

FOREST RESOURCES AND CONSERVATION

Program Information

Director: Terrell "Red" Baker III

Graduate Coordinator: T.V. Stein

Since 1937 the Change to School of Forest, Fisheries and Geomatics Sciences has prepared students for professional careers caring for natural resources. We emphasize the role of people in managing both terrestrial and aquatic systems, to produce the myriad of benefits and services they provide. Our faculty have a broad range of interests, including ecology, economics/policy, and recreation/education, and are united by an interest in environmental resources, rather than by traditional academic discipline. The School is composed of three programmatic areas: Fisheries and Aquatic Sciences, Forest Resources and Conservation and Geomatics which is a concentration within the Forest Resources and Conservation major. These programs offer seven different degree options (including two professional masters degrees), as well as concentrations and certificates in a diversity of specific areas. Minimum requirements for these degrees are given in the Graduate Degrees (<http://gradcatalog.ufl.edu/graduate/degrees/>) section of this catalog.

The SFFGS offers graduate programs leading to the Master of Forest Resources and Conservation (professional, non-thesis), Master of Science (thesis and non-thesis), and Doctor of Philosophy degrees in Forest Resources and Conservation. The Master of Science non-thesis degree may be taken entirely online. Minimum requirements for these degrees are given in the Graduate Degrees (<http://gradcatalog.ufl.edu/graduate/degrees/>) section of this catalog.

The Forest Resources and Conservation program prepares students to work with the ecological, economic, and social aspects of natural resources, including the management of spatial information gathered through traditional surveying as well as remote sensing. Faculty have a wide variety of specializations, including fire ecology, land tenure, tree genetics, recreation management, environmental education, geographic information systems, silviculture, forest economics, and environmental policy. Further information, including specific degree options, faculty biographies, and information on the admissions process, is available at: <https://ffgs.ifas.ufl.edu/>

Degrees Offered

Degrees Offered with a Major in Forest Resources and Conservation

- Doctor of Philosophy
 - without a concentration
 - concentration in Agroforestry
 - concentration in Ecological Restoration
 - concentration in Geographic Information Systems
 - concentration in Geomatics
 - concentration in Hydrologic Sciences
 - concentration in Natural Resource Policy and Administration
 - concentration in Tropical Conservation and Development

- concentration in Toxicology
- concentration in Wetland Sciences
- Master of Forest Resources and Conservation
 - without a concentration
 - concentration in Agroforestry
 - concentration in Geographic Information Systems
 - concentration in Geomatics
 - concentration in Natural Resource Policy and Administration
 - concentration in Tropical Conservation and Development
 - concentration in Wetland Sciences
- Master of Science
 - without a concentration
 - concentration in Agroforestry
 - concentration in Ecological Restoration
 - concentration in Geographic Information Systems
 - concentration in Geomatics
 - concentration in Hydrologic Sciences
 - concentration in Natural Resource Policy and Administration
 - concentration in Tropical Conservation and Development
 - concentration in Wetland Sciences

Requirements for these degrees are given in the Graduate Degrees (<http://gradcatalog.ufl.edu/graduate/degrees/>) section of this catalog.

Courses

School of Forest Resources and Conservation Courses

Geomatics Concentration Courses

Code	Title	Credits
GIS 6103	GIS Programming and Customization	3
GIS 6116	Geographic Information Systems Analysis	3
SUR 5365	Digital Mapping	3
SUR 5385	Remote Sensing Applications	3
SUR 5386	Image Processing for Remote Sensing	3
SUR 5525	Least Squares Adjustment Computations	3
SUR 6395	Topics in Geographic Information Systems	3
SUR 6535	GPS-INS Integration	3
SUR 6905	Special Problems in Geomatics	1-6
SUR 6934	Topics in Geomatics	1-4

Fisheries and Aquatic Sciences Program Courses

Code	Title	Credits
FAS 5015	Aquaculture I	3
FAS 5203C	Biology of Fishes	4
FAS 5255	Diseases of Warmwater Fish	3
FAS 5276C	Field Ecology of Aquatic Organisms	4
FAS 5335C	Applied Fisheries Statistics	4
FAS 5407	Biology of Fishery and Aquaculture Invertebrates	3
FAS 5901	Scientific Thinking in Ecology	2
FAS 6154	Marine Adaptations: Environmental Physiology	3
FAS 6165	Fish and Crustacean Nutrition	3
FAS 6176	Algae Biology and Ecology	3
FAS 6256	Fish and Aquatic Invertebrate Histology	3
FAS 6272	Marine Ecological Processes	3
FAS 6273	Trophic Ecology of Fishes	3

FAS 6337C	Fish Population Dynamics	4
FAS 6339C	Advanced Quantitative Fisheries Assessment	4
FAS 6355C	Fisheries Management	4
FAS 6408	Aquaculture II	3
FAS 6416	Spatial Ecology and Modeling of Fish Populations	2
FAS 6905	Individual Study	1-6
FAS 6910	Supervised Research	1-5
FAS 6932	Special Topics in Fisheries and Aquatic Sciences	1-4
FAS 6933	Graduate Symposium	1
FAS 6935	Contemporary Problems in Fisheries and Aquatic Sciences	2
FAS 6940	Supervised Teaching	1-5
FAS 6971	Research for Master's Thesis	1-15
FAS 7979	Advanced Research	1-12
FAS 7980	Research for Doctoral Dissertation	1-15

Forest Resources and Conservation Program Courses

Code	Title	Credits
FNR 5072C	Environmental Education Program Development	3
FNR 5335	Agroforestry	3
FNR 5608	Research Planning	3
FNR 6061	Conflict and Collaboration in Natural Resources	3
FNR 6560	Intro to Bayesian Statistics for Life Sciences	3
FNR 6564	Ecology and Restoration of Loblolly Pine Ecosystems	3
FOR 5157	Forest Productivity and Health	3
FOR 5159	Forest Information Systems	3
FOR 5161	Watershed Management and Restoration	3
FOR 5435	Policy and Economics of Natural Resources	3
FNR 6628	Conservation Behavior	3
FNR 6669	Forest Ecosystem Health	3
FOR 6005	Analysis of Forest Ecosystems	3
FOR 6151	Simulation Analysis of Forest Ecosystems	3
FOR 6154	Silviculture: Concepts and Application	3
FOR 6156	Tropical Forestry	3
FOR 6164	Fire Paradigms	3
FOR 6170	Physiology of Forest Trees	3
FOR 6215	Natural Resource Economics and Valuation	3
FOR 6340	Community Forest Management	3
FOR 6543	Landscape Planning for Ecotourism	3
FOR 6628	Research Problems in Forest Resources and Conservation	1-6
FOR 6665	Supervised Research	1-5
FOR 6905	Seminar	1
FOR 6910	Topics in Forest Resources and Conservation	1-4
FOR 6933	Supervised Teaching	1-5
FOR 6934	Research for Master's Thesis	1-15
FOR 6940	Advanced Research	1-12
FOR 6971	Research for Doctoral Dissertation	1-15
FOR 7979	Plant Molecular Biology and Genomics	3
PCB 5530	Plant Cell and Developmental Biology	3
PCB 6528	Introduction to Quantitative Genetics	3
PCB 6555	Geospatial Application of UASs	3
SUR 6377		

SUR 6502C	Foundations of UAS Mapping	3
SUR 6940C	Practicum in UAS Mapping	3

College of Agricultural and Life Sciences Courses

Code	Title	Credits
ALS 5156	Agricultural Ecology Principles and Applications	3
ALS 5905	Individual Study	1-4
ALS 5932	Special Topics	1-4
ALS 6046	Grant Writing	2
ALS 6166	Exotic Species and Biosecurity Issues	3
ALS 6921	Colloquium on Plant Pests of Regulatory Significance	1
ALS 6925	Integrated Plant Medicine	4
ALS 6931	Plant Medicine Program Seminar	1
ALS 6935	Topics in Biological Invasions	3
ALS 6942	Principles of Plant Pest Risk Assessment and Management	3
ALS 6943	Internship in Plant Pest Risk Assessment and Management	1-10
ANS 6936	Graduate Seminar in Animal Molecular and Cell Biology	1-2
BCH 5045	Graduate Survey of Biochemistry	4
STA 6093	Introduction to Applied Statistics for Agricultural and Life Sciences	3
STA 6329	Matrix Algebra and Statistical Computing	3

Student Learning Outcomes

Forest resources & Conservation (PHD)

SLO 1 Knowledge
Describes and explains theories and concepts in major-specific and related subject matter areas relevant to the individualized focus of the degree program

SLO 2 Skills
Critically evaluates literature, analyzes and synthesizes information, applies experimental and/or descriptive research methodologies, creates new knowledge through discovery, and effectively communicates information

SLO 3 Professional Behavior
Displays honest, ethical, and culturally sensitive behavior and practices in all scholarly activities including teaching, research, and outreach

Forest resources & Conservation (MFRC)

SLO 1 Knowledge
Describes and explains theories and concepts in major-specific and related subject matter areas relevant to the individualized focus of the degree program

SLO 2 Skills
Critically evaluates literature, analyzes and synthesizes information, applies experimental and/or descriptive research methodologies, creates new knowledge through discovery, and effectively communicates information

SLO 3 Professional Behavior
Displays honest, ethical, and culturally sensitive behavior and practices in all scholarly activities including teaching, research, and outreach

Forest Resources & Conservation (MS)

SLO 1 Knowledge

Describes and explains theories and concepts in major-specific and related subject matter areas relevant to the individualized focus of the degree program

SLO 2 Skills

Critically evaluates literature, analyzes and synthesizes information, applies experimental and/or descriptive research methodologies, creates new knowledge through discovery, and effectively communicates information

SLO 3 Professional Behavior

Displays honest, ethical, and culturally sensitive behavior and practices in all scholarly activities including teaching, research, and outreach