



University Council

March 10, 2023

UNIVERSITY CURRICULUM COMMITTEE – 2022-2023

Susan Sanchez, Chair

Agricultural and Environmental Sciences – Kylee Duberstein

Arts and Sciences – Jonathan Haddad (Arts)

Rodney Mauricio (Sciences)

Business – Jim Carson

Ecology – Amanda Rugenski

Education – David Jackson

Engineering – Kun Yao

Environment and Design – Ashley Steffens

Family and Consumer Sciences – Sheri Worthy

Forestry and Natural Resources – Joseph Dahlen

Journalism and Mass Communication – Dodie Cantrell-Bickley

Law – Randy Beck

Pharmacy – Michelle McElhannon

Public and International Affairs – Rongbin Han

Public Health – Pamela Orpinas

Social Work – Harold Briggs

Veterinary Medicine – Shannon Hostetter

Graduate School – Christof Meile

Ex-Officio – Provost S. Jack Hu

Undergraduate Student Representative – Kate Lindgren

Graduate Student Representative – Yehia Abdelsamad

Dear Colleagues:

The attached proposals from the Warnell School of Forestry and Natural Resources to offer a new Area of Emphasis in Wildlife Science under the Master of Natural Resources (M.N.R.) and the major in Forestry and Natural Resources (M.S., Ph.D.) will be agenda items for the March 17, 2023, Full University Curriculum Committee meeting.

Sincerely,

Susan Sanchez, Chair

cc: Provost S. Jack Hu

Dr. Marisa Pagnattaro

PROPOSAL FOR AN AREA OF EMPHASIS

Date: November 22, 2022

School/College: Warnell School of Forestry and Natural Resources

Department/Division: Warnell School of Forestry and Natural Resources

Program (Major and Degree): Master of Natural Resources (M.N.R.)

Area of Emphasis Title: Wildlife Science

CIP: 03060101

Which campus(es) will offer this program? Athens

Proposed Effective Date: Fall 2023

1. Area of Emphasis Description:

The Area of Emphasis in Wildlife Science will recognize work under the Master of Natural Resources (M.N.R.) focused on wildlife. This designation will benefit students as they seek employment in positions such as those in the U.S. Fish and Wildlife Service, the U.S. Forest Service, and the U.S. Geological Survey, which look for the specificity in title.

The Area of Emphasis in Wildlife Science under the Master of Natural Resources (M.N.R.) requires completion of a minimum of 15 credit hours.

Required Courses (10-14 hours)

- ECOL(FANR) 6220, Foundations of Restoration Ecology (3 hours)
OR
FANR(WILD) 6820, Human Dimensions of Natural Resources and Wildlife Conservation (3 hours)
- FANR 7620-7620L, GIS Applications for Natural Resources (3 hours)
- FANR 8060, Forestry and Natural Resources Seminar Series (1 hour)
- WILD 6110, Wildlife Science (3 hours) and WILD 6110L, Wildlife Science Lab (1 hour)*
OR
WILD 6650-6650L, Wildlife Techniques Field Camp (4 hours)*
- WILD(FISH) 8001, Principles of Fisheries and Wildlife Management (3 hours) - **NEW**

**Students who completed WILD 4700-4700L or an equivalent course at another institution may be exempted from this requirement, but must replace this course with another WILD course at the graduate level.*

Elective Courses (1-5 hours):

- ANTH(ECOL)(WILD) 6746, Primate Conservation (3 hours)
- ANTH(PSYC)(ECOL)(WILD) 6744, Primate Behavior (3 hours)
- ECOL 6000, Population and Community Ecology (3 hours)
- ECOL 6010, Ecosystems Ecology (3 hours)
- ECOL 6080, Principles of Integrative Conservation and Sustainability (3-6 hours)
- ECOL(BIOL) 6150-6150L, Population Biology of Infectious Diseases (4 hours)
- ECOL(FISH)(WASR) 6310, Freshwater Ecosystems (3 hours)
- ECOL(FISH)(WASR) 6310L, Freshwater Ecosystems Lab (1 hour)
- ECOL(FANR) 6220, Foundations of Restoration Ecology (3 hours)

- ECOL 6450-6450L, Spatial Ecology (3 hours)
- ECOL 6500, Evolutionary Ecology (4 hours)
- ECOL 6540, Behavioral Ecology (3 hours)
- ECOL 6570, Comparative Biodiversity and Land Conservation Policy: Costa Rica and the United States (4 hours)
- ECOL 6640, Animal Cognition (3 hours)
- ECOL 6800-6800L, Statistical Thinking in Ecology (3 hours)
- ECOL 8000, Topics in Modern Ecology (3 hours)
- ECOL 8020L, Research Modeling (3 hours)
- ECOL 8145, Life History Evolution (3 hours)
- ECOL 8220, Stream Ecology (2 hours)
- ECOL 8300, Behavioral Ecology (3 hours)
- ECOL(PBIO)(WILD) 8310, Population Ecology (3 hours)
- ECOL(WILD) 8322, Concepts and Approaches in Ecosystem Ecology (4 hours)
- ECOL(PBIO)(WILD) 8325-8325L, Modeling Population Ecology (4 hours)
- ECOL 8730, Environmental Policy (3 hours)
- ECOL(WILD) 8750, Endangered Species Practicum (4 hours)
- ENTO(ECOL)(PBIO)(FANR) 8150, Wetland Ecology (3 hours)
- ENTO(ECOL)(PBIO)(FANR) 8150L, Wetland Ecology Laboratory (1 hour)
- EPID(ECOL)(IDIS) 8515 or EPID(ECOL)(IDIS) 8515E, Modeling Infectious Diseases (4 hours)
- FANR 6040, LaTeX for Writing Science (1 hour)
- FANR 6350, Conservation Genetics (3 hours)
- FANR 6444S, Foundations of Environmental Education (3 hours)
- FANR 6800W, Renewable Resource Policy (2 hours)
- FANR(WILD) 6820, Human Dimensions of Natural Resources and Wildlife Conservation (3 hours)
- FANR 7600, Landscape Genetics (2 hours)
- FANR 7630, Statistical Software for Natural Resource Management (1-3 hours)
- FANR 7640-7640L, Unmanned Aerial Systems' (UAS) Role in Natural Resource Management (3 hours)
- FANR(BINF)(GENE) 8140, Functional Genomics (3 hours)
- FANR 8200, Scientific Research in Forestry and Natural Resources (3 hours)
- FANR 8300-8300L, Scientific Communication in Forestry and Natural Resources (3 hours)
- FANR 8360, Quantitative Survey Design and Analysis (3 hours) - **NEW**
- FANR 8400, Advanced Spatial Analysis for Natural Resources (1-4 hours)
- FANR 8500, Agent-Based Modeling in Ecology and Management (3 hours)
- FANR 8700, Social and Political Theory for Natural Resource Management (3 hours)
- FANR(COFA)(FISH)(FORS)(GISC)(PRTM)(WASR)(WILD) 8950, Special Topics in Forestry and Natural Resources (1-4 hours)
- FANR 9200, Applied Research in Forestry and Natural Resources (1-6 hours)
- FISH(EHSC)(ECOL)(ENTO)(VPHY)(PHRM) 8350, Fundamentals of Ecotoxicology (3 hours)
- FISH(ECOL)(MARS)(WILD) 6550-6550L, Sustainable Aquaculture (4 hours)
- IDIS(ECOL) 8240, Vector-borne Diseases in a Changing World (2 hours)
- JURI(FANR)(ECOL) 6810, Natural Resources Law (3 hours)
- PBIO(ECOL) 6520, Plant-Animal Interactions (3 hours)
- PBIO(FORS)(ECOL) 8770, Communities and Ecosystems (3 hours)
- PBIO(WILD)(ECOL) 8410, Plant Population and Community Ecology (4 hours)
- WASR(CRSS)(ECOL)(ENGR)(GEOG)(GEOL) 6700L, Hydrology, Geology, and Soils of Georgia (3 hours)
- WILD(ECOL) 6040-6040L, Herpetology (4 hours)
- WILD 6050, Mammalogy (3 hours)
- WILD 6050L, Mammalogy Laboratory (1 hour)
- WILD 6060-6060L, Ornithology (4 hours)

- WILD 6280, Field Study in Natural History (3 hours)
- WILD 6400, Wildlife Physiology and Nutrition (3 hours)
- WILD 6500, Nongame and Endangered Species Management (3 hours)
- WILD(ECOL)(POPH) 6575, Conservation Medicine (6 hours)
- WILD 6650-6650L, Wildlife Techniques Field Camp (4 hours)
- WILD 6700, Techniques in Wildlife Population Management (3 hours)
- WILD 6700L, Techniques in Wildlife Population Management Laboratory (1 hour)
- WILD 6900, Wildlife Damage Management (2 hours)
- WILD 6900L, Wildlife Damage Management Lab (1 hour)
- WILD(POPH) 7100, Principles and Management of Wildlife Diseases (3 hours)
- WILD 7200, International Issues in Wildlife Conservation (3 hours)
- WILD 7350, Wetland Management for Wildlife (2 hours)
- WILD 7350L, Wetland Management for Wildlife Laboratory (1 hour)
- WILD 7700, Applied Population Dynamics (2 hours)
- WILD 7700L, Applied Population Dynamics Lab (1 hour)
- WILD(FISH) 7750E, Statistical Software for Fish and Wildlife Population Analysis (3 hours)
- WILD 7980, Wildlife Ecology and Management Problems (1-4 hours)
- WILD 8110, Inference, Causation, and Evidence in Natural Resource Science (1 hour) - **NEW**
- WILD(FISH) 8300, Wildlife and Fisheries Seminar (1-2 hours)
- WILD 8320, Human-Wildlife Conflict Resolution (2 hours)
- WILD 8321E, Wildlife Habitat and Movement Modeling (4 hours)
- WILD(FISH) 8327, Spatial Capture-Recapture (2 hours)
- WILD(ECOL) 8330, Landscape Ecology (3 hours)
- WILD(FISH) 8360, Quantitative Conservation Science (3 hours) - **NEW**
- WILD(FISH) 8370-8370L, Bayesian Modeling for Conservation Science (3 hours)
- WILD(FISH) 8390, Inference for Models of Fish and Wildlife Population Dynamics (3 hours)
- WILD 8500, Wildlife Disease Ecology: Investigation and Management (3 hours)
- WILD 8980, Wildlife Ecology and Management Problems (1-4 hours)

2. Major Requirements:

Master of Natural Resources students within the Wildlife Sciences area of emphasis must complete a minimum of 33 course credit hours, 12 of which must be listed with the COFA, FANR, FISH, FORS, GISC, PRTM, or WILD prefix and 9 of which must be outside the student's primary study area. No thesis is required.

3. Approvals:



Department Head



Dean of School/College

PROPOSAL FOR AN AREA OF EMPHASIS

Date: November 22, 2022

School/College: Warnell School of Forestry and Natural Resources

Department/Division: Warnell School of Forestry and Natural Resources

Program (Major and Degree): Forestry and Natural Resources (M.S.)

Area of Emphasis Title: Wildlife Science

CIP: 03060101

Which campus(es) will offer this program? Athens

Proposed Effective Date: Fall 2023

1. Area of Emphasis Description:

The Area of Emphasis in Wildlife Science will recognize work under the major in Forestry and Natural Resources (M.S.) focused on wildlife. This designation will benefit students as they seek employment in positions such as those in the U.S. Fish and Wildlife Service, the U.S. Forest Service, and the U.S. Geological Survey, which look for the specificity in title.

The Area of Emphasis in Wildlife Science requires a minimum of 19 hours of coursework.

Required Courses (10 hours):

- FANR 6750-6750D, Experimental Methods in Forestry and Natural Resources Research (3 hours)
- FANR 8060, Forestry and Natural Resources Seminar Series (1 hour)
- FANR 8200, Scientific Research in Forestry and Natural Resources (3 hours)*
- WILD(FISH) 8001, Principles of Fisheries and Wildlife Management (3 hours) - **NEW**

**Students with demonstrated knowledge and masters-level mastery of the scientific method and research proposal development may be exempted from this course with permission of their graduate advisory committee. Mastery may be demonstrated by prior experience as a lead author on a publication or successful acquisition of a moderate to large grant such as a Graduate Research Fellowship Proposal. Exempted students must substitute a course with the COFA, FANR, FISH, FORS, GISC, PRTM, or WILD prefix.*

Elective Courses (Choose a minimum of 9 hours from the following):

- ANTH(ECOL)(WILD) 4746/6746, Primate Conservation (3 hours)
- ANTH(PSYC)(ECOL)(WILD) 4744/6744, Primate Behavior (3 hours)
- ECOL 6000, Population and Community Ecology (3 hours)
- ECOL 6010, Ecosystems Ecology (3 hours)
- ECOL 6080, Principles of Integrative Conservation and Sustainability (3-6 hours)
- ECOL(BIOL) 6150-6150L, Population Biology of Infectious Diseases (4 hours)
- ECOL(FANR) 6220, Foundations of Restoration Ecology (3 hours)
- ECOL(FISH)(WASR) 6310, Freshwater Ecosystems (3 hours)
- ECOL(FISH)(WASR) 6310L, Freshwater Ecosystems Laboratory (1 hour)
- ECOL 6450-6450L, Spatial Ecology (3 hours)

- ECOL 6500, Evolutionary Ecology (4 hours)
- ECOL 6540, Behavioral Ecology (3 hours)
- ECOL 6570, Comparative Biodiversity and Land Conservation Policy: Costa Rica and the United States (4 hours)
- ECOL 6640, Cognitive Ecology (*name change in progress to Animal Cognition*) (3 hours)
- ECOL 6800-6800L, Statistical Thinking in Ecology (3 hours)
- ECOL 8000, Topics in Modern Ecology (3 hours)
- ECOL 8020L, Research Modeling (3 hours)
- ECOL 8145, Life History Evolution (3 hours)
- ECOL 8220, Stream Ecology (2 hours)
- ECOL 8300, Behavioral Ecology (3 hours)
- ECOL 8730, Environmental Policy (3 hours)
- ENTO(ECOL)(PBIO)(FANR) 8150, Wetland Ecology (3 hours)
- ENTO(ECOL)(PBIO)(FANR) 8150L, Wetland Ecology Laboratory (1 hour)
- EPID(ECOL)(IDIS) 8515, Modeling Infectious Diseases (4 hours)
- FANR(COFA)(FISH)(FORS)(GISC)(PRTM)(WASR)(WILD) 5950, Special Topics in Forestry and Natural Resources (1-4 hours)
- FANR 6040, LaTeX for Writing Science (1 hour)
- FANR 6350, Conservation Genetics (3 hours)
- FANR 6444S, Foundations of Environmental Education (3 hours)
- FANR 6800W, Renewable Resources Policy (2 hours)
- FANR 7600, Landscape Genetics (2 hours)
- FANR 7620-7620L, GIS Applications for Natural Resources (3 hours)
- FANR 7630, Statistical Software for Natural Resource Management (1-3 hours)
- FANR 7640-7640L, Unmanned Aerial Systems' (UAS) Role in Natural Resource Management (3 hours)
- FANR(BINF)(GENE) 8140, Functional Genomics (3 hours)
- FANR 8300-8300L, Scientific Communication in Forestry and Natural Resources (3 hours)
- FANR 8360, Quantitative Survey Design and Analysis (3 hours) - **NEW**
- FANR 8400, Advanced Spatial Analysis for Natural Resources (1-4 hours)
- FANR 8500, Agent-Based Modeling in Ecology and Management (3 hours)
- FANR 8700, Social and Political Theory for Natural Resource Management (3 hours)
- FANR 9200, Applied Research in Forestry and Natural Resources (1-6 hours)
- FISH 6200, Aquatic Biology (3 hours)
- FISH 6200L, Aquatic Biology Lab (1 hour)
- FISH(ECOL)(MARS)(WILD) 6550-6550L, Sustainable Aquaculture (4 hours)
- FISH(EHSC)(ECOL)(ENTO)(VPHY)(PHRM) 8350, Fundamentals of Ecotoxicology (3 hours)
- IDIS(ECOL) 8240, Vector-borne Diseases in a Changing World (2 hours)
- JURI(FANR)(ECOL) 6810, Natural Resources Law (3 hours)
- PBIO(ECOL) 6520, Plant-Animal Interactions (3 hours)
- PBIO(FORS)(ECOL) 8770, Communities and Ecosystems (3 hours)
- WASR(CRSS)(ECOL)(ENGR)(GEOG)(GEOL) 6700L, Hydrology, Geology, and Soils of Georgia (3 hours)
- WILD(ECOL) 6040-6040L, Herpetology (4 hours)
- WILD 6050, Mammalogy (3 hours)
- WILD 6050L, Mammalogy Laboratory (1 hour)
- WILD 6060-6060L, Ornithology (4 hours)
- WILD 6110, Wildlife Science: Design, Sampling, Analyses, and Inferences for Fish and Wildlife Populations (3 hours)
- WILD 6110L, Wildlife Science Lab (1 hour)
- WILD 6280, Field Study in Natural History (3 hours)
- WILD 6400, Wildlife Physiology and Nutrition (3 hours)
- WILD 6500, Nongame and Endangered Species Management (3 hours)
- WILD(ECOL)(POPH) 6575, Conservation Medicine (6 hours)

- WILD 6650-6650L, Wildlife Techniques Field Camp (4 hours)
- WILD 6700, Techniques in Wildlife Population Management (3 hours)
- WILD 6700L, Techniques in Wildlife Population Management Laboratory (1 hour)
- WILD 6820, Human Dimensions of Natural Res. and Wildlife Conservation (3 hours)
- WILD 6900-6900L, Wildlife Damage Management (3 hours)
- WILD 7100, Principles and Management of Wildlife Diseases (3 hours)
- WILD 7200, International Issues in Wildlife Conservation (3 hours)
- WILD 7350-7350L, Wetland Management for Wildlife (3 hours)
- WILD 7700-7700L, Applied Population Dynamics (3 hours)
- WILD 7750E, Statistical Software for Fish and Wildlife Population Analysis (3 hours)
- WILD 7980, Wildlife Ecology and Management Problems (1-4 hours)
- WILD 8110, Inference, Causation, and Evidence in Natural Resource Science (1 hour) - **NEW**
- WILD 8300, Wildlife and Fisheries Seminar (1-2 hours)
- WILD 8310, Population Ecology (3 hours)
- WILD 8320, Human-Wildlife Conflict Resolution (2 hours)
- WILD 8321E, Wildlife Habitat and Movement Modeling (4 hours)
- WILD 8322, Concepts and Approaches in Ecosystem Ecology (4 hours)
- WILD 8325-8325L, Modeling Population Ecology (4 hours)
- WILD 8327, Spatial Capture-Recapture (2 hours)
- WILD 8330, Landscape Ecology (3 hours)
- WILD 8360, Quantitative Conservation Science (3 hours) - **NEW**
- WILD 8370-8370L, Bayesian Modeling for Conservation Science (3 hours)
- WILD 8390, Inference for Models of Fish and Wildlife Population Dynamics (3 hours)
- WILD 8410, Plant Population and Community Ecology (4 hours)
- WILD 8500, Wildlife Disease Ecology (3 hours)
- WILD 8750, Endangered Species Practicum (3 hours)
- WILD 8950, Special Topics in Forestry and Natural Resources (1-4 hours)
- WILD 8980, Wildlife Ecology and Management Problems (1-4 hours)
- WASR 6700L, Hydrology, Geology, and Soils of Georgia (3 hours)

2. Major Requirements:

Forestry and Natural Resources (M.S.) requires a minimum of 30 semester hours of graduate-level course work which must include FANR 6750-6750D, Experimental Methods in Forestry and Natural Resources Research, FANR 8200, Scientific Research in Forestry and Natural Resources, three hours of FANR 7300, Master's Thesis, and six hours of FANR 7000, Master's Research. Twelve hours must be listed with the COFA, FANR, FISH, FORS, GISC, PRTM, or WILD prefix.

3. Approvals:

Department Head

Dean of School/College

PROPOSAL FOR AN AREA OF EMPHASIS

Date: November 22, 2022

School/College: Warnell School of Forestry and Natural Resources

Department/Division: Warnell School of Forestry and Natural Resources

Program (Major and Degree): Forestry and Natural Resources (Ph.D.)

Area of Emphasis Title: Wildlife Science

CIP: 03060101

Which campus(es) will offer this program? Athens

Proposed Effective Date: Fall 2023

1. Area of Emphasis Description:

The Area of Emphasis in Wildlife Science will recognize work under the major in Forestry and Natural Resources (Ph.D.) focused on wildlife. This designation will benefit students as they seek employment in positions such as those in the U.S. Fish and Wildlife Service, the U.S. Forest Service, and the U.S. Geological Survey, which look for the specificity in title.

The Area of Emphasis in Wildlife Science under the major in Forestry and Natural Resources (Ph.D.) requires the completion of a minimum of 16 credit hours.

Required Courses (7 hours)

- FANR 6750-6750D*, Experimental Methods in Forestry and Natural Resources Research (3 hours)
- FANR 8060, Forestry and Natural Resources Seminar Series (1 hour)
- WILD(FISH) 8001, Principles of Fisheries and Wildlife Management (3 hours) - **NEW**

**Students with a demonstrated graduate-level mastery of the content covered in this course may exempt the course and replace the requirement with one of the following courses: FANR 8500, WILD 7700-7700L, WILD 7750E, WILD 8325-8325L, WILD 8327, WILD 8330, WILD 8360, WILD 8370-8370L, or WILD 8390.*

Elective Courses (Complete a minimum of 9 credit hours)

- ANTH(PSYC)(ECOL)(WILD) 6744, Primate Behavior (3 hours)
- ANTH(ECOL)(WILD) 6746, Primate Conservation (3 hours)
- ECOL 6000, Population and Community Ecology (3 hours)
- ECOL 6010, Ecosystem Ecology (3 hours)
- ECOL 6080, Principles of Integrative Conservation and Sustainability (3-6 hours)
- ECOL 6150-6150L, Population Biology of Infectious Diseases (4 hours)
- ECOL(FANR) 6220, Foundations of Restoration Ecology (3 hours)
- ECOL(FISH)(WASR) 6310, Freshwater Ecosystems (3 hours)
- ECOL(FISH)(WASR) 6310L, Freshwater Ecosystems Lab (1 hour)
- ECOL 6450-6450L, Spatial Ecology (3 hours)
- ECOL 6500, Evolutionary Ecology (4 hours)
- ECOL 6540, Behavioral Ecology (3 hours)
- ECOL 6570, Comparative Biodiversity and Land Conservation Policy: Costa Rica and the United

States (4 hours)

- ECOL 6640, Animal Cognition (3 hours)
- ECOL 6800-6800L, Statistical Thinking in Ecology (3 hours)
- ECOL 8000, Topics in Modern Ecology (3 hours)
- ECOL 8020L, Research Modeling (3 hours)
- ECOL 8145, Life History Evolution (3 hours)
- ECOL 8220, Stream Ecology (2 hours)
- ECOL 8300, Behavioral Ecology (3 hours)
- ECOL(PBIO)(WILD) 8310, Population Ecology (3 hours)
- ECOL(WILD) 8322, Concepts and Approaches in Ecosystem Ecology (4 hours)
- ECOL(PBIO)(WILD) 8325-8325L, Modeling Population Ecology (4 hours)
- ECOL 8730, Environmental Policy (3 hours)
- ECOL(WILD) 8750, Endangered Species Practicum (4 hours)
- ENTO(ECOL)(PBIO)(FANR) 8150, Wetland Ecology (3 hours)
- ENTO(ECOL)(PBIO)(FANR) 8150L, Wetland Ecology Laboratory (1 hour)
- EPID(ECOL)(IDIS) 8515 or EPID(ECOL)(IDIS) 8515E, Modeling Infectious Diseases (4 hours)
- FANR(COFA)(FISH)(FORS)(GISC)(PRTM)(WASR)(WILD) 5950, Special Topics in Natural Resources (1-4 hours)
- FANR 6040, LaTeX for Writing Science (1 hour)
- FANR 6350, Conservation Genetics (3 hours)
- FANR 6444S, Foundations of Environmental Education (3 hours)
- FANR 6800W, Renewable Resources Policy (2 hours)
- FANR(WILD) 6820, Human Dimensions of Natural Resources and Wildlife Conservation (3 hours)
- FANR 7600, Landscape Genetics (2 hours)
- FANR 7620-7620L, GIS Applications for Natural Resources (3 hours)
- FANR 7630, Statistical Software for Natural Resource Management (1-3 hours)
- FANR 7640-7640L, Unmanned Aerial Systems' (UAS) Role in Natural Resource Management (3 hours)
- FANR(BINF)(GENE) 8140, Functional Genomics (3 hours)
- FANR 8200, Scientific Research in Forestry and Natural Resources (3 hours)
- FANR 8300-8300L, Scientific Communication in Forestry and Natural Resources (3 hours)
- FANR 8360, Quantitative Survey Design and Analysis (3 hours) - **NEW**
- FANR 8400, Advanced Spatial Analysis for Natural Resources (1-4 hours)
- FANR 8500, Agent-Based Modeling in Ecology and Management (3 hours)
- FANR 8700, Social and Political Theory for Natural Resource Management (3 hours)
- FANR (COFA)(FISH)(FORS)(GISC)(PRTM)(WASR)(WILD) 8950, Special Topics in Forestry and Natural Resources (1-4 hours)
- FANR 9200, Applied Research in Forestry and Natural Resources (1-6 hours)
- FISH 6200, Aquatic Biology (3 hours)
- FISH 6200L, Aquatic Biology Lab (1 hour)
- FISH(ECOL)(MARS)(WILD) 6550-6500L, Sustainable Aquaculture (4 hours)
- FISH(EHSC)(ECOL)(ENTO)(VPHY)(PHRM) 8350, Fundamentals of Ecotoxicology (3 hours)
- IDIS(ECOL) 8240, Vector-borne Diseases in a Changing World (2 hours)
- JURI(FANR)(ECOL) 6810, Natural Resources Law (3 hours)
- PBIO(ECOL) 6520, Plant-Animal Interactions (3 hours)
- PBIO(FORS)(ECOL) ECOL 8770, Communities and Ecosystems (3 hours)
- PBIO(WILD)(ECOL) 8410, Plant Population and Community Ecology (4 hours)
- WASR(CRSS)(ECOL)(ENGR)(GEOG)(GEOL) 6700L, Hydrology, Geology, and Soils of Georgia (3 hours)
- WILD(ECOL) 6040-6040L, Herpetology (4 hours)
- WILD(BIOL) 6050 and WILD(BIOL) 6050L, Mammalogy and Mammalogy Laboratory (4 hours)
- WILD(ECOL) 6060-6060L, Ornithology (4 hours)

- WILD 6110, Wildlife Science: Design, Sampling, Analyses, and Inferences for Fish and Wildlife Populations (3 hours)
- WILD 6110L, Wildlife Science Lab (1 hour)
- WILD 6280, Field Study in Natural History (3 hours)
- WILD 6400, Wildlife Physiology and Nutrition (3 hours)
- WILD 6500, Nongame and Endangered Species Management (3 hours)
- WILD(ECOL)(POPH) 6575, Conservation Medicine (6 hours)
- WILD 6650-6650L, Wildlife Techniques Field Camp (4 hours)
- WILD 6700, Techniques in Wildlife Population Management (3 hours)
- WILD 6700L, Techniques in Wildlife Population Management Laboratory (1 hour)
- WILD 6900, Wildlife Damage Management (2 hours)
- WILD 6900L, Wildlife Damage Management Lab (1 hour)
- WILD(POPH) 7100, Principles and Management of Wildlife Diseases (3 hours)
- WILD 7200, International Issues in Wildlife Conservation (3 hours)
- WILD 7350, Wetland Management for Wildlife (2 hours)
- WILD 7350L, Wetland Management for Wildlife Laboratory(1 hour)
- WILD 7700, Applied Population Dynamics (2 hours)
- WILD 7700L, Applied Population Dynamics Lab (1 hour)
- WILD(FISH) 7750E, Statistical Software for Fish and Wildlife Population Analysis (3 hours)
- WILD 7980, Wildlife Ecology and Management Problems (1-4 hours)
- WILD 8110, Inference, Causation, and Evidence in Natural Resource Science (1 hour) - **NEW**
- WILD(FISH) 8300, Wildlife and Fisheries Seminar (1-2 hours)
- WILD 8320, Human-Wildlife Conflict Resolution (2 hours)
- WILD 8321E, Wildlife Habitat and Movement Modeling (4 hours)
- WILD(FISH) 8327, Spatial Capture-Recapture (2 hours)
- WILD(ECOL) 8330, Landscape Ecology (3 hours)
- WILD(FISH) 8360, Quantitative Conservation Science (3 hours) - **NEW**
- WILD(FISH) 8370-8370L, Bayesian Modeling for Conservation Science (3 hours)
- WILD(FISH) 8390, Inference for Models of Fish and Wildlife Population Dynamics (3 hours)
- WILD 8500, Wildlife Disease Ecology: Investigation and Management (3 hours)
- WILD 8980, Wildlife Ecology and Management Problems (1-4 hours)

2. Major Requirements:

Forestry and Natural Resources (Ph.D.) requires a minimum of 30 semester hours of graduate- level course work which must include 16 hours of 8000/9000 level coursework, three hours of FANR 9300, Doctoral Dissertation, and six hours of FANR 9000, Doctoral Research. Twelve hours must be listed with the COFA, FANR, FISH, FORS, GISC, PRTM, or WILD prefix.

3. Approvals:

Department Head

Dean of School/College

Documentation of Approval and Notification

Proposal: Area of Emphasis in Wildlife Science under Forestry and Natural Resources (M.N.R., M.S., Ph.D.)

College: Warnell School of Forestry and Natural Resources

Department: Warnell School of Forestry and Natural Resources

Proposed Effective Term: Fall 2023

Approvals:

- Warnell School of Forestry and Natural Resources Associate Dean, Dr. Robert Bringolf, 11/22/2022
- Warnell School of Forestry and Natural Resources Dean, Dr. Dale Greene, 11/22/2022
- Graduate School Associate Dean, Dr. Anne Shaffer, 1/18/2023

Use of Course Notifications:

- Anthropology Department Head, Dr. Ted Gragson, 1/31/2023
- Epidemiology and Biostatistics Department Head, Dr. Jose Cordero, 1/31/2023
- Infectious Diseases Department Head, Dr. Fred Quinn, 1/31/2023
- Plant Biology Department Head, Dr. John Burke, 1/31/2023
- Odum School of Ecology Associate Dean, Dr. Pejman Rohani, 1/31/2023