NATURAL RESOURCES (NRS)

NRS-600 Environment and Sustainability (3 credits)
Environment and Sustainability will introduce you to the field of sustainability science and explore the fundamental question of how human and natural systems interact. This course focuses on how the environment functions, but also addresses how humans interact with the environment. Using real-world issues and problems such as biodiversity loss, agriculture, and climate change, you will learn about the fundamental Earth systems on which we depend and how people interact and depend upon these systems. In this course, you will be assigned key readings spanning the disciplines of sociology, economics, environmental science, justice and ethics, governance, ecology, and health sciences. Each student will also assess their behavior and habits, looking for ways to reduce their personal impacts on the environment.

NRS-601 Environmental Conservation (3 credits)
In this course, students will learn key concepts in environmental conservation from a range of perspectives. Through readings, discussions, and other activities, students will become familiar with the philosophical and historical underpinnings which shape conservation today as well as real world applications to the difficult work of ensuring our planet remains habitable to our species. As part of the Health, Wellness, and Climate Administration MS, this course will offer both theories and examples for how conservation has health impacts and the way in which those impacts are exacerbated by climate change. The first half of the course is designed to get students familiar with key concepts in the field of conservation, and the second half is designed to help students apply that knowledge to current environmental issues. Students will have ample time and opportunity to discuss, research, and build their knowledge of conservation so that they can bring these important concepts to their work in the health professions and beyond.

NRS-602 Urban Ecology (3 credits)
Urban Ecology is an interdisciplinary and emerging field of research focused on the relationship between living organisms and their surroundings. Human-environment interactions have evolved significantly over time and have only recently been characterized by unprecedented urban growth and expansion. Historical approaches to urban development that have ignored the principles of urban ecology have produced and reproduced built environments that seemingly exist in isolation from the natural world. Although fundamentally transformed by human activity, ecological processes are still at work and serve a critical role in the regulation of urban ecosystems. In this course, students will be presented with a brief history of urban ecology and the ecological processes at play in cities. Core topics will highlight the impacts of human activity on the environment and the relationship between the environment, human health, and well-being. Finally, students will gain insight into a variety of strategies and tools that can be leveraged in urban settings to tackle social-ecological problems of the 21st century. Such problems include but are not limited to urban pollution, environmental degradation, climate change, environmental injustice, and social-ecological resilience.

NRS-603 Environmental Governance (3 credits)
Environmental governance refers to the different actors, institutions, decisions, and rules involved in managing the natural world. Addressing global environmental problems, such as climate change and (un)sustainable development, requires an understanding of existing environmental governance structures. In this course, students will learn about existing environmental governance structures and how they are shaped by historical, political, cultural, and geographical contexts. Core topics will focus on existing actors, decision-making processes, and approaches to environmental management. The rationale, strengths, and weaknesses associated with different approaches, including but not limited to state-led, market-based, and social movements, will be explored. Students will similarly assess the successes and shortcomings of existing sustainable development and climate-related treaties, agreements, and policies that govern human behavior and use common pool resources. Finally, emerging trends and strategies that can be leveraged to promote environmental justice and frameworks for evaluating environmental governance performance and capacity will be discussed.

NRS-604 Decision Making in Natural Resource Management (3 credits)
Making decisions about natural resources can be difficult - it may be the most difficult thing humans do! How do we decide what to use? Where to plant? What to take? What to leave? These questions only get more difficult when we understand the conflicting values and perspectives of stakeholders and decision makers. To put it simply, natural systems are complex and social systems make them even more complicated. In this course, students will learn the frameworks and concepts decision makers use to manage natural resources. Students will learn the many facets which need to be considered when making decisions, and various approaches to navigating the competing values of stakeholders. Students will gain scientific literacy by examining social-ecological systems through case studies which will highlight methods for monitoring natural resources and strategies for governing their use. Throughout the course, students will discuss the impact these decisions have on human health and look to a future in which such decisions are further complicated by an altered climate. The course is broken into two parts. For the first half of the semester, we will explore theories of sustainability and its related fields including resilience, conservation, and justice. In addition to understanding the theory behind natural resource management, students will also be acquainted with key factors shaping environmental decisions and their successful implementation including policy, economics, and communication. With this baseline knowledge in hand, students will turn to a set of case studies for the second half of the semester to apply what they have learned to real life situations.

NRS-650 Project Advisement: Development (1 credits)
Students registered for this course will meet individually with the Program Director to plan their projects. Please note: students can only enroll after completing fifteen credit hours with a 3.0 GPA or higher. The development stage of the project will result in a project proposal to be evaluated on a pass-fail basis. Students whose proposal passes will be registered for the implementation and evaluation stage, those who do not will have the opportunity to re-register for development. Students will have ample time to research a problem, develop their ideas, and receive feedback through the mentorship of the program director.

NRS-655 Project Advisement: Implementation and Evaulation (3 credits)
Once the project has been approved, the student may register for the three-credit Project Advisement: Implementation and Evaluation. There are three main components to the project: Design, Reflection, and Communication. Each serves as chance for students to highlight the knowledge and skills they acquire in the program. Projects will be evaluated on a pass-fail basis. A passing grade is required for completion of the MS. Students who do not pass will have the opportunity to re-enroll.

Prerequisite(s): Take NRS-650