

School of Forest Resources Graduate Studies Handbook



**College of Agricultural Sciences
The Pennsylvania State University
Revised January 2009**

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SECTION I. GENERAL POLICIES

A. Degree Programs

Graduate studies in the School of Forest Resources have emphasis in three subject matter areas – forest science, wildlife and fisheries science, and wood products. Graduate degrees conferred are:

Forest Resources—Ph.D., M.S., and M.F.R. (includes forest science and wood products);
Wildlife and Fisheries Science—Ph.D., M.S., M.F.R.

Students in each of the three areas have their program emphasis identified by the courses taken and the thesis title. In addition, a graduate option in Watershed Stewardship is available to graduate students in all programs.

The objectives for students enrolled in Master of Science and Doctor of Philosophy degree programs are to gain proficiency in research, education, and scientific technology in forest science, wildlife and fisheries science, or wood products, and in allied basic science disciplines. These degrees carry a full thesis requirement.

The Master of Forest Resources is a professional degree program for training students in applying a variety of technical skills towards interpreting and resolving forest resource-related problems. It emphasizes analysis, synthesis, and applications of knowledge, as compared to the traditional research goals of M.S. and Ph.D. programs. The M.F.R. requires a technical paper instead of a research thesis.

Opportunities to specialize within these broad degree programs are dependent primarily on available courses, within or outside of the School, and the research interests of the faculty (Appendix A). In selecting a minor, which is optional, the responsible department must be consulted for approval and establishment of requirements. A member from the department of the minor should be a member of the student’s committee.

A thesis is required for the M.S. and Ph.D. degrees and an original paper is required for the M.F.R. degree. Degree requirements are outlined under the detailed descriptions of the degree programs.

B. Responsibilities of the Student, Thesis Advisor, and Student’s Committee

Students are expected to assume responsibility for knowing the regulations and requirements of the Graduate School and the School of Forest Resources as described in (Web-based):

1. The Pennsylvania State University bulletin “Graduate Degree Programs” (current edition)
2. “Thesis Guide” (Graduate School Publication)

3. This publication (“School of Forest Resources Graduate Studies Handbook”) and other policies of the School of Forest Resources as published from time to time.

Exceptions shall not be made when students plead ignorance of requirements, or claim advisors or other officers of the Graduate School did not inform them about such.

Thesis advisors and graduate committees have a responsibility for judicious timing of events to avoid prolonging degree programs. For example, in the initial months of residence, students may become preoccupied with course work. At this time, a student should also be outlining the entire program, choosing a thesis topic, and drawing up research plans. Delays may result in time added to programs or under-accomplishment of thesis research. The leadership efforts of thesis advisors and committee members are needed to forestall such delays.

Responsibilities of thesis advisors and committee members are detailed in later sections of this handbook and in Graduate School publications. **It is the responsibility of the advisor to arrange exams in consultation with the Assistant Director for Graduate Studies and the Graduate Staff Assistant. Students are not to be charged by the advisor with arranging their own exams.**

SECTION II. ADMISSION REQUIREMENTS AND PROCEDURES

A. Application Procedures

1. Requests for admission to the Graduate School should be made via the Web-based application form. The address of the Graduate School is:

Office of Graduate Admissions
114 Kern Building
The Pennsylvania State University
University Park, PA 16802

2. Inquiries about graduate programs in the School of Forest Resources should be directed to:

Assistant Director for Graduate Studies
School of Forest Resources
Forest Resources Building
The Pennsylvania State University
University Park, PA 16802
wlm@psu.edu

All of the general admission information is available on the Internet by links from the www.sfr.cas.psu.edu URL. The Assistant Director will handle special questions. If a prospective student has questions about an area of specialization, contact should be made with an individual faculty member in that discipline. The following areas of specialization are available:

Forest Science:

Forest Resources Management—Quantitative forest management systems, economics, biometrics, policy, remote sensing and spatial analysis with geographic information systems, forest recreation, watershed management and stewardship, urban forestry, and human dimensions of natural resources management.

Forest Biology—Genetics and breeding, ecology and landscape ecology, silviculture, revegetation of disturbed lands, reproduction of hardwoods, and plantation systems.

Environmental Concerns—Acid precipitation effects, forest microclimatology and hydrology, municipal wastewater and sludge effects, reclamation of mined lands, urban forestry, water yield and quality, and climate change impacts.

Wildlife and Fisheries Science:

Habitat evaluation, ecology and management of game and non-game wildlife, animal damage control, urban wildlife, wildlife responses to altered ecosystems, conservation biology, fish systematics, fisheries management, ichthyology, fish behavior and ecology,

freshwater ecology, aquaculture, landscape ecology, and terrestrial and wetland ecosystems.

Wood Products:

Wood anatomy and ultrastructure, wood composite properties, energy and chemical conversions, wood degradation and preservation, bark utilization and chemicals, processing and manufacturing systems, industrial production management, composite wood products, pulp and paper products, chemical and mechanical properties, and wood products marketing.

Applications should be submitted prior to January 31 for beginning a program in a summer or fall semester. For the best opportunity to obtain financial assistance, the complete application should be received by January 5. A statement describing the applicant's abilities and achievements, specific graduate goals, and career interests is required. An original report of Graduate Record Examination (GRE) scores must be supplied. Three references are required from persons familiar with the applicant's academic qualifications or work experiences. International students whose native language is not English must submit an original report of scores of the Test of English as a Foreign Language (TOEFL). The minimum acceptable score for the TOEFL is 550 for the paper-based test, 213 for the computer-based test, or a total score of 80 with a 20 on the speaking section for the Internet-based test is required for admission.

Continuing within Penn State University from a master's degree to a Ph.D. degree is different from an external application, but the School of Forest Resources still requires faculty review. This review is based on transcripts, a statement of purpose, a letter from the advisor for the master's degree, and a letter of endorsement from one other faculty member who is not the prospective advisor. These are submitted to the Assistant Director for Graduate Studies.

B. Admission Criteria

Minimum admission requirements for all master degrees are an undergraduate cumulative grade point average of 2.75 and junior-senior average of 3.0, based on a maximum 4.0 system. Because of the diversity of programs in the School, professional preparation may vary considerably. In general, the following are required:

<u>Subject Matter Area</u>	<u>Course Credits</u>
Chemistry and/or physics	8
Calculus, statistics, computer science	12
Biology, botany, zoology	8
Writing and speaking	12
Economics, social sciences, humanities	12
Forest science, wildlife and fisheries science, wood products	18

Recipients of baccalaureate degrees from forest science, wildlife and fisheries science, or wood products programs normally will fulfill the course subject areas requirements. Students with undergraduate degrees not in these disciplines are invited to apply, but may be admitted on a

“provisional” status pending make-up of deficiencies. The faculty member who agrees to serve as advisor of a provisional student will stipulate conditions to be met for transfer from provisional status to a graduate degree program, which must be fulfilled within one year. Final decision on course deficiencies rests with the student’s graduate committee. Provisional status will not be used for admitting students who have substandard grades.

The best-qualified applicants are accepted within the limits of available openings in the School of Forest Resources graduate program. Exceptions to the admission criteria may be granted for applicants with special backgrounds, abilities, and interests. However, deficiencies must be fulfilled early in the program. Applicants with a large number of deficiencies may be advised to enroll in a second bachelor’s program in forest science, wildlife and fisheries science, or wood products. Admission to the Ph.D. program requires evidence of research ability; e.g., a master’s degree thesis, paper, or equivalent publication and a grade point average of 3.3 or higher in graduate studies work, exclusive of thesis and special problem courses. Baccalaureate degree students graduating from an honors program with a required thesis, or who have authored a refereed publication, may be considered for admittance without a master’s degree. Admission to all graduate programs requires concurrence of a graduate faculty member to serve as academic advisor, so potential advisors should be contacted prior to applying for admission.

C. Admission Procedures

Evaluation of an applicant for graduate study in the School is done by faculty who are potential advisors doing research and teaching related to the applicant’s area of interest. They evaluate (1) previous course work, (2) academic performance (grade point average), (3) GRE and TOEFL scores, (4) course deficiencies, (5) personal vita, (6) statement of goals and interests, and (7) letters of recommendation. Recommendation for acceptance or rejection of an applicant is made to the Graduate School by the School’s Assistant Director for Graduate Studies in consultation with the reviewing faculty members. A favorable (majority) vote and a willing advisor are required for acceptance. A Faculty Evaluation Form is used, as shown in Appendix B.

D. Graduate Assistantships and Fellowships

Financial assistance may be available to selected, well-qualified graduate students who are supervised by faculty in the School and are working toward any degree, especially the M.S. and Ph.D. The three principal types of financial assistance are fellowships, assistantships, and work study. Fellowships are awarded through the Graduate School and require no service to the University during the first year. Only students with a grade point average above 3.5 are considered for a fellowship, and other indicators must be similarly favorable. Students on work study are paid at an hourly rate and are assigned to a faculty member to carry out specific tasks.

Minority Graduate Scholar Fellowships through the Graduate School are available to U.S. citizens who are members of minority groups; these are based on promise as a scholar and on financial need.

All decisions regarding assistantships are made by individual faculty members, but assistantships are of two types. One type is funded from outside grants or contracts, in which case the

supervising faculty member is entirely responsible for determining service to be performed. The other type is supported through general fund allocations or other general-use funds (e.g., endowed fellowships). In addition to research work for the faculty advisor, the latter type of assistantship carries the responsibility for one semester of graduate teaching assistance per year. Teaching assistance for specific courses will be assigned by the Assistant Director for Graduate Studies in consultation with the Director and undergraduate program chairs. Preference is given to assigning the student's teaching responsibilities in courses taught by the student's advisor. The base level for initial assistantships is Grade 11, with Ph.D. students advancing the Grade 12 upon successful completion of the candidacy exam. Individual faculty using grant or contract resources may offer assistantships at higher levels.

Each tenure-track research faculty member in the School of Forest Resources at the University Park campus is allocated a half-time academic-year general graduate assistantship to assign to a student under his/her advisement. Faculty may assign assistantships to students in any graduate program in which they are entitled to advise students. A student receiving such an assistantship must have been admitted as a regular student (not provisional) through the normal programmatic admission process. The student must be in good standing and be making normal progress toward his/her graduation. The assistantship allocation may be split as two quarter-time assistantships within the limits of availability for tuition grants-in-aid. General assistantships are usually not transferable from one faculty member to another except on a co-advising basis. To allocate their assistantship, faculty members must notify both the School Director and Assistant Director for Graduate Studies concerning the student(s) they have selected. The Assistant Director will then send the official letter of offer. The faculty member may make a verbal offer of an assistantship to the selected student as early as desired, but no later than March 1. An assistantship that has not been assigned by the faculty member by March 15 reverts to the School's general assistantship pool. If a student offered an assistantship declines an offer after March 1 but before April 15, the faculty member has until May 15 to offer the assistantship to another student and to receive an acceptance from the student. If the assistantship has not been assigned and accepted by May 15, the funds revert back to the School's general budget and may be used for procuring wage payroll assistance in teaching of courses where needs are not otherwise met. General assistantships are mostly offered on an academic-year basis. Summer support may or may not be provided by the faculty member from other research project funds.

A half-time assistant receives a stipend set at Grade 11 for master's degree students and beginning Ph.D. students; the stipend is increased to Grade 12 in the semester after a Ph.D. student has passed the candidacy examination. Stipends above Grades 11 or 12 may be offered with fellowship or external funds to attract exceptional applicants. A grant-in-aid covers tuition. Half-time assistants ordinarily carry 8 to 11 credits per semester and contribute 20 hours per week toward research, teaching, or extension activities. Fellowships provide similar stipends and recipients may carry full academic loads.

Federal, state, and local taxes are withheld from paychecks of assistants according to various regulations and University policy. The School will cooperate with assistants in supplying factual information concerning assistantship duties needed for income tax returns.

SECTION III: MASTER OF SCIENCE DEGREE

A. The M.S. Degree

This is a research-oriented degree. Persons undertaking it may terminate their formal education with the degree or proceed for the Ph.D. degree. Whether terminal or doctoral oriented, objectives of M.S. studies are similar: (1) to enhance the understanding of an area of science beyond the baccalaureate level and (2) to attain scientific research skills. M.S. candidates are considered novice researchers and commonly require considerable guidance in choosing and executing their thesis research projects. However, upon completion of the M.S. the student should have developed some capacity for independent research, which is considered in assessing his or her ability to pursue a Ph.D. program.

B. Course and Credit Requirements for the M.S. Degree

The student is responsible for consulting with the advisor before each registration period. Prior to the first registration, the student and advisor will discuss the choice of courses for that semester and subsequent semesters. Prior to the end of the first semester, the student and advisor shall develop a Graduate Academic Plan (Appendix E) for approval by the student's committee. The Academic Plan may be modified with approval of the committee during any registration or drop/add period. The plan will include alternative courses in case the student is unable to obtain a first choice of some courses. The minimum Graduate School requirements and specific School requirements are:

1. Admission deficiencies, if any, must be removed to the satisfaction of the student's committee.
2. A minimum of 30 graduate (400-, 500-, 600-level) credits is required, of which at least 20 credits must be earned at an established graduate campus of the University and will include the minimum credits specified in items 3 through 9. Courses taken to overcome deficiencies are excluded.
3. At least 12 credits in 400- and 500- level courses that are appropriate to the student's field of interest, excluding the statistics requirement as below, are required.
4. At least 6 credits of 400- or 500-level courses are required in courses that cover topics such as analysis-of-variance, correlation, regression, and design of experiments, and are approved by the student's committee.
5. Optionally, at least 6 credits of 400- or 500-level courses are taken in a minor or general studies area, according to the minor department. Seminar courses are excluded, except where specifically allowed by the minor department.
6. Two graduate seminar or colloquium courses (1 credit each) are required in which oral presentations are made by the student. At least one credit of this requirement must be met in a regularly scheduled FOR 590 or WFS 590 course. A scholarly presentation to a professional group or supervised experience in college teaching may be substituted for a classroom presentation in obtaining credit for one credit of this requirement. In this case, the student's advisor in consultation with the Assistant Director for Graduate Studies will determine the acceptability and grade to be recorded as a 590 credit. The School provides modest support (\$300) for students to

attend professional meetings to give scientific presentations on their research (see Appendix F). There is further flexibility in this requirement through substitution of other graduate seminar courses or graduate level courses focusing on methods and practice in scientific communication, but requiring prior approval of the School of Forest Resources Graduate Studies Committee through the Assistant Director for Graduate Studies. Note that the School of Forest Resources Graduate Studies Committee is appointed by the Director, and is not to be confused with the student's guidance committee.

7. A thesis directly relevant to the major field, of at least 6 credits and no more than 15 credits, is required (courses 600 and 610, thesis research). Only 6 of the 600 thesis credits may carry a quality letter grade; additional 600 thesis credits must carry an "R" grade for research.
8. At least 18 credits of the total M.S. program must consist of 500- or 600-level course series, and only 6 thesis research credits (600) can count in this regard.
9. A final examination (defense of thesis) is required.

C. Definitions of Major and Minor

1. Major: The course work for the major field shall be chosen to meet the student's primary educational objectives, i.e., accomplishment of thesis research, mastery of discipline subject matter, and preparation for a career. Courses at the 400 or 500 level taken in forest science, wildlife and fisheries science, wood products, and other departments may be designated as part of the major if they conform to the objectives. The program must be coherent, i.e., a related series of courses. The choice of courses in the major study area shall be approved by the student's committee in consultation with the student. The thesis advisor shall be responsible for the semester-by-semester direction of the student's academic studies, but review by the student's committee should take place as described in Section III.D.5 and III.E. Students expecting to continue for the Ph.D. after the M.S. should acquaint themselves with the admission and graduation requirements for the Ph.D.
2. Optional Minor: When a minor is elected, it consists of integrated or articulated work in one field related to, but different from, the major program. Minor requirements are governed by responsible departments or discipline areas of the University. If a minor is elected, a faculty member representing the minor will serve on the student's committee if required by the minor department. The School also participates in the Dual Title in Operations Research.

D. Student's Committee for the M.S. Degree

1. The committee shall consist of a minimum of three graduate faculty members, including a minimum of two members of the School of Forest Resources faculty in the student's graduate major. At least one member shall be chosen to represent the minor field, if appropriate; this may be a faculty member within the School if the minor field is in the School. Membership from other departments is encouraged. In addition to these minimum requirements, special committee members from outside the Graduate Faculty can be added to the committee with permission of the Assistant

- Director for Graduate Studies if their expertise has special relevance to the topic. If such a special member is added, the committee should also include at least one member of the University Graduate Faculty outside the School.
2. The thesis advisor (if a member of the School faculty) shall serve as chair of the committee. If the thesis advisor is a co-advisor from another unit of the University, then the co-advisor in the School serves as chair. The composition of the committee shall be proposed by the thesis advisor in consultation with the student, and submitted to the Assistant Director for Graduate Studies as part of the Graduate Academic Plan (Section III.D.5). Notification of changes in the committee's composition should be filed with the Assistant Director. Since the constitution of master's committees is a unit level purview, questions in this regard should be directed to the Assistant Director rather than to the Graduate School.
 3. The committee shall be established during the student's first 4 months of residence.
 4. Responsibilities of the student's committee are as follows:
 - a. To determine course deficiencies to be remedied and courses to be taken and to approve the student's research and "Graduate Academic Plan" (Appendix E). A copy of the student's Graduate Academic Plan should be provided to the student, each committee member, and the Assistant Director, immediately following the initial meeting; i.e., before the end of the student's first semester in residence.
 - b. To be available for consultation with the student on an individual basis.
 - c. Before the end of the student's first semester in residence and at 12-month intervals or less thereafter, the committee shall be assembled to hear progress of the student's course work and research. Details of the research plan are given in item E below. Committee members from other departments shall be informed of the M.S. requirements of the School of Forest Resources.
 - d. To read and evaluate the thesis. During its preparation frequent contact with the committee is valuable. Finished copies of the thesis must be delivered to the members at least 2 weeks before the scheduled exam.
 - e. On completion of the academic program and thesis, a final examination shall be given by the assembled committee (see Section III.F). It is the responsibility of the committee chair to arrange the examination and announce it by email to faculty and graduate students in the School at least two weeks in advance. The examination opens with a public oral presentation by the student. AN INTENT TO GRADUATE MUST BE FILED EARLY IN THE FINAL SEMESTER.

E. Research and Thesis for the M.S. Degree

1. The thesis advisor shall be consulted concerning an appropriate topic early in the student's residence. An acceptable M.S. thesis topic is expected to have attributes similar to doctoral research, but be less rigorous (see Section VI.C). The choice will be influenced by the intended career, degree of experience of the candidate, and the time and resources available for the program. It should contribute to an organized research project in the School.
2. Thesis research should begin as early as possible. A literature review shall be initiated and a written thesis research outline (including hypotheses, objectives, and

procedures) shall be prepared for the student's committee meeting to be held within the first academic year of residence. A copy of the plan shall be delivered to each member of the committee at least 1 week before the scheduled meeting.

Recommendations for changes shall be sought. If a new draft is required, it shall be accomplished within 3 months. Approval by committee members will be required. Committee members may be consulted individually on specifics of the work.

3. Annual meetings of the student's committee shall be scheduled to review the progress of the thesis research.
4. The finished research shall be assembled in approved thesis format (see "Thesis Guide") and according to the timelines published by the Graduate School. Two copies from the final draft filed with the Graduate School are to be made and bound, one for the School's main office and the other for the student's advisor.

F. Examination for the M.S. Degree

1. The assembled student's committee shall administer the final oral examination.
 - a. Primarily, the final examination is of the student's completed thesis. The student should be able to defend the methodology, findings, and conclusions of the thesis, and be able to relate findings to the pertinent literature. Little time during the examination should be spent on minor editorial comments that can be worked out in separate meetings with the committee members.
 - b. The committee should also examine the student on academic studies and may recommend that a portion of the examination be written.
2. The M.S. final oral examination is scheduled by the advisor in consultation with the student and committee members, giving two weeks advance notice to all faculty and graduate students in the School. The Assistant Director for Graduate Studies is to be notified when the exam is scheduled, and given written report of results (see Section VI.C).

SECTION IV. MASTER OF FOREST RESOURCES DEGREE

A. The M.F.R. Degree

The Master of Forest Resources is a professional degree program that offers training in applying a variety of technical and innovative skills toward interpreting and resolving the forest resources-related problems of communities, government agencies, conservation groups, and industries. The program emphasizes analysis, synthesis, and applications of knowledge for the purpose of using forest resources or products in harmony with man's environment, rather than to create new information through the more traditional types of research. Of particular concern are problems that involve human, biological, and technological interactions.

B. Course and Credit Requirements for the M.F.R. Degree

The student is responsible for consulting with the advisor before each registration period. Prior to the first registration, the student and advisor will discuss the choice of courses for that semester and subsequent semesters. Prior to the end of the first semester, the student and advisor shall develop a Graduate Academic Plan (Appendix E) for approval by the student's committee. The Graduate Academic Plan may be modified with approval of the committee during any registration or drop/add period. The plan will include alternative courses in case the student is unable to obtain a first choice.

The minimum Graduate School requirements and specific School requirements are as follows:

1. Admission deficiencies, if any, must be removed to the satisfaction of the student's committee.
2. A minimum of 30 graduate credits (400- and 500-level courses) is required, of which 20 credits must be earned at an established graduate campus of the University with at least 18 credits as formal courses (excluding paper writing, colloquia, and independent studies) related to forest resources, wood products, or wildlife and fisheries.
3. At least 18 credits must be at the 500 level, including at least 6 credits of formal courses and the credits associated with the MFR paper. Note: as of Fall 2007, the Grad School has imposed a requirement of 18 credits at 500 level or higher for all professional masters degrees.
4. At least 3 credits of statistics at the 400 or 500 level are required. Other equivalent level quantitative courses may be substituted for statistics with approval of the student's committee.
5. Optionally, a student may elect a minor of no fewer than 6 credits of integrated work in one field related to, but different from that of the major. Permission of the student's committee and approval of the department or committee responsible for the minor field are required.
6. A paper (3-6 credits of FOR/WP/WFS 596) and formal presentation (1 credit of FOR/WP/WFS 596) are required as part of the 30 credits that demonstrates ability to apply knowledge gained during the program to the specialized field of interest.

7. A final examination is required. A copy of the MFR paper (in thesis format) must be submitted for binding and placement in the School reference collection.

C. Student's Committee for the M.F.R. Degree

The same requirements as for the M.S. degree student's committee (Section III.D) must be met, except that where a thesis is referenced, the word "paper" should be substituted.

D. Preparation and Review of the M.F.R. Paper

1. In conjunction with the student's advisor, a proposal for the M.F.R. paper should be prepared during the first year of residence and approved by the student's committee. The paper may be, for example, a problem analysis, a critical and thorough literature review, or a description of the application of new technology to solving a specific problem. In any case, it should demonstrate originality and indicate that the candidate can apply recently acquired knowledge to professional problem solving.
2. The paper should normally be submitted to the student's committee for approval toward the end of the student's program.
3. The quality of writing and format, including an abstract, should be equivalent to that of an M.S. thesis (see "Thesis Guide").
4. On acceptance of the student's paper by the student's committee (at the final examination), the student will be considered to have satisfied this portion of the requirement for the degree.
5. Following receipt of a final, signed copy of the paper, notice of acceptance is to be given by the student's committee chair to the Assistant Director, who will notify the Graduate School that this requirement has been fulfilled. This shall be done at least 1 week before the last date for departments to certify to the Graduate School the completion of required papers for degree conferral.
6. A bound copy of the M.F.R. paper is to be placed on file with the theses in the School's main office and a copy given to the student's advisor.

E. Examination for the M.F.R. Degree

The same requirements as for the M.S. degree (Section III.F) shall be met, except that where reference is made to the thesis, the M.F.R. paper is substituted (see also Section VI.C).

SECTION V. DOCTOR OF PHILOSOPHY DEGREE

A. The Ph.D. Degree

The objectives of the Ph.D. degree are: (1) to attain the highest level of scholarship and independent research in one of the three subject matter areas within the School of Forest Resources, (2) to conduct original research in a scholarly manner which represents a significant contribution to knowledge within the scope of the School's programs, and (3) to develop a proficiency in a basic scientific discipline in relation to one of the School's subject matter areas.

The Ph.D. candidate must develop and demonstrate the ability to conceive and conduct independent research. The degree is designed to produce a scientist proficient in scientific principles and capable of academic teaching and/or scholarly research.

The M.S. or equivalent degree, as described in Section III of this handbook, is typically a prerequisite for admission to the Ph.D. program. Baccalaureate degree students who have authored a refereed publication or graduated from an honors program with a required thesis may be considered for admittance without a master's degree. To earn the degree, the candidate shall: (1) satisfy Graduate School requirements; (2) complete independent study and course work approved by the student's committee; (3) accomplish required research and prepare a thesis embodying the research findings; and (4) pass examinations, meet international understanding and communications requirements, and complete all other requirements prescribed by the School of Forest Resources and the Graduate School.

Following admission to residency, even if course work and thesis research have been initiated, full acceptance in the Ph.D. program requires passing the Candidacy Examination early in the residency period (see Section VI.A). The student must be registered during the semester that the candidacy exam is administered.

Students are encouraged to use the "Check List of Graduate School Requirements for Ph.D. Candidates" (Appendix G).

B. Course and Credit Requirements for the Ph.D. Degree

The student is responsible for consulting with the advisor before each registration period. Prior to the first registration, the student and advisor will discuss the choice of courses for that semester and subsequent semesters. Subsequent to the Candidacy Exam and preferably prior to the end of the first semester, the student and advisor shall develop a Graduate Academic Plan (Appendix E) for approval by the student's committee. The Graduate Academic Plan may be modified with approval of the committee during any registration or drop/add period. The plan will include alternative courses in case the student is unable to obtain a first choice.

1. Subject matter deficiencies, if any, must be removed to the satisfaction of the student's committee. A guidance committee cannot be appointed until the student has passed the candidacy exam (see item D below on committee appointment).

2. The student's doctoral committee has the responsibility to approve the courses and credits it considers essential for the education and development of the candidate. The committee must ensure that the student is properly trained and prepared to conduct Ph.D.-quality research in a basic scientific discipline applicable to one of the School's subject matter areas – forest science, wildlife and fisheries science, or wood products.
3. The Graduate Academic Plan for the Ph.D. shall include courses for the major and for the basic scientific disciplines, as appropriate.
4. Minimum course credits required for the Ph.D. are those defined for the M.S. degree (Section III.B). If they have been fulfilled in a M.S. or equivalent program, only additional courses required by the student's doctoral committee (along with seminar and supervised teaching credits) will need to be taken. A typical Ph.D. student will have approximately 50 to 60 credits in formal course work beyond the baccalaureate degree.
5. In addition to those credits required in 590 for the M.S., Ph.D. students should have 2 credits of 590 while in the Ph.D. program, at least 1 of which is a regularly scheduled FOR 590 or WFS 590 course. These 590 courses should require presentations. Substitution as described for the M.S. degree is permitted and the School provides modest travel support for meeting attendance (Appendix F).
6. All Ph.D. students are required to assist in teaching an undergraduate class and to enroll for at least one 602 credit (Supervised Experience in College Teaching) during a student's program. The student's advisor and the course instructor will assign teaching duties. The assignment must include some direct interaction with students.
7. Credits for courses earned in graduate studies at other institutions may be applied toward the degree as follows:
 - a. The student's committee may approve pertinent courses equivalent to 400- or 500-level formal courses at The Pennsylvania State University.
 - b. Special problem courses are excluded.
 - c. The courses fall within limitations prescribed by the Graduate School for transferable credits (see Graduate Bulletin for transfer process).
8. Residence requirements for the Ph.D. are specified in The Pennsylvania State University bulletin "Graduate Degree Programs." **STUDENTS MUST MAINTAIN CONTINUOUS REGISTRATION (summers excluded) AFTER PASSING THE COMPREHENSIVE EXAM.**

C. International Understanding and Communications Requirements for the Ph.D. Degree

1. International understanding and communications are important with respect to domestic and global issues concerning natural resource conservation and stewardship. In recognition of the need for global literacy of Ph.D. students, there are communications requirements in English and in one other language or understanding of a foreign culture. The pursuit of cultural understanding should entail depth and effort equivalent to reading comprehension of a foreign language; i.e. freshman level survey courses are not sufficient. Logically, pursuit and demonstration of cultural understanding should be related to the thesis research context. Proposals for

international understanding are also subject to review by the School's Graduate Studies Committee.

2. a. Assessment of English Competence

Candidates for the degree of Doctor of Philosophy in Forest Resources or Wildlife and Fisheries Science will be required to demonstrate a high level of competence in the use of the English language (see Graduate Degree Programs Bulletin). An assessment of English competence will be made at the Ph.D. Candidacy Examination, which is normally given before or during the second semester of the student's residence. The student will be expected to demonstrate competence in subject matter related to the major. In addition, the Candidacy Examination will be used to assess both written and oral English competence. In general, a written question (possibly non-subject matter), requiring no more than 30 minutes to answer, will be included in the examination. The Ph.D. candidate also will be expected to demonstrate English competence in both written and oral answers to questions dealing with subject matter. Competence will be demonstrated by using proper vocabulary, spelling, grammar, sentence structure and punctuation, and by constructing answers in an understandable and organized manner.

Written and speaking competence in English will be assessed by the Candidacy Examination committee. The 4-person (or more) committee will evaluate all answers given by the student to written and oral questions at the Ph.D. Candidacy Examination. Foreign students are also required by the Graduate School to be certified in oral English proficiency prior to serving as teaching assistants.

b. Improvement of English Competence

A Ph.D. candidate who does not adequately demonstrate competence in English shall be directed into one or more special remedial courses offered outside the School of Forest Resources. These courses will be approved by the Candidacy Committee, depending on the student's inadequacies. Non-native speakers of English will be required to pass with at least a "B" grade SPCOM 114G (Basic ESL) and/or SPCOM 116G (ESL Reading and Writing). Native speakers of English will be required to pass with at least a "B" grade at least one of the following courses: ENGL 202 (Effective Writing), ENGL 418 (Advanced Technical Writing and Editing), or ENGL XXXG (Writing in the Disciplines). In addition, the student will be required to enroll in FOR 590 or WFS 590 and give at least one oral presentation.

c. Attainment of English Competence

A Ph.D. student who has not adequately demonstrated competence in the English language at the Ph.D. Candidacy Examination shall fulfill all remedial requirements recommended by the Candidacy Examination Committee. The student then will be required to retake the English competence component of the

Ph.D. Candidacy Examination. If a student fails to demonstrate a high level of English competence at the second assessment, the Candidacy Examination Committee will recommend to the Assistant Director for Graduate Studies that the student not be allowed to continue in a Ph.D. program.

3. International Communications or Culture Requirement

The purpose of this requirement is to enable each Ph.D. candidate either to communicate in one foreign language or to become demonstrably familiar with a culture in which English is not the principal language and is relevant to the research area of the candidate. The candidate is required to earn a grade point average of at least 3.0 on a 4.0 scale in two undergraduate or graduate courses (6 or more credits), or to document equivalent competence acquired previously in a foreign language or culture. One of the following options is to be chosen in relation to the student's desired career. Whichever of the options is chosen, a logically coherent written justification is to be prepared for the candidacy exam and attached to the Graduate Academic Plan upon its approval. The justification should clearly relate the proposal to the candidate's overall program of study, and is subject to review by the School's Graduate Studies Committee.

- a. Two courses in one foreign language.
- b. Two courses in one or two contemporary foreign cultures. Appropriate courses are listed not only under languages, but also in other majors such as Geography or Political Science. These courses should complement each other and be such that the candidate could structure research in a culturally cognizant manner within that setting, which normally entails that at least one of the courses treat the subject beyond the introductory level.
- c. No courses if a student has met the intent of the requirement in recent years through language studies or by having been thoroughly exposed to a different culture. An international student whose native language is other than English has met the requirement by learning a second language and by experiencing a second culture.
- d. Scoring in at least the 50th percentile of the ETS examination in a foreign language.

3. Administrative Procedures of the International Communications or Culture Requirement

- a. The advisor informs the doctoral student of this requirement upon enrollment and discusses the options to the extent that concurrence with the approach can be obtained in the Candidacy Examination.
- b. Soon after the Candidacy Examination, the student submits to her/his Ph.D. committee a written proposal describing previous studies of foreign languages and cultures, specifying courses that could meet this requirement. If this

requirement has already been met, the student presents evidence to document this claim.

- c. The Ph.D. committee consults with the student, approves an option and courses for meeting the requirement, and informs the Assistant Director for Graduate Studies how the requirement is to be met. This is subject to review by the School's Graduate Studies Committee.
- d. When the student has satisfactorily completed this requirement, the advisor notifies the Assistant Director, who then certifies completion to the Graduate School. As indicated earlier, written justification for the language/culture proposal should be attached to the Graduate Academic Plan for reference by the Assistant Director.

D. Student's Committee for the Ph.D. Degree

1. The Ph.D. committee shall be established after the student has passed the Candidacy Examination. The thesis advisor, in consultation with the student, shall propose the composition of the committee. **The membership proposal shall be confirmed by the Assistant Director, who will provide a form to be signed by prospective committee members and then submitted by the Assistant Director to the Graduate School. Appointment of the Ph.D. committee is the purview of the Graduate School upon recommendation by the School of Forest Resources.**
2. The committee shall consist of at least four members of the graduate faculty. At least one member outside the School of Forest Resources shall be chosen to represent a related field and to provide external assessment of thesis quality to the Graduate School. The outside member cannot have any budgetary connections to the School of Forest Resources. Any changes or special membership in the committee must be approved by the Graduate School.
3. The thesis advisor shall serve as chair or co-chair of the student's Ph.D. committee. A member of the graduate faculty must chair the committee.
4. Responsibilities of the committee:
 - a. To approve the student's research and course work plans. A copy of the student's Graduate Academic Plan (Appendix E) should be filed with the student's committee members and the Assistant Director for Graduate Studies.
 - b. To be available for consultation with the student on an individual basis.
 - c. To read and evaluate the thesis.
 - d. To administer the student's Comprehensive and Final Oral Examinations (Sections VI. B & C).
5. The committee should meet at least once annually while the student is in residence.

E. Ph.D. Thesis Research

1. Acceptable Ph.D. research must be original in its conception. Such research consists of scholarly inquiry, hypothesis testing, investigation, or experimentation, having as its objective the revision of existing concepts, development of new concepts, or development of new or improved techniques in some specialty area. It is research that is well-structured, uses appropriate techniques, and is adequately described. It

should illuminate areas of controversy, or areas that seem significant and lack information, based on an adequate literature review and interpretation. The results should be acceptable for publication in a refereed scientific journal, thereby making a contribution to scientific knowledge.

2. The short time span of Ph.D. programs limits choice and design of research projects. However, appropriate Ph.D. theses high in quality are possible and are expected when students choose suitable problems in consultation with their thesis advisor and doctoral committee. Collaboration among these individuals should ensure reliable techniques and appropriate experimental designs, and should assist students in achieving high levels of originality, creativity, and resourcefulness in their research.
3. Thesis research should begin as early as possible in a student's program. The thesis advisor shall be consulted concerning an appropriate problem early in the student's residence. A literature review shall be initiated and a written research outline (including hypotheses and/or objectives, and procedures) shall be prepared for the student's committee no later than 6 months after the student has passed the Candidacy Examination. A copy of the plan shall be delivered to each member of the committee at least 1 week before a meeting is scheduled. Recommendations for changes shall be sought. If a new draft is required, it shall be accomplished within 3 months. The student's committee must approve the final thesis plan.
4. Subsequent revisions of the plan necessitated by minor changes in objectives may be accomplished by consulting committee members individually. The committee shall approve major revisions. Copies are to be retained by the advisor in the student's file.
5. Meetings of the student's committee shall be scheduled at least once each academic year to review progress in course work and thesis research. The student shall give a progress report to the committee at the meeting.
6. The finished research shall be assembled in approved thesis format (see "Thesis Guide").

SECTION VI. PH.D. AND MASTER'S DEGREE EXAMINATIONS

Descriptions of the three examinations are also given in the PSU bulletin "Graduate Degree Programs."

A. Candidacy Examination (Ph.D. Only)

1. The Candidacy Examination should be scheduled soon after a student begins doctoral studies at this university. The advisor should make the necessary arrangements with the Assistant Director at least 1 month in advance and send an announcement to the School of Forest Resources faculty. A copy of these regulations should be provided to committee members outside of the School.
2. This exam should determine whether a student is qualified to become a candidate for the Ph.D. degree and should identify deficiencies that need to be corrected through course work or other means.
3. A candidacy committee, consisting of at least three faculty members plus a Graduate Faculty member, representing the Graduate Studies Committee, who serves as chair is to be appointed by the Assistant Director in consultation with the advisor. The thesis advisor cannot serve as chair of the candidacy examination. The student must be registered during the semester the exam is conducted.
4. The doctoral student, assisted by his/her advisor, will prepare sufficient copies for the Candidacy Examination committee of a resume of graduate study objectives, an outline of the proposed program, a proposal for meeting the foreign language requirement, evidence of high-level competence in use of the English language (reading, writing, speaking), and other candidacy qualifications. These should include clear evidence of scholarly and research abilities. Examination scores, such as GRE, may supplement academic records.
5. The examination will consist of oral and written questions, at least one general, written question (may be non-subject matter) will be used to assess English competence. Initial oral exam will determine whether written questions beyond the English competency are needed.
6. The committee determines if the student meets the English language requirement, decides whether any remedial action is needed, and reviews plans for meeting the foreign language requirement, recommending approval or revision.
7. The chairman reports specific course deficiencies and other remedial actions recommended by the committee to the Assistant Director immediately after the examination. The student's objectives and a comparison of his/her completed courses with the School's B.S. and M.S. degree requirements should be taken into consideration. It is the responsibility of the advisor to ensure that stipulations from the Candidacy Exam are satisfied in the SFR Graduate Academic Plan approved subsequently by the student's committee.
8. A two-thirds favorable vote is required for approval, after which the Assistant Director will notify the Graduate School that the student is acceptable as a candidate.
9. If a student is not acceptable, the committee decides whether or not the student will be permitted to continue and take another Candidacy Examination.

B. Comprehensive Examination (Ph.D. Only)

1. The examination will be scheduled after a candidate completes requirements in communications, foreign language, and the majority of courses. It is administered by the student's committee. It is scheduled by the Graduate School through the Assistant Director, School of Forest Resources, using the form given in Appendix H. At least 3 weeks should be allowed for receiving exam reporting forms from the Graduate School. The student must be registered during the semester the exam is conducted.
2. The purposes of the examination are to evaluate whether the doctoral candidate has acquired sufficient knowledge in his/her field, has the ability to design and evaluate significant research, has resourcefulness in formulating and solving problems in his/her field, and has the ability to communicate effectively with both scientists and laymen. The examination will probe the student's scientific and general knowledge and ability to do original thinking.
3. The committee should confer prior to the examination to review the objectives of the candidate's program and the structure of the examination. Questions should examine the candidate's knowledge of his/her major and minor fields of specialization. The examination consists of both written and oral components, with the written component preceding the oral component.
4. The candidate should provide copies of the thesis research proposal prior to the examination. The proposal is to be prepared in accordance with the Agricultural Experiment Station project format. During the oral examination, the candidate should review the proposal and describe progress.
5. A two-thirds favorable vote of the student's committee is required for successful completion of the Comprehensive Examination. The committee chair notifies the Assistant Director and the Graduate School of the results of the examination by completing the forms supplied by Graduate School at the time of scheduling. In case of failure, the committee decides if a second examination will be permitted.
6. Students must be registered continuously each semester (excluding summers) beginning with the semester following the passing of the comprehensive examination and continuing each semester until the final oral examination is passed.

C. Final Oral Examination for the M.S., M.F.R., and Ph.D. Degrees

The final examination is oral and related in large part to the thesis, but it may cover the candidate's whole program of study without regard to courses that have been taken either here or elsewhere. It is scheduled after completion of other requirements for the degree.

1. The student meets with the thesis advisor to: (1) ascertain if all of the course requirements for the degree have been met; (2) verify that the thesis or paper is complete, and (3) arrange possible dates and place of examination. The thesis advisor should have records available at the examination indicating compliance with degree requirements.
2. The advisor contacts the committee members and arranges a convenient time for the examination within specified time limits set by the Graduate School in relation to date of graduation and Comprehensive Examination for the Ph.D.

3. The thesis advisor contacts the Assistant Director with date, time, and place, and the list of committee members, in the case of Ph.D. candidates at least 3 weeks before the scheduled date. An updated copy of the Graduate Academic Plan, signed by the student and the advisor, is given to the Assistant Director at this time for submission to the Graduate School. This is especially important if few Forest Science/Wildlife and Fisheries Science/Wood Products courses are included.
4. The Assistant Director schedules the examination for Ph.D. candidates by letter through the Graduate School using the form given in Appendix H. Since the master's exam is an internal function of the School, it is the major advisor's responsibility to schedule the exam. The advisor will announce the thesis defense to the faculty of the School of Forest Resources in writing at least 10 days prior to the scheduled date. Ph.D. final oral examinations are open to the public. Master's exams are to be similarly announced, but students and the general public may be excluded at the discretion of the advisor.
5. The student delivers the thesis or paper in final format approved by the thesis advisor, and in compliance with the "Thesis Information Bulletin," to the committee members at least 2 weeks before the examination. The thesis (or paper) should be reviewed by members of the student's committee prior to the examination. At the time of the Final Oral Examination major revisions should not be necessary. If, in the opinion of a committee member, the thesis or paper is not ready to be defended, he shall request that the advisor postpone the examination. For the final examination the student should be prepared to defend the methodology, findings, and conclusions of the thesis or paper, and relate the findings to pertinent literature. Little time should be spent on minor editorial comments that can be worked out in separate meetings with committee members.
6. A two-thirds favorable vote of the student's committee is required for successful completion of the Final Oral Examination.
7. The thesis advisor presents the results of the Final Oral Examination in writing to the Director and Assistant Director immediately following the examination. In the case of the Ph.D. final examination, the student's committee chairman also returns the completed Graduate School report form, a copy of which should be sent to the Assistant Director for placement in the student's file.

SCHOOL OF FOREST RESOURCES
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Judd H. Michael ^{gf}

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Paul M. Smith ^{gf}

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CONFIDENTIAL
FACULTY REVIEW FORM

Name _____

B.S. School _____ M.S. School _____

Degree Sought _____ Jr.-Sr. Average _____

Major Sought _____

Interest Area _____

GRE's: Verbal _____

Quantitative _____

Analytical _____

TOEFL Score: _____ (International Students)

Indicate your recommendations by adding a date next to your name below and circling your answers to these questions:

- (1) Should this applicant be admitted to a doctoral (D), or Masters (M) program, or as a provisional (P) student, or be rejected (R)?
- (2) Are you willing to serve as advisor? Y = Yes, N = No, L = will decide later.
- (3) Have you an assistantship (non-School) to offer applicant now?
- (4) Should applicant be considered for one of the school's assistantships?
- (5) Do you want a copy of this page, when completed? Please retain the copy of the application for your files if you are interested in serving as an advisor for this applicant.

Name: _____ Date: _____ Circle one letter for each question

	(1)	(2)	(3)	(4)	(5)
_____	D M P R	Y N L	Y N	Y N	Y N

Please complete and return to Dr. Myers, 116 Forest Resources Building.

APPENDIX C. POLICY AND PROCEDURES FOR AWARDING ASSISTANTSHIPS OF THE SCHOOL OF FOREST RESOURCES

(Approved by faculty, January 24, 2000)

1. This process governs the distribution of assistantships controlled by the School of Forest Resources, through general fund allocations or other general-use funds (e.g., endowed fellowships). Assistantships derived from research contracts/grants or from special projects (e.g., endowed or annual fellowships designated for the Center for Watershed Stewardship) are not governed by this process.
2. Each tenure-track faculty member in the School of Forest Resources at the University Park campus is allocated a half-time academic-year graduate assistantship to assign to a student under his/her advisement.
3. Faculty may assign assistantships to students in any graduate program in which they are entitled to advise students.
4. A student receiving an assistantship must have been admitted as a regular student (not provisional) through the normal programmatic admissions process.
5. A student receiving an assistantship must be in good standing and be making normal progress toward his/her graduation.
6. The assistantship may be split as two quarter-time assistantships if the faculty member desires.
7. Assistantships are not transferable from one faculty member to another.
8. To allocate their assistantship, faculty members must notify both the School Director and Assistant Director for Graduate Studies of the student(s) they have selected. The Assistant Director will then send the official letter of offer.
9. The faculty member may make a verbal offer of an assistantship to the selected student as early as desired, but no later than March 1.
10. An assistantship that has not been assigned by the faculty member by March 1 reverts to the School's general assistantship pool.
11. If a student offered an assistantship declines an offer after March 1 but before April 15, the faculty member has until May 15 to offer the assistantship to another student (following the procedure in step 8, above) and to receive an acceptance from the student. If the assistantship has not been assigned and accepted by May 15, it reverts to the School's general assistantship pool.
12. Each assistantship carries the responsibility for one semester of graduate teaching assistance. Specific courses will be assigned by the Director and the Assistant Director for Graduate Studies, according to existing procedures for assigning teaching help to courses. As much as possible, the student's teaching responsibilities will be assigned to courses taught by the student's advisor.
13. Funding in excess of that needed to support the academic-year assistantships allocated by this process will be used by the Graduate Studies Committee for summer support for graduate students, with the following priorities:
 - First, each newly hired tenure-track faculty members will receive summer funding for one student for three summers.
 - Second, faculty members with emergency needs for summer support will receive summer funding for one student. Requests for summer support need to be made to

- the School Director and Assistant Director by May 15 (just before the summer for which funding is requested).
14. If additional funds remain available after all summer requests are filled, additional allocations of single semester assistantships may be given by the Graduate Studies Committee. Requests for additional academic year support can be made at any time.
 15. The Director will retain some assistantship funds to support teaching needs that cannot be satisfied by matching faculty-assigned assistantships with teaching needs.

Appendix D.

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(page 1 of 3)

Graduate Student Committee Procedures¹ and Doctoral Committee Appointment Signature Form

(For a complete list of doctoral committee policies, please refer to the Graduate Bulletin or on-line at <http://www.psu.edu/bulletins/whitebook/>)

I. Justification:

A graduate student's committee is responsible for approving a student's program and promoting communication among the graduate student, the committee chair (or adviser), and the members of the committee, and, more generally, for helping to ensure the successful completion of a student's program. The committee should be appointed as soon as possible in a master's program and immediately after the doctoral student's admission to candidacy. The following **Doctoral Student Committee Policies and Procedures** are designed to achieve these goals, minimize misunderstandings, and help foster a collegial relationship among the graduate student, the committee chair, and the members of the committee throughout the graduate student's program. **Each doctoral student, chair and committee member should receive a copy of these policies and procedures.**

II. Policies and Procedures for Doctoral Students and Committees:

1. The **doctoral committee** should meet with the student **at least once per year** to (1) provide guidance, (2) finalize and approve the research proposal of the student so that there is a clear understanding of the research goals and objectives, (3) assess the quality and progress of the research, and (4) discuss programmatic issues (e.g., course requirements).
2. Both the **chair** and the **student** are responsible for providing a copy of the final draft of the dissertation to the committee **at least 2 weeks** prior to the scheduled date of the final oral examination. The chair should schedule a date for the examination with the Office of Graduate Enrollment Services **at least two weeks** prior to the examination.
3. Both the **chair** and the **student** are responsible for ensuring the completion of a draft of the dissertation and **for adequate consultation** with members of the doctoral committee well in advance of the final oral examination. Major revisions of the dissertation should be completed before this examination. The dissertation should be in its "final" draft, with correct and polished content and style, appropriate notes, bibliography, tables, etc., at the time it is distributed to the committee members. **If committee members find that the draft submitted to them is not in this form, the chair is notified and postponement of the examination is considered.**
4. **If a committee member finds that the "final" draft is not correct and polished with respect to content and style, it is his/her responsibility to notify the committee chair (or adviser) at least one week in advance of the final oral examination date.** The committee member should indicate his/her concerns regarding the draft and recommend consideration of postponement of the examination to the committee chair (or adviser). The **committee chair** (or adviser), in consultation with committee members, is responsible for notifying the student and assessing whether the student can make the necessary revisions to the "final" draft before the examination date. If it is determined that revisions cannot be made in time, the examination should be postponed. If differences exist among committee members, the **department head or program chair** should be consulted to hear the expressed concerns and determine whether the examination should be postponed.
5. **If the dissertation is deemed unsatisfactory at the time of the examination by at least two-thirds of the committee, the student will fail the examination.** If a candidate fails, it is the responsibility of the committee to determine whether another examination may be taken by the student.
6. The primary responsibilities of The Outside Member are to (1) maintain the academic standards of the Graduate School and (2) assure that all procedures are carried out fairly. The Outside Member represents the Graduate School and, as such, The Outside Member shall be a member of the Graduate Faculty but need not have direct expertise in the research area of the candidate. The Outside Member may contribute technical expertise, but this role is subordinate to the aforementioned primary responsibilities. The Outside Member shall not hold an appointment having a budgetary connection to or other conflict of interest in the department or academic unit to which the doctoral program belongs, or to the department or academic unit of the chair or dissertation advisor, and cannot serve as either chair or co-chair of the committee.



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¹ Although master's programs vary widely across the University and differ from doctoral programs, departments and programs are urged to follow the spirit of the Procedures for Doctoral Students (points 1-6 above), when appropriate, for graduate committees of master's students. These Procedures (points 1-6) should be added to graduate program handbooks and/or web sites of departments or programs.

Doctoral Committee Appointment Signature Form

 Student Name (Print or Type) PSU ID Degree Sought (Ph.D./D.Ed.) Graduate Program

- III. Doctoral Committee Appointment Signature Page: A minimum of four members of the Graduate Faculty is required. At least two members must be from the major program (this may include the chair or co-chair). Please refer to the Graduate Degree Programs Bulletin "Advisors and Doctoral Committees" for detailed guidelines.

As the student/chair/committee member, I have carefully read and agree to the policies and procedures outlined on page 1, and, if a committee member, agree to serve as a chair/committee member for the student specified.

***Student:**

 Signature Date

***Chair of the Committee:**
 (Must be a member of the major program)

 Printed Name Signature Date

 List all departments/programs with which you have a budgetary connection

Co-Chair (if applicable):

 Printed Name Signature Date

 List all departments/programs with which you have a budgetary connection or adjunct appointment

***Dissertation Advisor**
 (Identify and sign even if chair or co-chair)

 Printed Name Signature Date

 List all departments/programs with which you have a budgetary connection or adjunct appointment

***Major Program Member(s):**
 (In addition to the chair or co-chair)

 Printed Name Signature Date

 Printed Name Signature Date

 Printed Name Signature Date

 Printed Name Signature Date

 Printed Name Signature Date

***The Outside Member:**
 (Cannot chair or co-chair; Must sign form last in order to assess potential conflicts)

As The Outside Member of this committee, I affirm that I do not have a budgetary connection or adjunct appointment or other conflict of interest with the department or academic unit to which the doctoral program belongs, or to the department or academic unit of the chair or dissertation advisor, and cannot serve as either chair or co-chair of the committee.

 Printed Name Signature Date

 List all departments/programs with which you have a budgetary connection or adjunct appointment

*Required Fields
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Additional members of the committee from outside the department or program, if applicable:

_____	Printed Name	_____	Signature	_____	Date
_____	Printed Name	_____	Signature	_____	Date
_____	Printed Name	_____	Signature	_____	Date

Minor Field Member(s), if applicable:

_____	Printed Name	_____	Signature	_____	Date
_____	Printed Name	_____	Signature	_____	Date

Gen. Studies Member(s): (For D.Ed. Students)

_____	Printed Name	_____	Signature	_____	Date
_____	Printed Name	_____	Signature	_____	Date

Special Member(s), if applicable: (Attach memo of request and vitae)

_____	Printed Name	_____	Signature	_____	Date
_____	Printed Name	_____	Signature	_____	Date

Name and Signature of Graduate Program Head or Graduate Officer verifying above information:

_____	Printed Name	_____	Signature	_____	Date
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Please note:

- (1) If the composition of the doctoral committee changes, a new committee appointment signature page must be resubmitted to the Office of Graduate Enrollment Services, but only the new committee member needs to sign it.
- (2) These policies and procedures pertain to Doctoral students; thus, this form is not required for Master's students.



APPENDIX E. GRADUATE ACADEMIC PLAN (GAP), SCHOOL OF FOREST RESOURCES (SFR)

Instructions: Prior to first registration, consult with advisor concerning initial choice of courses. Complete plan for entire degree program and obtain approval of committee within 3 months (M.S./M.F.R. degree) or promptly after Candidacy Exam (Ph.D.). Advisor reviews plan with student before each registration. Provide a copy of GAP for student's SFR graduate office files, 319 Forest Resources Bldg.

Student: _____ Date _____

Degree: _____ Major: _____ Minor: _____

Graduate Goals (attach student's statement).

Thesis Subject: _____

Schedule of Major Events (month, year); committee meets annually.

Entered	_____	Candidacy Exam (Ph.D.)	_____
Research Plan Approved	_____	Language Requirements (Ph.D.)	_____
Research Progress Rep.	_____	Comprehensive Exam (Ph.D.)	_____
Final Exam	_____	Teaching Exp. (Ph.D.)	_____

Summary of Courses (M.S. 30 total credits including thesis): (include number of credits/course in parens)

Deficiencies	Major (12 cr)	Statistics (6 cr)	Other Courses (6 cr)	500+600 (18 cr)

Colloquium (2 cr):

Summary of Courses (M.F.R. 30 total credits including thesis): (include number of credits/course in parens)

Deficiencies	Major (12 cr)	Statistics (3 cr)	Other Courses (3 cr)	500+ (18 cr)

A tentative course schedule should be attached.

Copies: Student _____ Advisor _____
 Grad. Chm. _____ Com. Members _____

 External (Ph.D.) _____

Form revised August 2007

APPENDIX F.

Forest Resources Professional Meeting Travel Award

Purpose: To encourage and facilitate presentation of original research findings at scientific meetings by graduate students.

Award Amount: Maximum of \$300 per student to help defray costs to an international, national or significant regional scientific meeting, except that School matches College level awards which exceed \$300.

Award Frequency: Awards may be given to students presenting a scientific paper. Up to several awards will be given per semester depending on funding and number of applicants, but only one award per student per degree.

Eligibility:

1. Must be officially enrolled for credits as a graduate student during either the semester in which the paper is presented or the semester immediately prior to the presentation.
2. Must give an oral or poster presentation at a significant regional, national, or international scientific meeting.
3. Must be the senior author of the presentation.
4. Must base the presentation on original research conducted in partial fulfillment of a graduate degree at Penn State.
5. Students are limited to one award from the School during a degree program.

To be Considered for the Award:

Submit the following to the Assistant Director for Research and Graduate Studies, 116 Forest Resources Building, as far in advance of the meeting as possible:

1. A **cover page** with title of presentation; author(s) name, location and date(s) of scientific meeting; statement on how award will be spent (e.g. lodging, vehicle rental); signature of your research advisor endorsing your presentation; and statement whether presentation is oral or a poster; and
2. An **abstract** with objective, methodology, results and conclusions, limited to one page, single-spaced and informative.

The abstracts will be reviewed and ranked by Graduate Studies Committee. If given an award, the student should contact the School's accounting office upon returning from the meeting to arrange reimbursement of the travel award.

It is to the financial advantage of the student to pursue travel awards through the College of Agricultural Sciences program that entails matching funds from the School of Forest Resources.

Revised 2/16/

APPENDIX G. CHECK LIST OF GRADUATE SCHOOL REQUIREMENTS FOR PH.D. CANDIDATES

Following is a summary of Graduate School requirements that Ph.D. students must meet before the Office of Graduate Programs may approve their graduation. Please use this as a guide for advising your students and provide a copy of it to students when they pass their comprehensive examination. The Graduate Programs Office will send copies to the students with the congratulatory candidacy letter. For more detailed information on these and other requirements, please refer to the Graduate Degree Programs Bulletin.

--**Residency requirement.** After passing the doctoral candidacy examination, students must be registered full time for two semesters in a twelve-month period. This may include the semester of candidacy examination if it is taken during spring or fall.

--A candidate for the Ph.D. must have satisfied the departmental communication and foreign language requirement (if applicable) before taking the comprehensive examination.

--Three or more months must have elapsed between the passing of the comprehensive examination and scheduling of the final oral examination.

--The final oral examination must be held within six years of the date the comprehensive examination was passed. If more than six years have passed, a second comprehensive examination must be given before scheduling the final oral examination.

--**Continuous registration requirement.** Students must be registered continuously each semester (excluding summers, but see below*) beginning with the semester following the passing of the comprehensive examination and continuing each semester until the final oral examination is passed.

--**Time limitations.** All requirements including submission of the thesis must be completed within eight years of the candidacy date.

--*Students **MUST** be registered the semester of candidacy examination, comprehensive examination and the final oral examination -- even if taken during summer session.

--No missing or deferred grades can appear on a student's transcript when the oral comprehensive examination or the final oral examination is scheduled.

--Students must have at least a 3.0 grade point average to schedule an oral comprehensive examination or final oral examination and to graduate.

--No more than 12 credits of thesis research (600/610) may be assigned a quality letter grade. Any credits over this maximum must be changed to 'R' before a student will be permitted to graduate.

THESE ARE GRADUATE SCHOOL REQUIREMENTS **ONLY** AND DO NOT
INCLUDE SPECIFIC PROGRAM/DEPARTMENT REQUIREMENTS

Examination Request Form

Office of Graduate Enrollment Services, The Pennsylvania State University, 114 Kern Building, University Park, PA 16802-3396; (814) 865-1795; (814) 863-4627

Please Schedule the doctoral Comprehensive Examination Or Final Oral Examination

Student name (last, first, middle initial) _____ PSU ID: _____

Degree _____ Major _____ Dual Title _____ Minor _____

Date of Examination _____ Place _____ Time _____

For Comprehensive Examination:

Has student met the English competency requirement? yes no

If required, has student met departmental language and communication requirements? yes no

The Doctoral committee is:

Chair of the committee: _____

Co-Chair (if necessary): _____

Major Field Member(s): _____

The Outside Member: _____

Additional Outside Members: _____

Minor Field Member(s): _____

General Studies Member(s): _____
(For D.Ed. Students)

Special Member(s): _____

Signature of graduate program head or graduate officer _____ Printed Name _____ Date _____

Please Note:

- (1) To allow for proper distribution to the committee chair, committee members, and student, paperwork must be submitted to the Office of Graduate Enrollment Services two weeks prior to the examination date.
- (2) Before the comprehensive or final oral examination can be scheduled, the Committee Appointment Signature Page (pages 2 and 3 of the Graduate Student Committee Policies and Procedures) must be completed and submitted to the Office of Graduate Enrollment Services. This page should be submitted soon after passing the Ph.D. or D.Ed. candidacy examination (if necessary, it may accompany this Examination Request Form).
- (3) If the composition of the committee changes, the Committee Appointment Signature Page (pages 2 and 3 of the Graduate Student Committee Policies and Procedures and Committee Appointment Signature Page form) must be resubmitted to the Office of Graduate Enrollment Services, but only the new committee member needs to sign it.
- (4) If a candidate is to fulfill the requirements for a minor, at least one representative from the minor field must be appointed to the doctoral committee. A memo and vita are required when requesting a special member or special signatory.

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Revised 6/05

