospective students may apply through either Department.

The degree requires both a biological and quantitative background. Applicants with bachelor's and master's degrees in forestry (or a related biological discipline) must have a strong course background in quantitative sciences. Those with both degrees in engineering must have a strong course background in biological sciences. Applications will be evaluated on the basis of the letter of interest, academic records, letters of reference, and GRE score.

For more information about any of these programs, please contact:

Graduate Program Coordinator
Department of Forest Science
321 Richardson Hall
Oregon State University
Corvallis, OR 97331-5752
fsdept@oregonstate.edu

Contacting Potential Major Professors

Students considering application to the department are encouraged to communicate directly with potential major professors. The likelihood of admission is greatly improved by discussing study interests with prospective major professors before submitting application materials. Once a student and professor are satisfied that they are interested in working together and that the necessary financial support is available, the student must be accepted by Oregon State University. Alternatively, although admission is less probable, students may apply directly to the department, which will then attempt to locate a suitable major professor and financial support

Students seeking admission to any Forest Science graduate program must apply both to Oregon State University and to the Department of Forest Science.

General Application Procedures

An undergraduate degree in forestry is not a requirement for admission to the M.S. and Ph.D. programs; however, students must demonstrate a basic knowledge of forest resource management before a degree will be granted. This background may be developed concurrently with a student's graduate work. Applicants for the Ph.D. program must hold an M.S. degree (completed or near completion) in forest science or a related field. Students wishing to proceed directly to the Ph.D. without an M.S. must first apply and be accepted into an M.S. program, and then petition the Scholastic Committee (see "Proceeding Directly to Ph.D. Without Completing the M.S.").

Applicants for admission to graduate degree programs must first meet the University requirements as set forth in the Graduate Catalog. They are then considered by the departmental Scholastic Committee, which is chaired by the Graduate Program Coordinator and includes two faculty members and one student representative. This committee examines applicants for scholastic ability as evidenced by the required application documents.

Particular attention is given to grades received in physical and biological science courses, and to other evidence of achievement in these and related fields. Applications must be complete before they will be considered by the Scholastic Committee.

If an applicant is judged admissible scholastically and has not yet contacted a desired major professor, the Department Graduate Coordinator will search for a major professor within the Department. If an applicant is not admissible scholastically, a major professor cannot be found, or there is insufficient space available in the Department in that particular field of interest, the Graduate School will be so advised and the applicant will be informed by the Office of Admissions that his/her application has been rejected. If a major professor is identified, and if space is available, the Department Graduate Coordinator will notify the applicant directly, and advise the Graduate School appropriately.

Applying to OSU and the Department of Forest Science

Apply for admission online, or send the following information to Oregon State University at this address:

Office of Admissions
Oregon State University
104 Kerr Administration Building
Corvallis, OR 97331-2106
http://oregonstate.edu/admissions/

- Original and two copies of the application form obtained from Office of Admissions (or apply on-line). MAIS applicants must submit an original and four copies of the application form.
- A $50 check or money order in U.S. dollars payable to Oregon State University. This is a non-refundable application fee.
- Three photocopies of all official transcripts (not grade slips or reports) of previous academic work, undergraduate and graduate. (MAIS applicants must submit five photocopies of all transcripts.) Transcripts showing the last 90 quarter (60 semester) credit hours of graded work of the first baccalaureate degree must be included.
- All graduate and post-baccalaureate transcripts must be included. International applicants must provide a certified English translation of their academic transcripts. If you are admitted, two official transcripts from the above institutions must be received by the Office of Admissions prior to your second term of registration.
- Two copies of your statement of objectives and particular fields of interest. (MAIS applicants must submit four copies of the statement of objectives.)
- Three letters of professional reference are required of all applicants, addressed to the proposed major department/program. If the applicant has a master's degree, a letter of application from his/her major professor should be included. Reference letters should be on official letterhead. (MAIS applicants must submit three copies each of their three letters of professional reference.)
- International applicants must also provide two photocopies of their Test of English as a Foreign Language (TOEFL) score. TOEFL scores over two years old can be used for conditional admission consideration. (MAIS applicants must submit four photocopies of their TOEFL score.) If admitted, the official TOEFL score must be received by the Office of Admissions before the start of the first term of enrollment.
- A financial certificate with supporting documentation, demonstrating sufficient financial resources for the desired academic program is required of all international applicants.

The Department of Forest Science also requires additional material from applicants:

- A copy of the three letters of professional reference are required of all applicants, addressed to the proposed major department/program. If the applicant has a master's degree, a letter of application from his/her major professor should be included. Reference letters should be on official letterhead. (MAIS applicants must submit three copies each of their three letters of professional reference.)

- Graduate Record Examination (GRE) verbal, analytical, and quantitative scores, less than five years old, from all applicants. Advanced test scores are not necessary. Request information about times, locations, and administration of the GRE from:

  GRE - ETS
  P.O. Box 6000
  Princeton, New Jersey 08541-6000
  USA
  gre-info@ets.org
  http://www.gre.org/

Note: When indicating score report recipients on your GRE registration form, please specify the "Forestry" department code together with the Oregon State University institution code to ensure that we receive your scores. Be sure to take the GRE far enough in advance that your scores will reach the department before application deadlines.

Application deadlines

The Scholastic Committee reviews applications when they are received. Applications for Fall term - including all materials - should be received by the preceding January 15 to ensure full consideration for admission and financial assistance. Admission term deadlines:

January 15 for Fall Term
September 15 for Winter term
December 15 for Spring term
March 15 for Summer term

When Fall term applications are received between January 15 and June 15, applicants are considered for admission but have a reduced chance of receiving financial assistance. Most assistantships and scholarships are awarded during February and March. Applications received after June 15 are not usually considered for the upcoming Fall quarter.

Notice of acceptance or rejection is usually sent within two months of the deadline date (e.g., by March 15 for the January 15 Fall term deadline).

FINANCIAL ASSISTANCE AND STUDENT LIFE

All applicants and returning graduate students are automatically considered for financial assistance. No special application or additional material is required. Notification of an award of financial aid is sent together with notification of admission, or at a later date if new sources of support arise.

Graduate Assistantships – details of GRA's and GTA's

Graduate Research Assistantships (GRA).

A Graduate Research Assistantship (GRA) is awarded to help accomplish specific research objectives or to facilitate the research of the Department. Thesis work usually qualifies as an essential component of such projects, but other work, instead of or in addition to thesis research, may be specified by the Supervisor of the GRA. The types of work required will vary for different GRA appointments because of differing project needs

Graduate Teaching Assistantships (GTA).

A Graduate Teaching Assistantship (GTA) is awarded for up to three terms. Although there are rarely GTA appointments in the Forest Science Department, students from Forest Science may be selected as GTAs in Forest Resources or other departments. GTAs are all members of the Coalition of Graduate Employees collective bargaining unit.

Collective Bargaining Units.

All graduate teaching assistants and some graduate research assistants may be members of the Coalition of Graduate Employees bargaining unit. For these students, terms and conditions of employment for service not required as part of their degree programs are prescribed in a collective bargaining agreement. For grievance procedures, these graduate assistants should refer to that document.

Compensation. A GRA is the most common form of financial aid. The specific stipend is approved by the Department Head for each GRA based on stipend guidelines determined annually by the College. Stipends for 0.49 FTE (nearly half-time work) are approximately $1,589.07* (pre-M.S.) or $1,701.28* (post-M.S.). Appointments of 0.20 or 0.30 FTE pay proportionally less, but all appointments include full tuition remission; students still pay fees of approximately $482.36 per term. Appointments can be for one or two quarters rather than for an entire year. A student with a GRA or GTA may not have university employment, including student wages, that exceeds 0.49 FTE including the assistantship.

*Salaries and fees are subject to change. Salaries and fees shown are for the 2007-08 school year.

Course Loads.

Students holding a GRAor GRA must complete 16 credit hours of graduate course work fall, winter, and spring terms, and 9 credit hours summer term. No more than 12 of these hours may be class work; the balance will be thesis hours.

Work Schedules.

The specific assignment and work schedule for a GRA is established by the Supervisor. The number of hours of assigned work per week will vary with the FTE. A GTA of 0.49 FTE requires an average of 20 hours of project work per week over the assistantship period (approximately 255 hours per quarter). Other variations are possible with approval of the Supervisor.

It is not unusual for students to work less than these amounts during their first year of classes and to exceed these levels when conducting thesis research. Thesis research is likely to require more of the student's time than that required by the GRA appointment. A significant investment of personal time is also needed for satisfactory completion of a thesis.

Duration of Funding.

The Department wants students to conduct their research efficiently and finish their programs in a timely manner. Historically, full-time students in the Department have completed M.S. degrees in 8 quarters (2 years) and Ph.D. degrees in 16 quarters (4 years). Occasionally, unforeseen circumstances or the nature of the research will cause degree programs to run longer than intended. However, incentives promoting completion are important. Thus, as a general guideline, a GRA will be provided to a student for not more than 2 years in a master's program and 3 years in a Ph.D. program. The source of the funds determines the rigidity to which the guidelines are applied. For an externally funded GRA, support can be extended at the option of the Project Leader. For an internally funded GRA, a waiver of this guideline can be sought by petition to the Department Head. In all cases, appointments require satisfactory

academic performance and progress toward a degree as determined by the Department Head in consultation with the Major Professor, Graduate Advisory Committee, and student.

Health Insurance, Sick Leave and Annual Leave. As a condition of appointment to a graduate assistant position, you are required to have health insurance. The University has established a graduate health insurance plan and will contribute 75% per term towards the "graduate assistant only" premium and administrative fees. You should plan to authorize a deduction from your stipend for any additional premium and administrative fee costs that may result from this agreement. You may also enroll family members or a domestic partner on a self-pay basis through a deduction from your stipend.

Information regarding the health insurance plan, including criteria and forms to request a waiver, may be found at http://studenthealth.oregonstate.edu/insurance/grad/

Your insurance will become effective on the 1st of a month and end on the last day of a month. If your assistantship began before the 15th of the month then your insurance effective date will be the first of that month. If your assistantship began the 16th or after then your insurance effective date will be the 1st of the following month. It is important to make sure that all departmental paperwork is completed and received by HR and payroll for processing. If processing is delayed & your information can not be entered into the system you will see a double deduction on your paycheck. Payroll closes its system on the 16th and nothing further for that month's paycheck may be added. If your information is not in the system before the 16th you will see the double deduction for the following month.

Current per-month pre-tax payroll deduction is as follows:
Student only coverage $52.92
Employee + Spouse/Partner $263.84
Employee + Children (1 or more) – $200.55
Employee + Spouse/Partner + Children - $411.45

Graduate Assistants are not eligible to accrue or use sick leave or annual leave. Arrangements for time off must be arranged with and approved by the Major Professor, Department/Program Chair, and the Graduate School Dean.

Other Financial Assistance

Financial assistance is also available through several Departmental, College, and University fellowships. There are often special application requirements for recipients of fellowships beyond meeting academic standards. These guidelines and deadlines are available through the Graduate Program Coordinator.

The Office of Financial Aid and Scholarships administers student loans, grants, College Work-Study, and scholarship programs. The Office of Financial Aid and Scholarships also helps students find part-time employment. For more information, contact:

Office of Financial Aid and Scholarships
Oregon State University
218 Kerr Administration Building
Corvallis, OR 97331-2120
541-737-2241
financial.aid@oregonstate.edu
http://oregonstate.edu/admin/finaid/

Housing

Graduate students may live in any of the on-campus residence halls or cooperatives. Qualified graduate students may also apply for positions as Head Residents in campus housing facilities. The University maintains apartments and other rental properties for students with families. To apply for on-campus housing or family student housing, students should contact:

University Housing & Dining Services
Oregon State University
102 Buxton Hall
Corvallis, OR 97331-1317
541-737-4771 or 1-800-291-4192
uhds@oregonstate.edu
http://uhds.oregonstate.edu/

In addition, the Dean of Students lists current openings in a variety of privately owned rentals in Corvallis and surrounding areas:

Dean of Students
Kerr Administration Building,
Room 200A
Oregon State University
Corvallis, OR 97330
541-737-3661

Other housing sources include the Corvallis Gazette-Times local newspaper:

Corvallis Gazette-Times
600 SW Jefferson
Corvallis OR 97333
541-753-2641
http://www.gazettetimes.com/

Graduate Student Guides

The Graduate Catalog, issued annually from the Graduate School, details information on general university regulations and procedures. The Catalog also contains a complete list of graduate-level courses offered by all departments at OSU. The Graduate School Guide to Success is a compilation of all regulations about graduate programs, examinations, and graduation requirements.

Both may be obtained from the Graduate School:

Graduate School
Kerr Administration Building
Oregon State University
Corvallis, OR 97331-2121
541-737-4881
http://oregonstate.edu/dept/grad_school/

CERTIFYING DEPARTMENTAL REQUIREMENTS ARE MET

Committee members who are Forest Science faculty are responsible for examining students on the Departmental requirements and will judge whether or not all Departmental requirements have been met at preliminary (Ph.D. only) and all final examinations. A Departmental faculty member of the committee will examine competencies and judge fulfillment of Departmental requirements.

While the level of expected achievement is much greater in the Ph.D. program, the goal of both programs is excellence in forest science research and education. Achievement of excellence is judged by:

- Depth: A student's attainment of sufficient knowledge in a major discipline of forest science to understand and carry out state-of-the-art research;
- Background and Integration: A student's ability to integrate their knowledge of a major discipline of forest science within the broader contexts of forest resources management and forest science;
- Communication: a student's ability to communicate orally and in writing with other peers and professionals.

Credit Hour Requirements

For M.S. students, the program must include a minimum of 45 credits. If a minor is declared, at least 15 of these credits must be in the minor a minor professor must be designated. Six to twelve credits are usually allowed for thesis research. A minimum of 30 credits must be completed on campus ("in residence"). Although it is theoretically possible to complete the M.S. degree in three terms, the average time for completion in this department is two years.

For Ph.D. students, the program must include at least 36 credits of regular course work. Blanket courses (those with a "0" as the middle digit of the course number) cannot be counted toward this 36-credit requirement. At least 108 graduate credits are required, including 36 thesis credits and the 36 credits of regular course work. No more than 15 blanket course credits, other than thesis and seminar, may be included toward the 108 credits. A minor is optional in Ph.D. programs, and more than one minor may be declared. If a minor is declared, it must consist of at least 18 credits (15 credits for an integrated minor).

Proceeding Directly to Ph.D. Without Completing an M.S.

Candidates for a Ph.D. degree usually first obtain an M.S. degree in some field related to Forest Science. The experience gained while obtaining the M.S. is extremely valuable to undertaking the more complex challenge of a Ph.D degree. However, students may wish to forgo the M.S. and proceed directly to the Ph.D., either because the student already has gained the research experience equivalent to an M.S., or the student is judged exceptionally capable of performing quality graduate work and the student’s career goals would be impeded rather than advanced by pursuit of an M.S. The Department has agreed that the option should exist to enter our Ph.D. program without completing a Masters, and has adopted the following philosophy, guidelines, and procedures for dealing with this situation. The Department also plans to review this policy in three to five years, and consider whether it should be continued or modified.

Philosophy. The experience, perspective, and maturity gained in a Masters program is essential to successful completion of a Ph.D. However, these characteristics may in some cases be gained without formal completion of the M.S. degree. Therefore, the option of bypassing completion of the Masters degree should exist. This option may be appropriate for some students with strong research backgrounds and those making rapid progress in their graduate work. Because it is difficult to evaluate the abilities of students not in residence, it is necessary for all non-Masters degree students to begin in our Masters program.

Procedure. With the major professor's consent, students with strong backgrounds who desire to proceed into the Ph.D. program may form a committee early in their programs following the Ph.D. model. The committees would be composed of five persons and constituted under University Ph.D. program guidelines (which would normally also satisfy Masters committee guidelines). It would, however, formally be a Masters committee until the student is admitted to the Ph.D. program.

The student will normally be enrolled for one year in the Masters program before petitioning. During this time, the student will likely begin to plan their program of study and thesis research, both of which should be appropriate to the Ph.D. During the year, the student will discuss their case with their committee. If the Committee (graduate representative excepted) unanimously agrees either that the student has the experience equivalent to an M.S., or has exceptional potential to complete the Ph.D. directly the case may proceed.

Criteria. The following elements are considered important criteria for making this determination:

1. Significant experience in research, including planning, execution, analysis, interpretation, and writing.
2. Depth and breadth, both in research experience and course work.
3. Intellectual and emotional maturity. The student should inspire high confidence in their ability to complete a Ph.D.

Once the committee agrees that the case should proceed, the student will write a letter to the Department Head that discusses the student's goals and abilities with respect to the above criteria. The letter should describe, or include, specific examples of accomplishments and qualifications. The major professor will also write a letter that gives an independent assessment of the student's abilities. The Scholastic Committee will review the case and make a recommendation to the Department Head, who will make the final decision.

MAJOR PROFESSOR AND GRADUATE ADVISORY COMMITTEE

Soon after the student’s arrival at OSU, a graduate committee is selected jointly by the major professor and the student. All members of the Committee must be members of the Graduate Faculty at Oregon State University. This may include faculty from other universities if approved by the Graduate School.

The Graduate Advisory Committee has primary responsibility for ensuring that a student meets the requirements for the degree sought. The Major Professor, in consultation with the student, recommends committee members. Upon approval by the Department Head, the Graduate School appoints the Graduate Advisory Committee and delegates to it responsibility for seeing that Graduate School requirements are met; the Department of Forest Science similarly delegates responsibility for seeing that

Departmental requirements are met. The Graduate Advisory Committee is thus pivotal in administering both University and Departmental requirements.

Composition of Graduate Advisory Committee

In all degree programs the Major Professor has primary responsibility for coordinating the Committee and guiding and preparing the student (see "Responsibilities of Major Professors").

M.S. students in Forest Science. The graduate advisory committee is composed of a major professor, a minor professor (if a minor is declared), a Graduate Council Representative, and one other faculty member from the Department of Forest Science. Additional members may also be appointed.

Ph.D. students in Forest Science. The graduate advisory committee is composed of a major professor, a minor professor (if a minor is declared), a Graduate Council Representative, and two or more other members, at least one of whom is a member of the Department of Forest Science, making a total of five or more members.

Ph.D. students in Silviculture and Harvesting. This program is jointly administered by Forest Science and Forest Engineering. The committee for each student will be drawn from the graduate faculty of both the Departments. Otherwise, procedures are the same as those for Forest Science Ph.D. students.

M.F. in Silviculture students. The major professor must be a member of the graduate faculty in either Forest Science or Forest Resources, and must be approved to be a major professor for M.F. committees. The committee consists of the major professor and at least two other members of the graduate faculty, including one each from the Departments of Forest Science and Forest Resources. Committee members from the Department of Forest Science are responsible for ensuring that students integrate their areas of specialization into the broad field of forest resources management.

M.F. in Forest Biology students. Committee requirements are similar to those for the M.S. degree. The graduate advisory committee is composed of a major professor, a minor professor, and one other member of the graduate faculty from the Department of Forest Science.

The composition of the academic advising committee should consist of the student, major professor, minor professor (a faculty member from Social Values, Policy, and Ethics area of emphasis), and one other faculty member from the Forest Science Department.

Responsibilities of Major Professors

This statement clarifies the responsibilities of major professors regarding student advising. Although professor-student dynamics are highly variable depending upon the personalities involved, all major professors are expected to:

- Help students define their interests and choose appropriate course work. Work with the student and program committee to see that all requirements are met.
- Provide specific suggestions on designing and carrying out thesis research, particularly at the M.S. level.

- Provide or help students find funding for graduate studies. In addition, promptly advise students of duration and conditions related to employment or other support offered (e.g., how long it is likely to last, what level of performance is required for continued support). If available funds are insufficient to support the student through completion of the degree, provide counsel about alternative funding sources.
- Alert students to job opportunities after graduation, and help them make the necessary professional acquaintances to enhance their chances of success.
- When appropriate, guide and mentor students regarding additional resources and career and personal decisions affecting their professional development.

COMPETENCE IN FOREST SCIENCE

The department requires few specific courses for completion of a degree. Instead, it requires that each student demonstrate competence in several areas, which may be achieved through a variety of means. It is the responsibility of the student, major professor, and graduate advisory committee to see that a student has achieved satisfactory competence in the required areas.

For all students, the committee members who are Forest Science faculty determine whether the departmental requirements - including competency requirements - have been met. This determination is made by the student's Graduate Advisory Committee at the final examination for Master's students, and at the preliminary oral examination for Ph.D. students. This responsibility requires active evaluation of the student's needs by the major professor and graduate advisory committee early in the student's tenure in the department.

The department provides a Competency Requirement form. The student, in consultation with their graduate advisory committee, develops a written plan to achieve competency in each area and the plan is attached to the form. When the plan is satisfactory to the committee, the department's Graduate Program Advisor reviews the plan and signs the form if it is satisfactory. The Major Professor signs the form when the student has demonstrated competence in all areas and when the graduate advisory committee determines whether competencies have been fulfilled.

Departmental Competencies Requirements
Department of Forest Science

To Students and Graduate Committee:

This checklist is to serve as a reminder of Departmental requirements. Use it during examinations to ensure all requirements are addressed and satisfied. Forest Science Department committee members jointly determine if competencies are met and indicate fulfillment of these and any other Departmental requirements on the Graduate School's examination report form.

Competency Requirements

Background in Forestry

___ Silviculture

___ Forest Ecology

___ Forest Resource Management Pol

___ Integration in Forest Science

___ Current Natural Resources Research

___ Current Departmental Research

___ Statistical Analysis

___ Research Planning

___ Computer Skills

___ Oral Communication

PhD. only

___ Social implications

___ Breadth

Endorsements Signature Date

Student _____

Graduate Program Coordinator _____

Major Professor _____

I certify that the above student is competent in the areas listed above.

Thesis

Students pursuing M.S. or Ph.D. degrees in Forest Science are expected to conduct creative and scientifically sound research leading to a defensible thesis and scientific publications. This entails careful articulation and testing of well conceived and clearly stated hypotheses. M.S. and Ph.D. candidates work under the direction of their major professor and other qualified faculty members. However, Ph.D. candidates are expected to be more independent, and capable of conceiving and directing original research with a lesser amount of guidance. Collaboration on projects or experiments of mutual interest and significance is expected. For both M.S. and Ph.D. candidates, the thesis is the capstone of the student's graduate program and should represent the student's best effort.

Students and their major professors, in cooperation with the student's graduate advisory committee, select appropriate topics for thesis research. By the third term of residency for M.S. students, and by the fifth term for Ph.D. students, a thesis research plan must be filed with the department. This plan, which may be completed as part of FS 521, Natural Resource Research Planning, should include clear objectives (for testing specific hypotheses) and a design and methods section appropriate for the planned analysis. The major professor reviews and may aid in the design of the plan. Approval from the student's committee, as well as from a departmental statistical consultant, is recommended. The plan may be subsequently amended, based upon experience gained through research and further education.

The Forest Science faculty encourages graduate students to prepare their theses in a style suitable for submission to a journal. For some theses, this may result in more than one manuscript. If the manuscript form is used, the thesis must include separate Introduction and Conclusions chapters. The student's committee may require that additional material be incorporated into a Literature Review or Appendices.

The thesis for students pursuing a Ph.D. in Silviculture and Harvesting is administered by the Department of Forest Science and involves research emphasizing systems analysis of both silvicultural and engineering problems.

M.F. students do not write a thesis.

Language Requirement

The Department of Forest Science has no formal foreign language requirement. Students should, however, be knowledgeable about foreign language literature vital to the subject area of their theses. The graduate advisory committee, at its discretion, may require that a reading and/or speaking knowledge of a foreign language be part of a student's program if deemed pertinent to the student's goals.

The departmental procedure for examination in foreign language reading ability is as follows: A competent examiner chosen by the major professor selects three publications pertinent to the candidate's field. For the examination, the candidate is given one hour for each publication to write a translation of as many lines as possible. The candidate may use dictionaries or any other aids except English translations of the articles or help from another person. Passing the examination requires a reasonably accurate translation of at least 20 printed lines from each of the three assigned publications.

For French, German, Spanish, or Russian language skills to be indicated officially on the transcript, a student must pass the Graduate Student Foreign Language Test administered by the Educational Testing Service (Princeton, NJ).

EXAMINATIONS

Examinations are used to determine whether a student meets University and departmental requirements. These examinations are (a) the departmental written preliminary examination (Ph.D. students only), (b) the oral preliminary examination (Ph.D. students only), and (c) the final examination (all students; includes thesis defense if applicable). A Ph.D. student must pass the comprehensive written and oral preliminary examinations before advancing to candidacy. The graduate advisory committee shares responsibility for ensuring that all university and departmental rules and standards are met, but the major professor is responsible for determining when the student is adequately prepared for formal examinations.

For both the oral preliminary examination and the final examination, more than one negative vote from the graduate advisory committee means that the student has failed the exam. When a student fails, the committee may recommend permitting or not permitting re-examination. No more than two re-examinations are allowed by the Graduate School, although the department may allow fewer than two re-examinations.

Preparing for Examinations

Suggestions to Major Professors and Students.

Our goal is to assure that students are adequately prepared and ready for their exams, and that the likelihood of students passing their exams is enhanced. This requires active preparation by the student and pre-exam evaluations by the major professor.

Following are some suggestions to major professors and students for preparing for examinations. Different students have different needs and may require different kinds of preparation; there is no single formula for preparing for an examination. Of course, the student should have prepared for technical questions by studying class notes, books and other materials well before the examination. In addition, the following suggestions may be helpful.

- The major professor may conduct an interview with the student prior to the examination to determine if the student is, in fact, adequately prepared for the examination. If difficulties are identified, additional interviews may be appropriate.
- The major professor may contact other faculty for opinions about the preparedness of a student. Sometimes other faculty, particularly those who have had the student in classes, can lend insight into potential problems. “Assessment of Examination Readiness” is a form which can expedite obtaining opinions from other faculty.
- The student may arrange for practice examinations with peers and with professors. The major professor should assist students in this endeavor. The student may participate in examination practice sessions which may be offered in the department or elsewhere.

Written Preliminary Examination (Ph.D. students only).

Three to four weeks before the Preliminary Oral Examination is planned, students take a comprehensive written examination covering major areas in their field of study. This examination is administered by the major professor in consultation with the other members of the student's Graduate Advisory Committee. The exam assesses the student's competence in the theory and practice of research and the use of this information in natural resource sciences and management. The examination may be either open or

closed book, as determined by the committee; it will not exceed two eight-hour days in duration. Successful completion of this written examination is determined by the major professor and is required before the Oral Preliminary Examination may be taken.

Oral Preliminary Examination (Ph.D. students only).

This examination is a University requirement, and is scheduled and administered according to the rules of the Graduate School. Students may be examined in all fields related to their specialty, including topics touched upon in the written comprehensive examination, course work, and other areas pertinent to their proposed area of research. In addition, all areas of competence may be examined. This examination is at least two, but normally not more than, three hours in length.

Graduate Advisory Committee members who are Forest Science graduate faculty have primary responsibility for examining students on departmental requirements and for judging whether these requirements have been met.

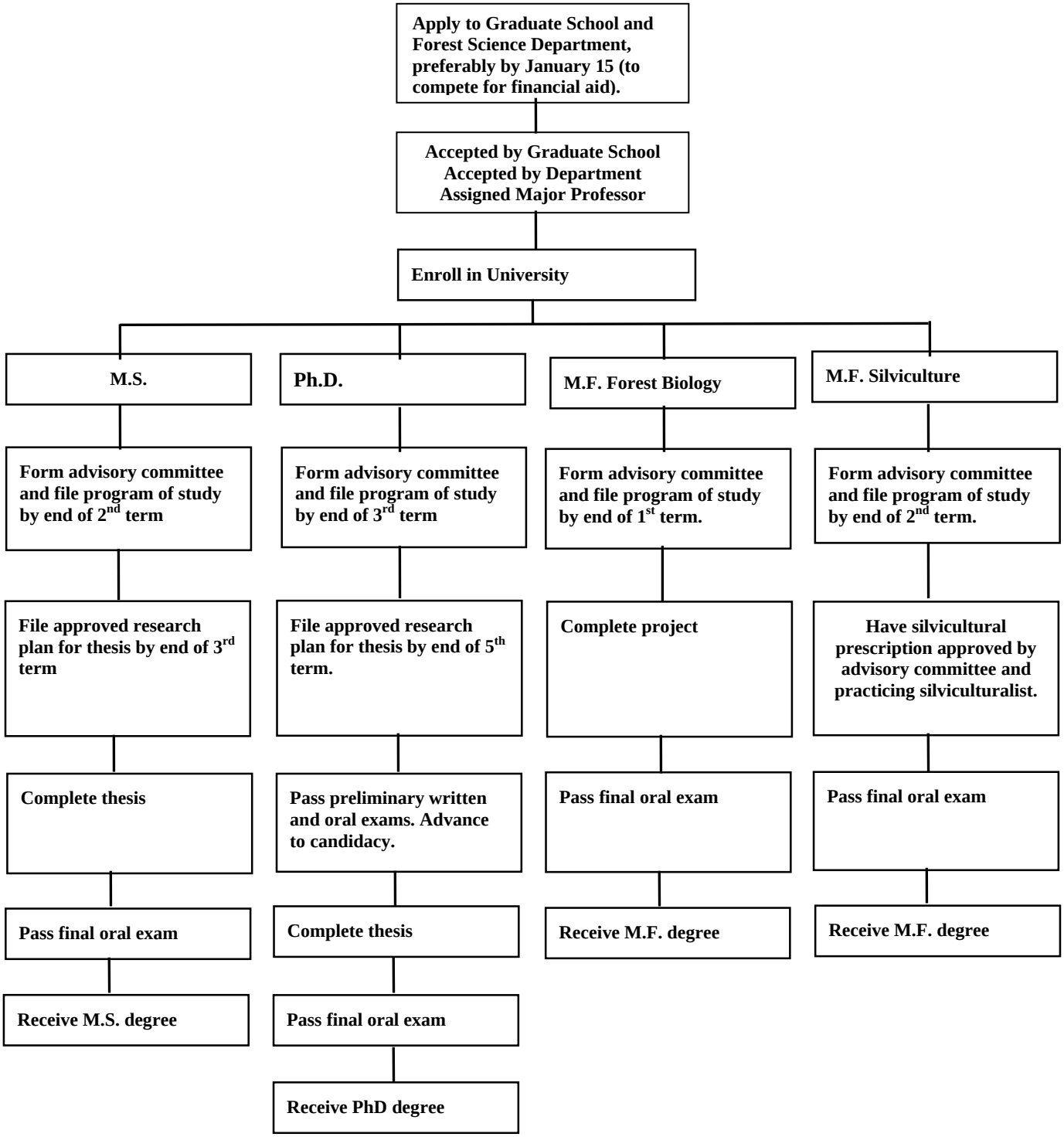
Final Examination (M.S., Ph.D., and M.F. students).

The final examination is a University requirement and is scheduled and administered according to the rules of the Graduate School. The examination includes a public presentation of the thesis or paper, as well as a private defense and examination by the Graduate Advisory Committee. Students are examined primarily on their theses (or their final papers or prescriptions, for M.F. students) and on related topics, but questions on any subject pertinent to their area of specialty may also be included. In addition, all appropriate areas of competency may be examined, particularly those not touched upon in previous examinations and those in which a deficiency has been identified.

For M.F. in Silviculture students, the final oral examination will consist primarily of a defense of the silvicultural prescription prepared by the student for the FS506/FOR506 class and departmental competencies, but other aspects of the student’s program may also be examined.

The exam will be conducted by the student’s Graduate Advisory Committee.

FLOWCHART FOR COMPLETION OF GRADUATE DEGREES IN FOREST SCIENCE



Department of Forest Science Oregon State University Masters Program Check-Off List		
When to do it	**What to do**	**Date Completed**
Before start of term	Be advised about program by major professor; register	
First or second term	Select committee members[2]	
First or second term	Schedule a Program of Study meeting with committee members[3]	
Before completing 18 credits of course work	File signed Program of Study with Graduate School	
At the time Program of Study is filed with Graduate School	File Forest Science competencies with Department	
One term before final exam	Select Graduate Council Representative (if thesis is required).	
Five weeks before final oral exam	File Diploma Application with Graduate School.	
At least 1 week prior to taking final oral exam	Schedule and notify committee and major department of date, time and place of final exam.	
	Submit an Event Scheduling Form to the Graduate School.[4] (If necessary, restructure of graduate committee reviewed at this time, and the submission of a Request to Restructure the Graduate Committee may be necessary if committee membership has changed.)	
<u>If thesis is required</u>: At least one week before final exam	Provide each committee member with an exam copy of thesis. (Note: one week is insufficient time for adequate thesis review by committee members.)	
	Submit only the pretext pages (i.e. abstract, copyright [option], title page, approval page, acknowledgment page, contribution of authors, table of contents, lists of figures/tables/appendices/other, dedication [optional], preface [optional] of their thesis/dissertation to the Graduate School.	
<u>If thesis is required</u>: Within 6 weeks following final exam	Submit 2 library copies of thesis and two extra title pages to Graduate School. These must be acceptable reproductions of the thesis (unbound) on 25% rag, 16-lb. minimum-weight paper.	
	Provide all original approval signatures including yours as the author. Note: It is your responsibility to obtain all required signatures (except the Graduate School Dean's signature) on the thesis.	
	Submit your library copies in two manila clasp envelopes with a copy of the title page taped or glued to the front of each envelope.	
	Provide 2 extra title pages for the certification process. You are required to obtain all original signatures on your approval pages except for that of the Dean of the Graduate School. You will turn in your library copies missing only the Dean's signature. The Dean will sign the Approval Pages after you have turned in your library copies to the Graduate School.	
	Provide 1 bound copy of your thesis to your major professor, and 1 bound copy to the Department of Forest Science administrative office, in addition to the copies submitted to the Graduate School.	

[2] Committee consists of two members of the Graduate Faculty from the major department; one member of the Graduate Faculty from each declared minor department; and a Graduate Council Representative if you are writing a thesis. The major professor is one of the two members representing the major department.

NOTE: All committee members must be on the graduate faculty with appropriate authorization to serve on the student's committee.

[3] Must be registered for a minimum of 3 credits to schedule Program of Study meeting. See Graduate School Continuous Enrollment Policy for full details.

[4] Must be registered for a minimum of 3 credits to take final exam. See Graduate School Continuous Enrollment Policy for full details.

Department of Forest Science Oregon State University Doctoral Program Check-Off List		
When to do it	**What to do**	**Date Completed**
Before start of each term	Be advised about program by major professor; register	
Second or third term	Select committee members[5].	
Generally third term	Schedule a program of study meeting with committee members[6]	
By the end of one calendar year of enrollment (if one holds a Master's Degree)	File signed Program of Study with Graduate School File Forest Science competencies with Dept	
By the end of fifth term of enrollment (if one does not hold a Master's Degree).	File signed Program of Study with Graduate School File Forest Science competencies with Dept	
When majority of course work on one's program has been completed.	Pass departmental qualifying exam, comps. etc.[7]	
Before scheduling preliminary oral exam	Satisfied foreign language requirement (if applicable).	
At least one week before preliminary oral exam	Contact members of committee, including Graduate Council Representative, to arrange the date, time, and place for preliminary oral exam[8]	
	Schedule preliminary oral exam with Graduate School. Graduate students who wish to change membership of their committees will have their committee structure evaluated at the time they schedule the oral preliminary or final examination (final defense). If membership has changed, submit Restructure of Graduate Committee form to Graduate School.	
Typically 2-3 years following admission	Take Preliminary Oral Exam	
Typically, in term following preliminary oral exam	Submit thesis research proposal to doctoral committee.	
About 5 weeks before final oral exam	File Diploma Application with the Graduate School.	
Two weeks before final exam	Schedule and notify committee and major department of date, time and place of exam.[9]	
	Schedule exam with Graduate School.	
	Give each committee member an exam copy of thesis.	
	Submit required thesis pages to Graduate School for editing. Submit only the pretext pages (i.e. abstract, copyright [option], title page, approval page, acknowledgment page, contribution of authors, table of contents, lists of figures/tables/appendices/other, dedication [optional], preface [optional] of their thesis/dissertation to the Graduate School.	

[5] The committee consists of a minimum of five members of the graduate faculty, including two from the major department and a representative of the Graduate Council (Graduate School will provide student with a list of Graduate Council Representatives). If a minor is declared the committee must include a member from the minor department.

NOTE: All committee members must be on the graduate faculty with appropriate authorization to serve on the student's committee.

[6] Must be registered for a minimum of 3 credits to schedule program meeting. See Graduate School Continuous Enrollment Policy for full details.

[7] Must be registered for a minimum of 3 credits to take written departmental qualifying exam. See Graduate School Continuous Enrollment Policy for full details.

[8] Must be registered for a minimum of 3 credits to take preliminary oral exam. See Graduate School Continuous Enrollment Policy for full details.

[9] Must be registered for a minimum of 3 credits to take final oral exam. See Graduate School Continuous Enrollment Policy for full details.

When to do it	What to do	Date Completed
Within 6 weeks following final exam	Submit required copies of thesis to library, department, and Graduate School.	
	Submit dissertation archiving agreement form, archiving fee receipt, Graduate School Exit Survey, and Doctoral Survey Form to Graduate School.	
	Submit electronic copy of your thesis to Graduate School. (If you entered your degree program Fall 2000 or later, you are required to submit an electronic copy of your thesis.)	
	Provide 1 bound copy of your thesis to your major professor, and 1 bound copy to the Department of Forest Science administrative office, in addition to the copies submitted to the Graduate School.	

Summary of Courses Offered by the Department of Forest Science

Number	Title	Odd Years			Even Years			
		F	W	S	F	W	S	Credits
FS 405	Reading & Conference	X	X	X	X	X	X	TBA
FS 430/530	Biotech: Ag, Food & Research Issues	X			X			3
FS 432/532	Planning Agriforestry Projects			X			X	2
FS 453	Managed Forest and Wildlife Interactions			X			X	3
FS 491/591	Sustainable Forestry: Multiple Perspectives			X			X	3
FS 499	Selected Topics in Forest Science**	X	X	X	X	X	X	TBA
FS 499/699	ST/Bark Beetle Ecology and Management		X			X		1
FS 501	Research and Scholarship	X	X	X	X	X	X	TBA
FS 503	Thesis	X	X	X	X	X	X	TBA
FS 505	Reading & Conference	X	X	X	X	X	X	TBA
FS 505 (2)	R&C/Topics in Tree Physiology	X	X	X	X	X	X	TBA
FS 506	Projects	X	X	X	X	X	X	TBA
FS 507	SEM/Departmental Seminar	X	X	X	X	X	X	1
FS 520	Posing Researchable Questions	X			X			1
FS 521	Natural Resource Research Planning		X			X		2
FS 523	Natural Resources Data Analysis		X			X		4
FS 533	Fundamentals of Silviculture		X			X		3
FS 543	Advanced Silviculture		X					3
FS 545	Advanced Forest Community Ecology						X	4
FS 548	Biology of Invasive Plants	X						3
FS 553	Forest Wildlife Habitat Management		X			X		4
FS 561	Physiology of Woody Plants	X			X			3
FS 564	Interactions of Vegetation and Atmosphere	X			X			3
FS 599	Selected Topics in Forest Science**	X	X	X	X	X	X	TBA
FS 600X	Global Change Ecology			X			X	3
FS 601	Research and Scholarship	X	X	X	X	X	X	TBA
FS 603	Thesis	X	X	X	X	X	X	TBA
FS 605	Reading & Conference	X	X	X	X	X	X	TBA
FS 606	Projects	X	X	X	X	X	X	TBA
FS 606 (2)	PROJ/Teaching in Forest Science	X	X	X	X	X	X	TBA
FS 646	Adv. Forest Ecosystem Analysis	X			X			4
FS 699	Selected Topics in Forest Science**	X	X	X	X	X	X	TBA

**Topics vary but are of current interest in forest science. Schedule of topics available in September of each year. May be repeated for credit.

DESCRIPTION/EXPECTATIONS ACCORDING TO DISCIPLINARY AREAS OF SPECIALIZATION

Forest Ecology

The forest ecology option is designed for students who wish to further their understanding of the structure and function of forest ecosystems, the response of such systems to management and to natural disturbance, and their role in regional-and global-scale phenomena. The study of forest ecosystems includes study of both the biotic and abiotic components and processes. Thus, research in the Department includes work on plant and animal species interactions, plant physiological processes, microbial processes, soil chemistry, and physics, hydrology, climatology, forest-stream interactions, geomorphic processes, remote sensing, and landscape processes.

Most forest ecology research is conducted through collaborations and with the U.S. Forest Service Region 6 and Pacific Northwest Station (PNW) at sites throughout Oregon and Washington. A major joint project focuses on the H.J. Andrews Experimental Forest, which is located about 90 miles from the OSU campus and is the site of the Andrews LTER (Long-term Ecological Research) Program. Other cooperative research programs bring together OSU, the forest industry, and land management agencies to study problems in stand growth, reforestation and nursery management.

Students electing the Forest Ecology option select their courses from various departments on campus including Bioengineering, Botany and Plant Pathology, Crop and Soil Science, Rangeland Resources, Entomology, Fisheries and Wildlife, Geoscience, and Microbiology. Although there is no fixed set of courses for this option, the following are frequently selected and serve to illustrate the broad range of options available:

Course No.	Course Title	Credits
FS 553	Forest Wildlife Habitat Management	4
FS 545	Advanced Forest Community Ecology	4
FS 646	Ecosystems Analysis and Application	4
FS 548	Biology of Invasive Plants	3
BOT 616	Forest Pathology	3
CSS 535	Soil Physics	3
CSS 645	Soil Biology and Biochemistry	3
FW 661	Analysis of Animal Populations	5
FE 530	Watershed Processes	4
MB 548	Microbial Ecology	3
HORT 516	Advanced Plant Nutrition	4
GEO 582	Geomorphology of Forests and Streams	3

Forest Genetics

The forest genetics option is designed for students interested in developing research skills in various aspects of the genetics and breeding of forest trees. Basic studies include forest population genetics, molecular genetics, physiological genetics, and ecological genetics. Applied aspects include tree improvement, genetic engineering, and tissue culture. A forest geneticist must have a strong background in basic genetics, evolutionary biology, forest ecology, and tree physiology. Those specializing in tree improvement must have a clear understanding of statistical theory and application. Students interested in genetic engineering need a good knowledge of gene function, developmental biology, cell biology, and tissue culture.

Course No.	Course Title	Credits
M.S. Program		
FS 505 (3)	R&C/Current Literature in Forest Genetics	1
	3 courses from the University Genetics Program approved list	
Ph.D. Program		
FS 505 (3)	R&C/Current Literature in Forest Genetics	1
BB 550, 551	General Biochemistry	4,3
ST 511, ST 512, or	Methods of Data Analysis	4,4
ST 521, ST 522	Introduction to Mathematical Statistics	4,4
CSS 550	Plant Breeding**	4
BOT 625	Plant Molecular Genetics***	3
HORT 541	Plant Tissue Culture	4
HORT 513	Plant Genetic Engineering	3

**For students working in tree improvement area.
***For students in molecular or genetic engineering area.

Forest Tree Physiology

The forest tree physiology option is designed to improve a student's understanding of how forest tree species function physiologically and to develop background and skills in researching physiology problems related to forestry. The student is expected to explore one aspect of physiology in depth (e.g., water relations, growth hormones, root-growth dynamics, nitrogen metabolism) as well as obtain a general knowledge over a wide range of topics in physiology and related fields.

Course No.	Course Title	Credits
M.S. Program		
CSS 535	Physics of Soil Ecosystems	3
CSS 545	Geochemistry of Soil Ecosystems	4
Ph.D. Program		
CSS 535	Physics of Soil Ecosystems	3
CSS 545	Geochemistry of Soil Ecosystems	4
BB 550, 551, 552	General Biochemistry	4,3,3

Integrated Forest Protection (IFP)

As the importance of forests continue to grow in the Northwest, the complexity of management—including pest management—is also increasing. With the shift from mature forests already in place at the time of settlement to second-growth forests and plantations, opportunities for pest problems arise. Simple direct solutions to such problems are neither feasible nor appropriate, and integrated preventive

approaches designed to accommodate multiple resource values and ecological functions are becoming more important.

The curriculum is designed to provide interdisciplinary knowledge needed for developing solutions to the complex array of pests (insects, diseases, weeds, vertebrates), their interactions with abiotic factors (fire, wind, drought, pollution, and soil conditions), and management practices (harvesting, silviculture, recreational use).

M.S. students take the three courses listed below for all students, plus one course from each of four of the six disciplinary areas that follow. One course must be in Forest Ecology. At least one course must be in either Silviculture or Resource Management. FS 550 counts for only one discipline area, and only if taken for graduate credit.

Ph.D. students take the three courses below and one course from each of the six disciplinary areas.

Course No.	Course Title	Credits
All students		
FS/BOT 515	Forest Insect & Disease Management	5
FS 699	Selected Topics/IFP	1
Forest Entomology		
FS/BOT 515	Forest Insect & Disease Management	5
ENT 520	Insect Ecology	3
ENT 521	Insect-Plant Communities	3
ENT 542	Principles of Insect Pest Management Systems Design	4
ENT 543	Principles of Insect Pest Management Bio. Control	3
Forest Pathology		
FS/BOT 515	Forest Insect & Disease Management	5
BOT 552	Plant Disease Management	4
BOT 553	Plant Disease Diagnosis	3
BOT 616	Forest Pathology	3
Vegetation Management		
CSS 540	Weed Management	4
FS 548	Biology of Invasive Plants	3
CSS 660	Herbicide Science	4
Animal Damage Management		
FS 553	Forest Wildlife Habitat Management	4
FW 558	Management of Big Game Animals	4
FW 581	Wildlife Ecology	3
FW 661	Analysis of Animal Populations	5
Silviculture		
FOR 542	Silviculture: Reforestation	4
FOR 543	Silvicultural Practices	4
FS 543	Advanced Silviculture	3
FS 545	Advanced Forest Community Ecology	4
FS 599	Selected Topics in Forest Science	TBA
Resource Management		
BA 550	Organization Management	3
ECON 539	Public Policy Analysis	4
FOR 534	Economics of the Forest Resource	3
FOR 536	Harvest Scheduling Development and Analysis	3
FOR 544	Ecological Aspects of Park Management	3

FOR 558	Concepts of Forest Recreation Planning & Management	3
FOR 561	Forest Policy Analysis	3
FE 530	Watershed Processes	4
PS 572, 573	Public Administration	4,4
PS 575	Environmental Politics and Policy	4
RNG 577	Agroforestry	3

Forest Ecology

TOX 530	Chemical Behavior in the Environment	3
BOT 542	Plant Population Ecology	3
BOT 543	Plant Community Ecology	3
FW 536	Wildland Fire Science	3
FS 599	Selected Topics in Forest Science	TBA
FS 646	Advanced Forest Ecosystem Analysis	4
CSS 535	Physics of Soil Ecosystems	3
CSS 545	Geochemistry of Soil Ecosystems	4
CSS 575	Agricultural Management of Oregon Soil Resources	2

Silviculture

The silviculture option is designed for individuals who wish to study the application of biological and ecological principles to the management of forestecosystems. This is the most integrative and therefore, in terms of breadth of knowledge required, the most demanding of our programs. Silviculturists must have a strong foundation in ecology, depth in silviculture, and 9 to 12 hours of specialization in one of the following graduate programs: ForestEcology, Integrated Forest Protection, Forest Genetics, Forest Tree Physiology, Forest Resource Management (Forest Resources Department), or Forest Engineering (Forest Engineering Department).

Students electing the Silviculture option select their courses from various Departments on campus including Forest Resources, Agricultural Engineering, Botany, Crop and Soil Science, Entomology, Fisheries and Wildlife, Geology, Microbiology, and Rangeland Resources. Although there is no fixed set of courses for this option, the following are frequently selected and serve to illustrate the broad range of options available:

Course No.	Course Title	Credit
FS 543	Advanced Silviculture	3
FS 545	Advanced Community Ecology	4
FS 548	Biology of Invasive Plants	3
BOT 543	Plant Community Ecology	3
BOT 616	Forest Pathology	3
FE 530	Watershed Processes	4
FW 554	Fishery Biology	5
FW 661	Analysis of Animal Populations	4
GEO 582	Geomorphology of Forests and Streams	3
HORT 516	Advanced Plant Nutrition	4
RNG 577	Agroforestry	3
CSS 535	Physics of Soil Ecosystems	3
CSS 545	Geochemistry of Soil Ecosystems	4

Sustainable Forestry and Agroforestry (M.S. only)

Both agroforestry and sustainable forestry are integrative fields, relying on concepts and principles from the disciplines of biology, ecology, economics, sociology, and ethics. Although the components of these two specialty areas are present at OSU, they are not embodied in the curricula of any single educational unit of the University. Students select courses in consultation with their graduate committee from

various departments in the Colleges of Forestry, Agriculture, Science, Liberal Arts, and Business. A course of study in these specialty areas is constructed from existing course offerings, designed to fit individual student needs and meeting the approval of the student's Graduate Advisory Committee.

In addition to core courses, students choose classes from within each of two general areas of emphasis: (1) Biology, Ecology, and Production, and (2) Social Values, Policy, and Ethics.

Although there is no fixed set of courses for this option, the following are frequently selected and illustrate the broad range of options available.

Core Courses: FS/SOC/PHL 591, Sustainable Forestry (3 credits) is anintegrative course that exposes students to ethical, social and ecological issues of natural resource development. Students are challenged to look at systems of natural resource use and to design programs or policies that meet local, regional or global needs.

In addition, students specializing in Agroforestry take RNG 577, Agroforestry (3 credits), which explores the breadth of agroforestry systems worldwide.

(1) Biology, Ecology, and Production
Students will further their understanding of the structure and function of ecosystems,the responses of such systems to management and to natural and human-caused disturbances, and the role of such disturbance in local-, regional-, and global phenomena. Studies might include plant and animal species interactions, physical or biological processes in soil, water or air, remote sensing, or landscape-level processes in relation to human-imposed systems. In addition, this emphasis adds the dimension of production and management both for commodity and ecological processes–elements considered separately in other Forest Science specialty areas.

Examples of possible courses include the following (18-24 credits required):

Course No.	Course Title	Credit
FS 543	Advanced Silviculture	3
FS 545	Advanced Forest Community Ecology	4
FS 548	Biology of Invasive Plants	3
FS 553	Forest Wildlife Habitat Management	4
FS 646	Ecosystems Analysis and Application	4
BOT 515	Forest Insect and Disease Management	5
BOT 542	Plant Population Ecology	3
BOT 543	Plant Community Ecology	3
CSS 535	Physics of Soil Ecosystems	3
FE 530	Watershed Processes	4
FOR 543	Silviculture Practices	4
FW 581	Wildlife Ecology	3
GEO 544	Remote Sensing	3
GEO 546	Advanced Landscape Ecology	3
MB 548	Microbial Ecology	3
RNG 521	Wildland Restoration and Ecology	4
RNG 550	Landscape Ecology and Analysis	3
RNG 555	Riparian Ecology and Management	3
Z 593	Behavioral Ecology	5
Z 594	Community Ecology	5

Other courses may be substituted with approval of the student's academic committee.

(2) Social Values, Policy and Ethics
Students will further their understanding of the values and the cultural, economic, political, and social forces that affect forest systems and shape forestry and agroforestry policies. Within this area of emphasis, students take classes selected from two groups of courses: (a) Policy and Values, and (b) Economics, Politics, and Management.

At least two courses must be selected from each group (15 credits minimum).

(a) Policy and Values. Policy and Values classes focus on human values and world views about nature, the environment, and natural resources in western and non-western cultures, as well as on the institutional, cultural and ethical systems that embody such values. Examples of courses include the following (6-12 credits):

Course No.	Course Title	Credits
ANTH 581	Natural Resources and Community Values	3
ANTH 582	World Food & Cultural Implications of International Agricultural Development	3
COMM 542	Bargaining and Negotiation Process	3
GEO 521	Humans and Their Wildlife Environment	3
GEO 526	Third World Resource Development	3
HSTS 521	Technology and Change	3
HSTS 525	History of the Life Sciences	3
HST 581	Environmental History of the United States	3
PHL 540	Environmental Ethics	3
PHL 543	Worldviews and Environmental Values	3
SOC 566	International Development: Gender Issues	3
SOC 581	Society and Natural Resources	3
SOC 585	Consensus and Natural Resources	3

Other courses may be substituted with approval of the student's academic committee.

(b) Economics, Politics and Management. Economics, Politics and Management classes examine the economic, legal and political factors that affect land use and resource management in forest and agroforestry systems. Examples of courses include the following (6-12 credits):

Course No.	Course Title	Credits
AREC 551	Natural Resource Economics	3
AREC 532	Environmental Law	4
ECON 535	The Public Economy	4
FOR 532	Economics of Recreation Resources	4
FOR 534	Economics of the Forest Resource	3
FOR 561	Forest Policy Analysis	3
GEO 523	Land Use	3
GEO 551	Environmental Site Planning	3
PS 574	Natural Resource Policy and Bureaucratic Politics	4
PS 575	Environmental Politics and Policy	4
PS 576	Science and Politic	4

Other courses may be substituted with approval of the student's academic committee.

Thesis (6 units)

The thesis will consist of an original work that is comprised of: (1) a characterization of a forestry or agroforestry system, and (2) an ecological, economic, or social analysis or synthesis of that system, including methodology.

Master of Forestry (M.F.) in Silviculture

The M.F. in Silviculture program provides graduate-level preparation in the full range of disciplines essential for analyzing opportunities, solving problems, and making decisions in silviculture and forest resource management. Graduates from this program must demonstrate competence in the preparation of well-documented silvicultural prescriptions and in the supervision of prescription implementation. The program also provides the background for sustained career development in forest resource management.

This program is jointly administered by the Departments of Forest Science and Forest Resources. It is accredited by the Society of American Foresters and is designed for practicing foresters who wish to upgrade their professional skills and knowledge of silviculture and forest resource management. The program is aimed at career-oriented persons wishing to expand their ability to analyze silvicultural opportunities in the context of economic production objectives while maintaining sensitivity to physical, biological, social, and environmental forest resource values.

Each student will be assigned an on-the-ground forestry situation for which a silvicultural prescription must be prepared. Some of the information and data will be provided; some must be researched and developed by the student. The written prescription must be of professional quality and sufficient depth to earn seven (7) credits in the FOR506/FS506 "Projects" class at a grade of "B" or better. The written prescription will be graded after review by the student's committee and, if practical, by at least one practicing silviculturist selected from list of approved collaborators for this program.

Work Experience

Although most students in the M.F. program will have had sufficient relevant professional experience, some may require additional experience as prescribed by the graduate advisory committee. Such prescribed experience normally will be completed before the student enters the program. Usually, students will not be allowed to begin the second year of the program without acquiring the required professional forest management experience.

Program Requirements

Students take courses from each of five categories, as indicated below. Any undergraduate courses taken to meet the minimum background in forest resources management and forest biology (listed in Application section) are not counted toward the minimum requirement of 45 credits needed to complete the degree.

Course No.	Course Title	Credits
(1) Silviculture and Related Courses		
Required Course		
FOR 534	Economics of the Forest Resource	3
FS 543	Advanced Silviculture	3
Other Courses - At least two of the following courses or their equivalent:		
FE 530	Watershed Processes	4
FS 545	Advanced Forest Community Ecology	4

FS 646	Forest Ecosystem Analysis	4

(2) Forest Protection and Environmental Sciences
At least three of the following courses or their equivalent are required:

AREC 532	Environmental Law	4
FS/BOT 515	Forest Insect and Disease Management	5
CE 556	Environmental Assessment	3
CSS 540	Weed Management	5
FE 532	Forest Hydrology	3
FE 533	Forest Hydrology Lab	1
FS 548	Biology Invasive Plants	3
FS 553	Forest Wildlife Habitat Management	4
FW 581	Wildlife Ecology	3

(3) Analytical Skills
At least one course in the following subject areas of pertaining to similar topics:

BA 571	Information Management	3
FOR 525	Forest Modeling	3
FS 521	Natural Resource Research Planning	2
FS 523	Natural Resources Data Analysis	4
ST 511-513	Methods of Data Analysis	4,4,4
ST 521-522	Introduction to Mathematical Statistics	3,3
ST 531	Sampling Methods	3

(4) Business Management or Social Sciences
At least three courses (or courses pertaining to similar topics) in either of the two categories listed below are recommended. The Business Management Option (a) is designed for students with an interest in the legal, financialand management aspects of forest business enterprises.

The Social Sciences Option (b) is intended to serve students interested in issue management and policy development in the context of forest resource management.

Business Management Option

BA 531	Legal Aspects of Managing Technology and E-Business	3
BA 550	Organization Management	3
BA 565	Systems Thinking and Practice	4
CE 524	Contract and Specifications	3
	Harvest Scheduling Development and Analysis	3
FOR 537	Valuation of Non-market Resources	3
PSY 596	Industrial and Organizational Psychology	3

(b) Social Sciences Option

AREC 554	Rural Development Economics and Policy	3
FOR 551	History and Cultural Aspects of Recreation	3
FOR 561	Forest Policy Analysis	3
FOR 562	Natural Resource Policy and Law	3
FOR 593	Environmental Interpretation	4
HSTS 513	History of Science	3
HSTS 521	Technology and Change	3
PHL 540	Environmental Ethics	3
PHL 570	Philosophy of Science	3
PS 514	Interest Groups	4
PS 515	Politics and the Media	4
PS 524	Administrative Law	4
PS 572, 573	Public Administration	4,4
PS 574	Natural Resource Policy and Bureaucratic Politics	4
PS 575	Environmental Politics and Policy	4
PS 576	Science and Politics	4
SOC 556	Science and Technology in Social Context	3
SOC 575	Rural Sociology	3

(5) Communication and Integrative Skills
The following courses are required:

FS/FOR 507	Departmental Seminars	2 (1 credit each department)

A written silvicultural prescription for a forest management situation is required:

FS/FOR 506	Special Project - Silviculture Prescription	7

Additional Course Work-Optional

The student and advisory committee are encouraged to select additional courses from departments within the College of Forestry or elsewhere in the University to strengthen the student's knowledge in fields related to the practice of silviculture.

Minimum Educational Background for M.F. in Silviculture

- A Bachelor's in forestry from an institution accredited by the Society of American Foresters (SAF), or
- A Bachelor's or higher degree in a field closely allied to forestry with course work in the following areas sufficient tomeet the SAF's standards for the "first professional degree in forestry."
- Basic science and mathematics: chemistry, biology, mathematics, statistics, and computer applications. The objective is a background that will enable students to complete future courses.
- Liberal arts: oral and written communication, literature, economics, sociology, philosophy, history, and contemporary perspectives. This background should provide a broad foundation for developing managerial skills and to place forestry in a social context.
- Forestry: forest biology and ecology, forest measurements, forest management, forest policy and administration, and related natural resource courses. The objective is to ensure that students have course work equivalent to a B.S. in Forestry from a SAF-accredited institution.

Master of Forestry (M.F.) in Forest Biology

Management of natural resources is an increasingly complex and technical undertaking. In some cases, breadth or depth of specialization beyond the B.S. degree is required or is highly desirable in entry level professional forestry positions or for advancement in non-research professional forestry positions.

The M.F. in Forest Biology program emphasizes graduate course work in one of five areas of emphasis in forest biology, with supporting work in another area. The program can be completed in 12 months, but it may be extended in accordance with personal needs and the policies of the OSU Graduate School. The program allows professionals in forestry to enhance their expertise by accomplishing graduate work in one of five areas of forest biology:

Forest Wildlife Management
Tree Improvement
Silviculture
Regeneration
Vegetation Management

The requirements for this degree are described below:

- Complete 45 credits from the approved curriculum.
- Select an area of emphasis and complete required course work within that area.
- In an oral exam before the student's committee, present and defend a paper on an approved topic within the student's area of emphasis. The paper will normally be an intensive library review of a

particular subject, though other approaches, such as a detailed report based on work performed prior to enrollment, may be suitable if authorized by the student's committee.

- The paper and the performance during the oral exam should demonstrate an understanding of broad aspects of forest science and its relevance to contemporary forest resources management. (See section on competence in integration.)

M.F. in Biology: Program of Study and Course Requirements

Thirty of the required 45 credits should be forest biology classes. Other courses from the department or University, orgraduate-level courses taken prior to enrollment, may be added or substituted if approved by the Department Head and the student's committee.

Course No.	Course Title	Credits
Required Courses		
The following courses are required for all students:		
FS 520	Posing Researchable Questions	1
FS 507	Departmental Seminar	2
FS 506	Project (paper)	4
Required Courses: Areas of Emphasis		
Students choose an area of emphasis and take all courses listed in category		
(a) Forest Wildlife Management option		
FS 553	Forest Wildlife Habitat Management	4
FS 543	Advanced Silviculture	3
FS 545	Advanced Forest Community Ecology	4
(b) Tree Improvement option		
FS 543	Advanced Silviculture	3
(c) Silviculture option		
FS 543	Advanced Silviculture	3
FS 545	Advanced Forest Community Ecology	4
FS 646	Forest Ecosystems Analysis and Application	4
FS 548	Biology of Invasive Plants	3
(d) Regeneration option		
FS 543	Advanced Silviculture	3
FS 545	Advanced Forest Community Ecology	4
FS 548	Biology of Invasive Plants	3
(e) Vegetation Management option		
FS 548	Biology of Invasive Plants	2
FS 543	Advanced Silviculture	3
FS 545	Advanced Forest Community Ecology	4

Supporting Courses - 15 credits

These courses will normally be grouped in a discipline area that provides students with needed tools for their particular careers. The exact selection of courses will be approved by the student's committee. Potential discipline areas include:

- Computer Science
- Statistics/biometry
- Business and management
- Forest policy and planning
- Economics
- Cooperative extension
- Resource politics

Doctor of Philosophy (Ph.D.) with a Specialization in Silviculture and Harvesting

The Ph.D. in Silviculture and Harvesting is offered through the Department of Forest Science and jointly administered with the Department of Forest Engineering. The objectives of the program are to:

- Integrate fundamental knowledge in silviculture and harvesting of forest crops;
- Jointly analyze timber production and harvesting systems;
- Conduct research on joint silvicultureand harvesting problems;
- Provide necessary training so that graduates can teach these subjects at the university level.

The purpose of this joint degree is not simply to add silviculture onto an engineering degree or to make an engineer of a silviculturist. Rather, a student with a background in either silviculture or forest engineering would acquire expertise enabling them to operate professionally between the two disciplines. Background in both disciplines is necessary, but the graduate would not be expected to be able to lay out roads, for example, or to know forest biology in depth. Instead, the systems approach, integrating both silvicultural considerations and harvesting technology, will be stressed.

Program of Study

The Ph.D. in Silviculture and Harvesting, allows a student to develop expertise in both silviculture and harvesting systems. Students and their committees are responsible for formulating a program of study using the courses below as a core. Some students may be required to complete basic classes before embarking on the course work listed in the core curriculum. Other courses appropriate for each student may be required by the student's committee. The nature of such courses will depend upon the student's specialty within the degree.

Core Curriculum

Course No.	Title	Credits
Forest Science		
FS 521	Natural Resources Research Planning	2
FS 543	Advanced Silviculture	3
FS 545	Advanced Forest Community Ecology	4
FS 646	Ecosystems Analysis and Application	4
Forest Management		
FOR 524	Forest Biometrics	3
FOR 534	Economics of the Forest Resource	3

FOR 542	Silviculture Reforestation	4

Botany

Forest Engineering

FE 532*, 533*	Forest Hydrology and Lab	3,1
FE 552*	Forest Transportation Systems	4
FE 540	Forest Operations Analysis	4
FE 541	Production Planning	3

Soil Science

CSS 535	Physics of Soil Ecosystems	3
or CSS 545	Geochemistry of Soil Ecosystems	4

Statistics

ST 551	Statistical Methods	4
ST 552	Statistical Methods	4
ST 553	Statistical Methods	4

Industrial Engineering

Seminar (taken in at least 2 departments)

Thesis 36

Broadening Requirement 8

This requirement can be met by successfully completing 6 credits (may or may not earn graduate credit) from the following courses:

PHL 521	Mathematical Logic	3
PHL 570	Philosophy of Science	3
PS 331	State Government and Politics	3
PS 574	Natural Resource Policy and Bureaucratic Policies	4
PS 575	Environmental Politics and Policy	4

GRADUATE FACULTY WHO SERVE AS MAJOR PROFESSORS

Fax 541-737-1393
Area Code (541)

Name	Email	Phone	Room	Area(s) of Speciality
Adams, W. Thomas	w.t.adams@oregonstate.edu	737-6583	RH 321B	Departmental Administration/Genetics
Betts, Matthew	matthew betts@oregonstate.edu	737-3841	RH 216	Forest Wildlilfe Landscape Ecology
Bishaw, Badege	badege.bishaw@oregonstate.edu	737-9495		Agroforestry, Social Forestry, Silviculture, International Forestry
Bond, Barbara J.	barbara.bond@oregonstate.edua	737-6110	RH 330	Forest Tree Physiology
Cazares-Gonzalez, Efren	efren.cazares@oregonstate.edu	737-8593	FSL 009	Fungal Ecology and Fungal Taxonomy
Cohen, Warren B.	warren.cohen@oregonstate.edu	750-7322	FSL 362	Remote Sensing; Landscape Ecology
Ganio, Lisa M.	lisa.ganio@oregonstate.edu	737-6577	RH 201J	Ecological study and experimental design; application of statistical methods to biologial and ecological problems ; statistical education for non-statistical researchers; research information and scientific databases.
Gray, Andrew	agray01@fs.fed.us	750-7252	FSL 297D	Forest Ecology
Hansen, Everett M.	hansene@science.oregonstate.edu	737-5243	Cord 1084	Forest Pathology
Harmon, Mark E.	mark.harmon@oregonstate.edu	737-8455	RH210	Forest Ecology
Hibbs, David E.	david.hibbs@oregonstate.edu	737-6077	RH 301K	Community Ecology; Silviculture
Howe, Glenn T.	glenn.howe@oregonstate.edu	737-9001	RH 334	Quantitative, physiological, ecological and molecular genetics of forest trees
Jones, Julia Allen	jonesj@geo.oregonstate.edu	737-1224 750-7332	Geo/FSL 363	Spatial Variability in Ecology; Soils; Hydrologic Responses to Disturbance
Krankina, Olga	olga.krankina@oregonstate.edu	737-1780	RH 202	Forest Management; Forest Ecology;; Woody Detritus; Carbon Cycling; Russian Forestry; Non-timber Forest Products
Lajtha, Kate	lajthak@science.oregonstate.edu	737-5674	2080 Cordley	Plant Physiology
Law, Beverly	bev.law@oregonstate.edu	737-6111	RH 328	Ecophysiology, Ecosystem Processes
Lachenbruch, Barbara L.	barbara.gartner@oregonstate.edu	737-4213	RH 118	Wood Quality; Physiological Ecology
Luoma, Dan	daniel.luoma@oregonstate.edu	737-8595	FSL 033	Plant Community and Mycorrhizal Ecology
Maguire, Douglas A.	doug.maguire@oregonstate.edu	737-4215	Pvy 209	Silviculture; Forest Biometrics
Meinzer, Frederick C.	rick.meinzer@oregonstate.edu	758-7798	FSL 314	Plant physiology, plant-water relations, photosynthetic gas exchange, stomatal physiology, stable isotopes in ecological research, micrometeorology
Myrold, David D.	david.myrold@.oregonstate.edu	737-5737	ALS 3127	Soil Microbiology/Forest Soils
Neilson, Ronald P.	neilsonr@fsl.oregonstate.edu	750-7303	FSL 250	Biosphere modeling
O'Connell, Kari	kari.oconnell@oregonstate.edu	750-7324	FSL 336	Carbon and Vegetation Dynamics in PW Forest Systemsx
Ohmann, Janet	janet.ohmann@oregonstate.edu	750-7487	FSL 312	Forest Community and Landscape Ecology
Perakis, Steven	steven.perakis@oregonstate.edu	758-8786	FSL 164	Ecosystem Biogeochemistry
Puettmann, Klaus	klaus.puettmann@oregonstate.edu	737-8974	RH 218	Silviculture; Forest Ecology
Pyke, David A.	david_a_pyke@usgs.gov	750-7334	FSL 166	Plant Population Ecology
Ripple, William J.	bill.ripple@oregonstate.edu	737-3056	Pvy 011	Remote Sensing/GIS; Landscape Ecology
Rose, Robert W.	robin.rose@oregonstate.edu	737-6580	RH 308	Forest Regeneration; Nursery Management
Ross, Darrell W.	darrell.ross@oregonstate.edu	737-6566	RH 310	Integrated Forest Protection
Salwasser, Hal		737-1585	Peavy 150	Dean, College of Forestry, Wildlife and natural resources convervation Policy and ecosystem management
Shaw, David	david.shaw@oregonstate.edu	737-2845	RH 218	Forest Health

Smith, Jane	jane.smith@oregonstate.edu	750-7387	FSL 010	
Spies, Thomas A.	tom.spies@oregonstate.edu	750-7354	FSL 360	Forest Ecology
St. Clair, John B.	brad.stclair@oregonstate.edu	750-7294	FSL 170	Genetics
Strauss, Steven H.	steve.strauss@oregonstate.edu	737-6578	RH 338	Forest Genetics; Biotechnology
Swanson, Frederick J.	fred.swanson@oregonstate.edu	750-7355	FSL 344	Geomorphology; Ecosystem Disturbance
Turner, David P.	david.turner@oregonstate.edu	737-5043	RH 318	Biogeochemistry

Individuals may be nominated to the Forest Science graduate faculty throughout the year by contacting the Department Head.
Graduate faculty must possess a doctorate degree at the time of nomination.

Continuous Enrollment and Leave of Absence

Minimum Registration

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

Graduate students who have successfully completed all course and noncourse requirements in accordance with diploma deadlines (see the Graduate School website) are not required to register during the subsequent term.

Nonthesis master's degree students who complete all degree requirements during a term for which they are registered will not be required to register for the subsequent term.

Doctoral and thesis master's students who fail to meet all deadlines and complete all course and noncourse requirements during the term will be required to register for a minimum of three graduate credits during the subsequent term. However, only if library copies of the thesis have been submitted to the Graduate School within the first two weeks of the subsequent term and the thesis is the only outstanding requirement remaining for certification of the student's graduate degree may an exception to this rule be considered.

Graduate students who do not plan to make use of university facilities or faculty time during summer session are not required to register during the summer session and do not need to submit a Leave of Absence/Intent to Resume Graduate Study form. In such instances, summer session will not be counted within allowed Leave of Absence limits (see section II.C.). However, if students do plan to utilize facilities or faculty time during summer session, they must register for a minimum of 3 graduate credits.

It should be noted that graduate assistantship eligibility requires enrollment levels that supercede those contained in this Continuous Enrollment Policy. Various agencies and offices maintain their own registration requirements that also may exceed those specified by this Continuous Enrollment Policy (e.g., those of the Veterans Administration, Immigration and Naturalization Service for international students, and those required for federal financial aid programs.) Therefore, it is the student's responsibility to register for the appropriate number of credits that may be required for funding eligibility and/or compliance as outlined by specific agency regulations under which they are governed.

Leave of Absence

On-leave status is available to students who need to suspend their program of study for good cause. Students who desire a leave of absence will work with their major professor, program administrator, and the Graduate School to arrange authorized leave. Graduate programs that are designed such that

the offering of courses and/or the conduct of research/scholarly work are not on a continuous term-to-term basis will work with the Graduate School to arrange planned leave. Students understand that while on leave they will not use university resources. Graduate Faculty members are students' most important resource at the university and will work closely with graduate students to ensure timely completion of academic goals, understanding of the Continuous Graduate Enrollment Policy, and that graduate students enroll each term other than when they are on authorized leave. The Graduate School will assist graduate students and Graduate Faculty members with administrative procedures related to the Continuous Graduate Enrollment Policy. The Graduate School recognizes the diverse circumstances and unpredictability of graduate students' lives and will work in partnership with the graduate community in arranging leaves and responding to unanticipated situations.

A graduate student intending to resume active graduate student status following interruption of his or her study program for one or more terms, excluding summer session, must apply for Regular or Planned Leave of Absence to maintain graduate student standing in his or her degree program and to avoid registration for 3 graduate credits for each term of unauthorized break in registration (See Section IV below). Leave of Absence/Intent to Resume Graduate Study Forms must be received by the Graduate School at least 15 working days prior to the first day of the term involved. The time the student spends in approved on-leave status will be included in any time limits relevant to the degree (See Sections C.1. and C.2. below). Students in on-leave status may not a) use any university facilities, b) make demands upon faculty time, c) receive a fellowship or financial aid, or d) take course work of any kind at Oregon State University.

A. Eligibility

Only graduate students in good standing are eligible for Leave of Absence.

B. Leave of Absence Categories

Regular. Regular Leave of Absence is granted in cases where the student demonstrates good cause (e.g. illness, temporary departure from the university for employment, family issues, financial need, personal circumstances). The student must indicate reason for on-leave status.

Planned. Planned Leave of Absence is granted to students for whom the design of their academic program is such that the offering of courses and/or the conduct of research/scholarly work are not on a continuous term-to-term basis. Planned Leave of Absence is set by the program with the approval of the Graduate School. (For a current list of Planned Leaves, consult the Graduate School at 737-4881.) Planned Leave of Absence includes students enrolled in summer-only programs and graduate students in other programs that have been pre-approved by the Graduate School for Planned Leave of Absence. Summer-only students and other students who qualify for Planned Leave of Absence must:

a. be in good standing,
b. submit the Leave of Absence/Intent to Resume Graduate Status Form indicating each term for which leave is requested, and
c. complete all degree requirements within the time limits established in the *Graduate Catalog*.

Requests for multiple terms of Leave may be submitted at one time.

C. Limits

1. **Regular Leave of Absence** is granted for a specified time period that may not exceed three terms, excluding summer session. In no case may regular on-leave status exceed the maximum listed below throughout the student's entire degree program.

a. **Master's degree**. Master's degree students, except for summer-only students, may request a maximum of three academic terms of regular on-leave status during the course of study for the degree. The time spent in approved on-leave status will be included in the seven-year time limit for completing all requirements to the master's degree.

b. **Doctoral degree**. Doctoral degree students may apply for a maximum of three academic terms of regular on-leave status prior to advancement to candidacy, and they may apply for a maximum of three academic terms of on-leave status after advancement to candidacy. The time spent in approved on-leave status will be included in the maximum five years that may elapse between the preliminary oral examination and the final oral examination.

2. **Planned Leave of Absence** is available for a maximum of nine terms, excluding summer session, to students enrolled in programs for which Planned Leave has been approved by the Graduate School. However, time spent in planned on-leave status will be included in all time limits pertaining to the student's degree program.

D. Approval

Approval of the major professor, department/program chair, and graduate dean are required.

Graduate Student Exit Checklist

Check off as applicable and return to Richardson 321 prior to your departure.

Date Completed

Upon completion of program:

_____ Submit electronic copy of thesis/dissertation to department

_____ Make appointment for exit interview upon completion of degree program

In addition, upon completion of program and/or absence from program:

_____ Complete “Leave of Absence” form and submit to Graduate School

_____ Notify department of planned date to resume graduate program

_____ Submit letter of resignation if on a Graduate Research Assistantship

_____ Notify department upon vacating student office

_____ Communicate with department personnel regarding forwarding address

_____ Return departmental keys and/or college keys