Master of Science in Forestry

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The Master of Science in Forestry program requires you to successfully complete a thesis within the field of forestry and to select a minor. It emphasizes the resources of North Carolina and the southern United States, but candidates may also address forestry problems throughout North America or choose an area of study that leverages FER's expertise in tropical pine species and other international arenas.

In general, the Master of Science in Forestry (MS-Forestry) degree requires that a student develop and conduct a research project, then present their methodologies and results of the test or experiment as a thesis. The MS-Forestry degree is the preferred track for students who are interested in pursuing a Ph.D. or who anticipate conducting or reviewing research in their future work. The degree requires a minimum of 30 credits, following all rules of the Graduate School. Two courses are required, FOR 601 (Seminar) and FOR 603 (Research Methods in Forestry and Environmental Resources).

MS-Forestry students can focus on topics ranging from basic scientific inquiry to broader applied management issues. Degrees are available in wide array of areas, including:

- Forest genetics and tree breeding,
- Propagation of commercial trees species,
- Forest nurseries, nursery soils and regeneration,
- Biotechnology and gene transfer in commercial forest species,
- Applications of genomic science,
- All facets of forest management and operations,
- Forest economics,
- Forest nutrition,
- Hardwoods,
- International forestry,
- Restoration ecology,
- Silviculture, and
- Woodlots.

Many NC State MS-Forestry graduates have gone to work in the international forestry industry. Others have enjoyed academic or field careers, accepted positions with public and private environmental agencies, started their own companies or continued their studies.

Sample Thesis Topics

Past thesis topics for MS-Forestry students at NC State include:

- The effect of retention trees on the growth of Norway spruce,
- European Union wood biomass consumption for energy purposes and its influence on Southeastern United States' forest market and carbon storage,
- Tropical pine hybrid verification using single nucleotide polymorphisms (SNPs) marker technology: case studies and applications to the forestry industry,
- Geographical variation of cold hardiness in Pinus patula provenances and genetic inheritance of cold hardiness in Pinus patula x Pinus tecunumanii hybrids,
- Aggregate implications of theoretical forest landowner behavior: an agent-based modeling approach,
- The variability of throughfall in an urban watershed,
- Response of a six-year-old naturally regenerated upland hardwood stand to release and fertilization treatments in the North Carolina Piedmont, and
- Factors affecting the rooting of Fraser fir and Virginia pine stem cuttings.

For the full text of these dissertations as well as a look at other topics FER graduate students have pursued, please visit the Electronic Thesis and Dissertation Library of the NC State Graduate School.
Key Contacts

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Declaring A Minor

You must declare a minor as part of your MS-Forestry program. A minor may be declared within any established curriculum at NCSU or as “interdisciplinary minor.” A minor generally consists of at least nine graduate credits approved by your advisory committee’s minor faculty member. The courses must be taken during your degree program and all must be within a given curriculum or among the appropriate departments to satisfy a logical interdisciplinary minor.

For More Information

For more information on admission and degree requirements, tuition costs and financial aid plus other related topics, please explore the links at left.