

VI. THE MASTER OF SCIENCE DEGREE

The Master of Science (MS) graduate degree program enables students to integrate knowledge and expertise drawn from both the natural and social sciences, and to research issues and apply their knowledge to solve practical problems in forest and natural resources management situations. The primary focus of the program is to provide an opportunity for graduates coming from related academic backgrounds with baccalaureates to gain a science-based education in forest and natural resources management. Graduates will successfully function as researchers and managers on multi-disciplinary forest and natural resource management teams and respond to the challenges related to the sustainable management of local, regional and global resources.

The program is open to both students with some prior background in forestry and natural resources and for those without such background. Students with a degree in a related discipline (e.g., ecology, biology, wildlife, chemistry, etc.) can complete the MS degree in twenty-four (24) to thirty (30) months. Students without a general science background will require more than thirty (30) months to complete the program. More than four (4) semesters of coursework may be required for students from non-science backgrounds who need additional basic undergraduate coursework as part of their program of study.

The Department of Forest and Natural Resources Management (FNRM) uses a checklist to facilitate detailed program planning and to document of the steps required for graduation (see below). Major Professors keep a version of the checklist with student-specific information in their advising files. Each student is encouraged to keep an updated personal copy. Checklists are available in the FNRM Office (320 Bray Hall).

A few graduate students manage to complete their entire degree programs without having to file a single petition. However, because of our students' diverse backgrounds, interests, degree programs, and personal lives, many of our students occasionally find themselves in violation of some College or FNRM policy, or find a need to create proper documentation for their academic file. The correct vehicle to use is a Petition (see Appendix A for information on petitions). Petition forms may be obtained from the Registrar's Office 111 Bray Hall).

Prerequisites

Students are accepted into our programs with a variety of backgrounds. Deficiencies in undergraduate-level English, ecology, forestry, soils, or statistics may have been identified in your letter of admission. If not completed prior to matriculation, appropriate classes should be taken during residence. Either undergraduate or graduate courses may be taken to remedy deficiencies, depending on the circumstance. Undergraduate courses are not included in grade point averages, and do not count toward satisfying the minimum number of required graduate credit hours.

Transfer Credit

Up to six (6) credits of graduate coursework **not used to complete any other graduate degree** may be accepted toward completion of a master's degree as approved by your steering committee. A student may not transfer any graduate coursework earned as part of a conferred master's degree toward an ESF master's degree. Students may transfer up to nine (9) credits of credit-bearing **non-degree ESF** graduate coursework (e.g., credit-bearing graduate coursework taken as a non-matriculated ESF student) toward a master's degree. Credit hours appropriate to the graduate degree in which a minimum grade of B was earned from an accredited institution can be transferred to the college, but grades and grade points cannot be transferred. All transfer credit will remain tentative until official, final transcripts are received. In addition, all transfer credits must be approved by the steering committee and by the Graduate Education Committee via a petition.

Steering Committee

You will have a steering committee that provides advice about your coursework and other aspects of the program. The steering committee is composed of the major professor, who is assigned to the student at admission, and at least two other faculty members or other qualified persons. A new major professor, different from the assigned, can be assigned by submitting a new Form 2A (available from the ESF Office of Instruction and Graduate Studies (227 Bray Hall) and at www.esf.edu/graduate/graddegreq.htm). Two co-major professors count as two committee members. You, in consultation with your major professor, chose who will be on your steering committee during the first semester. MS students must have a minimum of a major professor and two (2) steering committee members.

To have your steering committee assigned, your major professor must submit Form 2A Steering Committee (available the ESF Office of Instruction and Graduate Studies (227 Bray Hall) and at www.esf.edu/graduate/graddegreq.htm). This form must be signed by the Chair of the Graduate Education Committee and recorded by the FNRM Graduate Education Secretary.

As a graduate student, you are responsible and accountable for your progress. You should meet at least once a year with your steering committee, but frequent informal meetings with your major professor and individual committee members are strongly encouraged.

Coursework Requirements and Guidelines

The MS degree requires a minimum of thirty (30) total graduate credit hours. A total of twenty-four (24) hours in graduate coursework are required, of which at least eighteen (18) credit hours must be taken in residence at ESF. MS students must complete at least six (6) credit hours of thesis research credit (FOR 899: Masters Thesis). These general graduate requirements set by the College (see the College Catalog, available at www.esf.edu/catalog). Students develop programs of study to satisfy their coursework requirement in consultation with their major professor and steering committee. Coursework should provide a coherent body of theory, a set of appropriate methods to

test that theory, and should focus on an important area of application beyond the specific work done for the graduate degree (see Appendix C for guidance in coursework).

In addition to the general graduate requirements, FNRM has established the following specific requirements:

Seminars

All MS students must take two (2) topical seminars, at least one of which must be a FOR 797 topical seminar. FOR 690 Seminar and Workshop: Natural Resources Policy and Management can be used to meet this requirement.

Capstone

All MS students must present a capstone seminar on their thesis work. The student's presentation in a FOR 797 course may be used as the capstone seminar if it is so advertised. You should submit all of your capstone information to the FNRM Office (320 Bray Hall). You will need to set up the time, date, and location of your capstone after checking with your major professor and steering committee members. This information must be given to the Graduate Secretary (Ms. Tari Pittenger, 320 Bray Hall), at least two (2) weeks in advance of your capstone. Capstones will not be scheduled with less than two weeks notice. Ms. Pittenger will produce a flyer and have copies posted around campus.

600-level and Resident Courses

As noted above, MS students must complete at least thirty (30) graduate credits (twenty-four (24) coursework credits and six (6) thesis research credits). Twelve (12) coursework credit hours must be at the 600-level or above. No more than two (2) credits of seminar can be counted as part of the twelve (12) 600-level or above coursework requirement.

Student Study Plan

After forming your steering committee, you **must** fill out Form 3B: Graduate Student Program (available from the ESF Office of Instruction and Graduate Studies (227 Bray Hall) and at www.esf.edu/graduate/graddegreq.htm). This form **must** be signed by your major professor, all of the members of your steering committee, and the Chair of the Graduate Education Committee. The FNRM Graduate Secretary (Ms. Tari Pittenger, 320 Bray Hall), records the form and forwards it to the Office of Instruction and Graduate Studies for approval. Once approved, Form 3B serves as an institutional endorsement of your graduate program of study and protects you by officially stating what courses you will complete and when you will complete them, and how you will complete your thesis requirements. Students that change their program of study must submit an updated Form 3B (signed by your major professor, all of the members of your steering committee, and the Chair of the Graduate Education Committee) to the FNRM Graduate Secretary (Ms. Tari Pittenger, 320 Bray Hall).

Thesis

A focal point of MS graduate study is the thesis. A thesis is a document that clearly demonstrates your graduate level accomplishments. It details the results of your scholarly endeavor and is the subject of the thesis defense. The MS thesis should demonstrate that the student has: 1) a core understanding of the state of knowledge in the field of study, and 2) working knowledge of the scientific method.

FNRM accepts two thesis styles: 1) the traditional style or 2) the manuscript style. The traditional style is described at www.esf.edu/graduate/thesisdiss.htm. Directions for preparation of a manuscript style thesis is available in Appendix D. Examples of title page, abstract, and vita page are available at the web page noted above. MS students and their major professors and steering committees decide which style – traditional vs. manuscript – is appropriate for each student.

Thesis Defense Examination

The thesis defense examination is conducted by your steering committee and one or more additional examiners, for a minimum total examining committee of four (4) persons. In addition, the Dean of Instruction and Graduate Studies appoints a faculty member from outside FNRM to supervise the examination. Students *must* fill out Form 5B: Request to Appoint Defense of Thesis/Dissertation Examination Committee (available from the Office of Instruction and Graduate Studies (OIGS) (227 Bray Hall) and at www.esf.edu/graduate/defense.htm) to appoint a thesis examination committee. When OIGS receives the signed form, a chair will be appointed for the defense. You will then receive Form 5C, which officially appoints your committee, at which time you need to contact all members of the committee, including the chair, to schedule your defense.

The student is responsible for working with the major professor, OIGS, and all examining committee members to plan the examination and meet all deadlines for delivery of materials. Form 5B should be submitted to the OIGS at least one (1) month prior to the anticipated defense date. The student must inform OIGS of the agreed upon date, time, and location for the defense at least two (2) weeks in advance of the defense date.

A final draft of the thesis must be delivered to each member of the Defense Committee, including the Chair, at least fourteen (14) days prior to the scheduled defense date.

Department of Forest and Natural Resources Management MS Checklist

Step	Procedure	Responsibility	Target Date	Date Done
1.	Decide upon general area of study	Student (In consultation with major professor)	First semester or before	_/_/_
2.	Propose steering committee (Memo by Chair of the Graduate Education Committee (CGEC) to Office of Instruction and Graduate Studies (OIGS).	Major professor (in consultation with student)	First semester	_/_/_
3.	Student and steering committee determine appropriate coursework. Student completes Form 3B. Student, major professor, and steering committee sign form (which must be approved by CGEC and OIGS).	Student	First semester	_/_/_
4.	Meet with steering committee to review study plan (and if necessary, revise Form 3B).	Student	Second semester	_/_/_
5.	Submit thesis to major professor for review	Student	Beginning of final semester	_/_/_
6.	Request appointment of defense committee and committee chair (Form 5B) through CGEC to OIGS)	Student (major professor)	At one (1) month before proposed defense date	_/_/_
7.	Schedule defense date with committee (including committee chair) and notify OIGS	Student	After Major Professor approves draft thesis	_/_/_
8.	Present Capstone Seminar	Student	Prior to defense	_/_/_
9.	Submit thesis and abstract in final form to defense committee	Student	Fourteen (14) days before scheduled defense date	_/_/_
10.	Defend thesis (Form 5-E to OIGS)	Student (committee chair)	As scheduled	_/_/_
11.	Submit corrected thesis and abstract to major professor and defense chairman for final approval and signing	Student	As scheduled at defense	_/_/_
12.	Submit thesis to FNRM Chair for approval and signing	Student	Before graduation	_/_/_
13.	Submit copies of thesis to OIGS for signatures and binding	Student	Before graduation	_/_/_
14.	Certify completion of all requirements (Form 9, through CGEC to OIGS)	Major Prof.	Before graduation	_/_/_