Our Graduate Program

The School of Natural Resources (SNR) at the University of Missouri (MU) is one of the leading educational institutions in the nation. SNR is Missouri’s and the Midwest’s only school with a comprehensive natural resources program emphasizing an integrated approach to natural resource management. SNR offers M.S. and Ph.D. degrees in Natural Resources with seven emphasis offerings that span the disciplines including: Water Resources; Agroforestry; Fisheries and Wildlife Sciences; Forestry; Human Dimensions of Natural Resources; Parks, Recreation and Tourism; and Soil, Environmental and Atmospheric Sciences. SNR is noted for its small classes, hands-on student research opportunities, active student organizations, high-tech classrooms, personalized advising and strong professional orientation.

The University of Missouri

The University of Missouri is a public, land-grant research university in Columbia, Missouri. It was founded in 1839 as the first public institution of higher education west of the Mississippi River. As the state’s largest university, it enrolled over 30,000 students, offering over 300 degree programs in 20 academic colleges. It is the flagship campus of the University of Missouri System. MU is one of the nation’s top research institutions and one of the 34 public universities that are members of the Association of American Universities. The MU Office of Graduate Studies also has information for prospective students at: https://gradstudies.missouri.edu/.

Academic Preparation

Students are eligible to apply from a variety of disciplines including biology, botany, chemistry, computer science, economics, environmental engineering, environmental policy, environmental studies, geography, horticulture, marketing, mathematics and sociology. Check with the program to ensure you are able to meet its requirements and deadlines. Individual emphasis may have requirements that are more rigorous. Check with the program to ensure you are able to meet its requirements and deadlines at: https://snr.missouri.edu/graduate-studies/

Applying to the Graduate Program

Admission as a graduate student in SNR is very competitive. Undergraduate GPA, test scores, field and research experience, and preparedness for the program overall are considered for admission. Our graduate program requires applicants to have earned a bachelor’s degree from a credited institution with a grade-point average (GPA) of at least 3.0 (on a 4.0 scale). Application to the program is only available online through the MU Graduate School website: https://gradstudies.missouri.edu/. We strongly recommend you to contact a potential faculty advisor before your application.

Funding for Graduate Study

The School offers generous fellowships to top tier applicants each year. A majority of our students are funded through research assistantships (RA) or teaching assistantships (TA). We also provide tuition waivers to currently enrolled funded students, and some students choose to enroll without funding. If you apply by the application deadline, you will be automatically considered for all of our funding options—there is no additional paperwork to complete.

Diversity at Mizzou

We strive to promote scientific excellence in our research, teaching and service missions. We recognize that excellence in science happens only in diverse and inclusive environments. We are committed to promoting diversity in our faculty, staff and students, and we strongly believe it makes us a better school. Our diversity efforts are closely aligned and collaborative with those of the College of Agriculture, Food, and Natural Resources and the University of Missouri.

School of Natural Resources

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About the School of Natural Resources

The SNR is home to some of the oldest natural resource programs in the US. The Department of Soils was formed at MU in 1914. The Fisheries and Wildlife Program was established in 1937. The Department of Forestry was established at MU in 1947 and was elevated to the status of School of Forestry in 1957. The Department of Atmospheric Science was formed in 1967. The Department of Parks, Recreation and Tourism was added in 1988. The School of Natural Resources was formed through a name change in 1989. In 2016, these departments were merged to enhance cross-disciplinary ties. With over 800 undergraduates, graduates and 50 faculty members, the school is noted for excellent education, strong professional orientation, active student organizations and outstanding advising.
Teaching and Research Faculty

AGUILAR, FRANCISCO X
ASSOCIATE PROFESSOR, FORESTRY, HDNR

ALOYSIUS, NOEL
ASSISTANT PROFESSOR, SEAS, HDNR

AMELON, SYBILL K.
COORDINATOR, ASSOCIATE PROFESSOR, FORESTRY

ANDERSON, STEPHEN H.
PROFESSOR, SEAS

AGERICH, ALBA
ASSISTANT PROFESSOR, WATER RESOURCES

BARDHAN, SOUCATA
ASSISTANT RESEARCH PROFESSOR, FORESTRY

BAFFAUT, CLAIRE
ASSOCIATE UNIVERSITY PROFESSOR, USDA-ARS, SEAS

BONNOT, THOMAS
ASSISTANT RESEARCH PROFESSOR, F&W

BYRN, MICHAEL
ASSISTANT PROFESSOR, F&W

CAL ZHEN
ASSISTANT RESEARCH PROFESSOR, AGROFORESTRY

COCCESHALL, MARK V.
COORDINATING UNIVERSITY PROFESSOR, AGROFORESTRY

DEY, DAN
U.S. COORDINATING PROFESSOR, FORESTRY

FOX, NEIL I.
PROFESSOR, SEAS, WATER RESOURCES

GOLD, MICHAEL
RESEARCH PROFESSOR, AGROFORESTRY

COMPER, MATTHEW E.
PROFESSOR, F&W

COYNE, KEITH W.
PROFESSOR, ASSOCIATE EXTENSION PROFESSOR, SEAS

CULMAN, PATRICK E.
ASSOCIATE PROFESSOR, FORESTRY

HALL, DAMON
ASSISTANT PROFESSOR, HDNR, PRT, WATER RESOURCES

HE, HONG S.
PROFESSOR, DIRECTOR OF GRADUATE STUDIES, FORESTRY

JOSE, SHIBU
PROFESSOR, DIRECTOR SNR, FORESTRY, AGROFORESTRY

KABRICK, JOHN
ASSISTANT COOPERATIVE PROFESSOR, FORESTRY

KITCHEN, NEWELL
ASSOCIATE PROFESSOR, F&W

KNAPP, BENJAMIN O.
ASSOCIATE PROFESSOR, FORESTRY

LARSEN, DAVID R.
PROFESSOR, FORESTRY

LI, CHRISTINE
ASSOCIATE PROFESSOR, PRT

LIN, CHUNG-HO
RESEARCH ASSOCIATE PROFESSOR, FORESTRY

LUPU, TONY
PROFESSOR, HDNR, SEAS

MARKET, PATRICK S.
PROFESSOR, HDNR, SEAS

MASENGALE, DANA
ASSOCIATE PROFESSOR, HDNR, PRT

MORGAN, MARK
ASSOCIATE PROFESSOR, HDNR, PRT

MOTAVALLI, PETER
PROFESSOR, SEAS

NILSON, CHARLES
ASSOCIATE PROFESSOR, F&W, HDNR

NOLTIE, DOUGLAS
ASSOCIATE PROFESSOR, F&W

NORTH, BEBECA
ASSOCIATE PROFESSOR, WATER RESOURCES

PAULKERT, CRAIG
COORDINATING UNIVERSITY PROFESSOR, F&W

PIERCE, ROBERT
ASSOCIATE EXTENSION PROFESSOR, F&W

PYLE, LAUREN
U.S. FOREST SERVICE, U.S. COORDINATING PROFESSOR, FORESTRY

ROTMAN, ROBIN
ASSISTANT PROFESSOR, HDNR

SADLER, JOHN
ASSOCIATE PROFESSOR, USDA-ARS SOIL SCIENTIST, SEAS

SHIFLEY, STEVE
COORDINATING UNIVERSITY PROFESSOR, FORESTRY

STAMBAUGH, MICHAEL C.
ASSOCIATE RESEARCH PROFESSOR, FORESTRY

STELZER, HANK
ASSOCIATE PROFESSOR, FORESTRY

STRAUCH, TRISTA A.
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THOMPSON, FRANK
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VAUGH, JENNIFER
ASSOCIATE TEACHING PROFESSOR, PRT

VAUGH, DAVID R.
ASSOCIATE TEACHING PROFESSOR, PRT

VEUM, KRISTEN
ASSOCIATE EDUCATION PROFESSOR, SEAS

WARTLEA, JUSTIN
ASSISTANT TEACHING PROFESSOR, PRT

WEBB, ELIZABETH
ASSOCIATE PROFESSOR, F&W

WEEDMAN, MITCH D.
ASSISTANT PROFESSOR, F&W

WHITTINGER, JOANNA
ASSOCIATE PROFESSOR, F&W

WILHELM, SONJA
ASSOCIATE PROFESSOR, HDNR

WOOD, JEFFREY
ASSISTANT RESEARCH PROFESSOR, SEAS, FORESTRY

SNR Graduate Research Emphasis Areas

Agroforestry Agroforestry, land use practices that integrate crops and/or livestock with trees and shrubs to obtain useful products or services, is gaining recognition as an integral component of multifunctional working landscapes. The program was developed to provide working professionals in agroforestry and related fields not readily available at other colleges and universities in the U.S. or abroad. Agroforestry emphasis area offers both a MS thesis and non-thesis option. The campus-based thesis option is designed for individuals who wish to gain the skills required to conduct original research resulting in an MS thesis and dissertations. The online non-thesis option is designed for professionals around the globe who already have an undergraduate degree in a related field. Examples of agroforesty research areas include genetic improvement of perennial crop species; tree and crop interaction; production of medicinals in forest; phytochemistry and phytoremediation; economics, market and consumer research on specialty crops; and social dimensions of agroforestry adoption.

Fisheries and Wildlife Sciences Fisheries and Wildlife Sciences (F&W) emphasis area trains students in diverse fields such as conservation biology, fisheries, ecologists, endangered species management, game and non-game applied ecology, disease ecology, movement ecology, wildlife habitat management, invasive species biology, and landscape ecology. Students are exposed to critical topics in basic and applied ecology and have extensive opportunities to combine field, laboratory and quantitative approaches to issues of regional, national and international importance. The goal is to prepare F&W students for diverse professional career with state, federal and international agencies, private conservation organizations, consulting firms, and academic institutions.

Forestry The Forestry emphasis area of the Natural Resources graduate program (MS, PhD) is designed to prepare students for careers with state and federal agencies, consulting firms, industry and academic institutions. Forestry is a flexible program covering many aspects of theoretical and applied science. Students are involved in research that relates to forest ecology, silviculture, forest fire, forest health, forest inventory and biometrics, and forest landscape modeling. Some examples of current research areas include forest restoration through prescribed fire and silvicultural treatments, modeling forest dynamics from stand to regional scales, and long-term monitoring and modeling of forest carbon dynamics. Students with backgrounds in chemistry, biology, engineering, environmental science, geography and other related fields are encouraged to apply.

Human Dimensions of Natural Resources The Human Dimensions of Natural Resources (HDNR) graduate emphasis area uses social and behavioral science theory to address contemporary issues in natural resource conservation and management. This program applies theory from the social and behavioral sciences, economics, law, policy studies, environmental education, environmental justice, and sustainability science to topics ranging from bird conservation in agricultural areas to climate change and sustainable cities. Research topics include urban wildlife, community forestry, hunting, fishing, physical activity in parks, climate change perceptions, and sustainability. HDNR provides opportunities for graduate students to conduct research that has direct impacts on people and nature within a social/cultural context.

Parks, Recreation and Tourism The Parks, Recreation and Tourism (PRT) graduate emphasis area focuses on dynamic interactions between people, places and activities by combining theory with practice to improve the quality of life for residents and visitors. This degree is designed to prepare students for management positions in the parks, recreation, tourism and sport profession or admission into doctoral programs. The final product is a thesis or a professional project, supervised by a graduate committee. Examples of current research areas include climate change impacts on outdoor recreation and tourism; natural resources interpretation and environmental education; health benefits of leisure and recreation; encouraging physically active lifestyles; sustainable tourism; and intercollegiate, interprofessional and professional sport organizations. To be competitive, applicants should identify a PRT graduate faculty member in their area of interest prior to admission into the program.

Soil, Environmental and Atmospheric Sciences The emphasis area in Soil, Environmental and Atmospheric Sciences (SEAS) is designed to prepare students for professional careers in research, teaching or application of basic concepts of soil, environmental and atmospheric sciences. Atmospheric science students participate in an area of research such as dynamic and physical meteorology, general circulation, global climate change, severe storms, remote sensing and applied climatology research. The program has a specialized computer data library that includes extensive long-term global and local observational records to support research. Environmental and soil science students may participate in research examining environmental quality, watershed management and water quality, pedology, soil chemistry and biochemistry, soil physics and conservation, or soil fertility and soil-plant relationships. The program has extensive analytical equipment and facilities for chemical, biological and physical analysis of water and earth materials as well as access to field sites to conduct research in agricultural, urban and undisturbed environments.

Water Resources The Water Resources emphasis area is an interdisciplinary graduate degree program within the School of Natural Resources. It encompasses all fields of natural sciences represented in the School and through collaboration, involves related expertise from throughout the University of Missouri and beyond. Participating faculty in the Water Resources emphasis area is engaged in both the scientific understanding of water resources (biological, chemical and physical) and its management, and the decision-making processes used to address competing societal values (social, economic and legal). One of the program's major global impacts is the training of highly qualified graduate professionals that are equipped to address many of the complex contemporary water resource problems around the world.