THE GRADUATE SCHOOL
Auburn University

Plan of Study

Date: 10/07/2025

Name: Rylee Tomey

Banner ID: 904-279-893

Department: Sch of Forestry & Wildlife Sci

Program: PhD Wildlife Sciences

Major: Wildlife-Graduate

Courses at Auburn University

(including Research and Dissertation 8990 hours)

Course Title	Prefix / Course #	Sem / Yr	Sem Hours	Notes
Research and Dissertation	WILD 8990	Summer 2025	1	
Research and Dissertation	WILD 8990	Fall 2025	1	8 remaining

10 Year time limit for PhD Coursework / 6 Year time limit for Master's Coursework

Total Semester Credit Hours	2

Title	CRN		Hrs	Description
Computational Statistics	21869	STAT 7650	3	This course covers the theory and practice of common algorithms used for simulation, computing, and optimization in Statistics.
Physiological Ecology	25377	BIOL 7490	3	A study of the physiological adaptations that allow animals to survive in unusual environments.
Conservation Planning	24817	NAT MNG 6630	3	Trains students in how to build plans for conservation and management of natural resources. Covers established processes associated with developing conservation plans while addressing human concerns. Includes how to establish measurable objectives, utilize data, frame problems, and determine uncertainty/risk.
Environmental Law	24755	FOR 6540	3	A review of environmental law including common and administrative law, land use, and Federal statues on water, air, toxins and wastes. May count either FORY 5540 or FORY 6540.
GIS Database Design and Analysis	24754	Forestry 6480	2	Geographic information system database planning, design, creation, management and analysis using a project oriented approach. Departmental approval.
Climate Change Impacts	28958	Environmental Science 6100	3	An overview of climate change for the non-climate scientist, how climate change affects global environments (forests, oceans, lakes, coasts, agriculture) in recent time periods and how historic records are used to study past climate change impacts.
Data Mining	26795	Computer Sci & Software En 6130	3	Advanced concepts, techniques, and applications of data mining with an algorithmic and computational focus, including data visualization, data warehousing, data cube computation, pattern and rule mining, classification, belief networks, clustering, outlier detection, graph matching, and parallel and distributed computation.

FALL

Introduction to Bayesian Modeling in Natural Resources - 18421 - WILD 7450 - 2
Wildlife Population Analysis - 11348 - WILD 7250 - 3

Agent-based modeling	19259	Forestry 7930	3	
Computational Biology Colloquium	18828	Biology 7800	2	Oral presentations and discussions of recent scientific publications, challenges, and opportunities within the field of computational biology. Hands-on experience in data analysis and presentation.
Secure Software Process	17622	Computer Sci & Software En 6700	3	Process models of the software life cycle as well as methods and tools for software development with a special emphasis on secure software engineering.
Quant Meth & Spatial Analysis	12808	Geography 6700	3	Applications of quantitative methods and spatial statistics to environmental, urban and economic systems and implementations of these techniques in GIS and statistical software.
Natural Resource Policy	11288	Forestry & Wildlife Sci. 6270	3	Examination of attitudes, philosophies and policies that govern management of the natural resource.
Applications Environmental Informatics	11299	Geospatial and Env Informatics 6430	3	This course emphasizes applications of earth observations to forestry, wildlife, environment and natural resources and covers both the technology and application of observing earth from space as well data acquired from airborne platforms.
Environmental Modeling	11298	Geospatial and Env Informatics 6360	3	Students will build models of environmental systems such as ecological, climatic, hydrologic, geochemical, and human systems, explore the basic concepts of systems modeling, and use models to test hypotheses and assumptions, evaluate system behavior, and predict changes in system behavior under different climate scenarios.
Tools and Challenges for the Modern Scientist	18421	Wildlife Sciences 7450	2	Contemporary tools used and challenges encountered by modern scientists and how these factors have altered the process of science. Specific topics will be crowdsourced and tailored to students' interests, but examples include: diversity in science, reproducibility crisis, open science practices, version control, online teaching, artificial intelligence, work expectations, ethics of internships and volunteer positions, citizen science, modern computing power, cloud computing, self promotion, and mental health in academia
Python Programming for the Environment	14438	Geospatial and Env Informatics 6800	4	Fundamental conceptual, methodological, and operational issues in Python programming with respect to environmental applications. Topics include Python programming concepts, scripting, and skills; data processing and management; data manipulation, visualization, and analysis; and connection to spatial data analysis