DEPARTMENT OF NATURAL RESOURCES AND EARTH SCIENCES

Contacts: Dr. Mindy Yeager-Armstead, Chair **Website:** https://www.marshall.edu/cos/nres/

The Department of Natural Resources and Earth Sciences offers an active learning curriculum which engages students through classroom activities and a structured external undergraduate research program. By integrating the theoretical and applied sciences, we seek to prepare students for careers or advanced studies in management, conservation, protection, regulation, and restoration of natural resources; and the development of strategies for a sustainable future.

Geology focuses students' attention on the earth's composition, internal structure, processes, and history. Geologists are vital for supplying society with energy resources, building materials and water; protecting and remediating underground contamination of water and soil; and minimizing the impact of geologic hazards such as floods, landslides, and earthquakes.

Environmental Science merges concepts in geology, ecology, biology, chemistry and physics to provide students with a strong science foundation which forms the basis for understanding complex environmental issues. Integration of the human dimensions of resource use with conservation and management forms the foundation of the Natural Resources and Recreation Management program. The Specialty Agriculture program provides educational opportunities in agriculture, agribusiness, and agrotourism, covering both traditional and sustainable agricultural sciences.

All programs incorporate technology such as geographic information systems, remote sensing, and discipline specific instrumentation to provide students with state-of-the-art educational experiences, so they move confidently on to future endeavors. Additionally, all programs integrate understanding of laws and regulations relevant to aspects of conservation, protection, and management of natural resources preparing students for decision making in our modern world.

Programs

- Environmental Science, B.S. (http://catalog.marshall.edu/ undergraduate/programs-az/science/natural-resources-earthsciences/environmental-science-bs/)
- Environmental Science, Minor (http://catalog.marshall.edu/ undergraduate/programs-az/science/natural-resources-earthsciences/environmental-science-minor/)
- Geology, B.S. (http://catalog.marshall.edu/undergraduate/ programs-az/science/natural-resources-earth-sciences/geology-bs/)
- Geology, Minor (http://catalog.marshall.edu/undergraduate/ programs-az/science/natural-resources-earth-sciences/geologyminor/)
- Natural Resources and Recreation Management, B.S. (http://catalog.marshall.edu/undergraduate/programs-az/science/natural-resources-earth-sciences/natural-resources-recreation-management-bs/)
- Natural Resources and Recreation Management, Minor (http://catalog.marshall.edu/undergraduate/programs-az/science/

- natural-resources-earth-sciences/natural-resources-recreation-management-minor/)
- Specialty Agriculture, B.S. (http://catalog.marshall.edu/ undergraduate/programs-az/science/natural-resources-earthsciences/specialty-agriculture-bs/)

Interdisciplinary Program

 Sustainability, Minor (http://catalog.marshall.edu/undergraduate/ programs-az/science/interdisciplinary/)

Courses

- General Education Course

Geology

GLY 100 💎 Earth's Fury and Fortune

3 Credit hours

Introductory course for non-science/ science majors on societal impacts and mitigation of volcanic, earthquake, tsunami, landslide, flood, and climate change hazards, and origin and extraction of earth and energy resources.

Attributes: Natural Sciences, Core II Natural Sciences

Grade Mode: Normal Grading Mode

GLY 150 💎 Intro Oceanography 3 Credit hours

Origin of the seas and ocean basins. Processes of marine sedimentation and seawater chemistry. Dynamics of air/sea interaction, circulation, waves and tides. Description of coastal and other marine environments.

Attributes: Natural Sciences, Core II Natural Sciences

Grade Mode: Normal Grading Mode

GLY 150L 💎 Intro Oceanography Lab 1 Credit hour

A complementary laboratory to Introductory Oceanography, GLY 150. A series of exercises relating to bathymetry, accoustic profiling, marine charts, properties of seawater, sea floor sediments, currents, waves and tides.

Co-req: GLY 150

Attributes: Natural Sciences, Core II Natural Sciences

Grade Mode: Normal Grading Mode

GLY 170 Geology of the National Parks 3 Credit hours

An introduction to U.S. Parks and Monuments including earth materials, plate tectonic setting, formative geologic processes, and natural history; brief overview of history and purpose of the National Park Service.

Grade Mode: Normal Grading Mode

GLY 200 💎 The Dynamic Earth 3 Credit hours

An elementary but comprehensive physical geology course that deals with the earth's origin, composition, structures, tectonics and processes. Intended primarily for, but not limited to, the science major. 3 lec.

Attributes: Natural Sciences, Core II Natural Sciences

Grade Mode: Normal Grading Mode

GLY 201 The Earth Through Time 3 Credit hours

Introduction to 1) the principles used to interpret past physical, biologic, and chemical events archived in rock record, and 2)the history and development of the earth's lithosphere, biosphere, hydrosphere, and atmosphere.

Attributes: Natural Sciences, Core II Natural Sciences

GLY 210L 💎 Earth Materials Lab

1 Credit hour

An introduction to laboratory methods for the identification and classification of minerals, rocks, fossils and landscapes.

Attributes: Natural Sciences, Core II Natural Sciences

Grade Mode: Normal Grading Mode

GLY 211L R Earth Through Time Lab

1 Credit hour

Reconstruction of events in earth history based on physical characteristics and arrangement of rock layers and their fossil contens. 2 hr lab (PR: 210L; CR: GLY 201)

Attributes: No Textbook Required, Natural Sciences, Core II Natural

Grade Mode: Normal Grading Mode

GLY 212 Geologic Field Methods

3 Credit hours

Using the geology of West Virginia, introduces geologic field methods including geologic map interpretation and construction, cross-section preparation, qualitative and quantitative data collection, and ArcGIS mapping. Includes fields trips, laboratories.

Pre-req: (GLY 200 with a minimum grade of D or GLY 201 with a minimum grade of D) and (GLY 210L with a minimum grade of D or

GLY 211L with a minimum grade of D).

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

GLY 280 Special Topics 1-4 Credit hours

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

GLY 281 Special Topics 1-4 Credit hours

Attributes: Natural Sciences

Grade Mode: Normal Grading Mode

GLY 282 Special Topics 1-4 Credit hours

Attributes: Natural Sciences

Grade Mode: Normal Grading Mode

GLY 283 Special Topics 1-4 Credit hours

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

GLY 313 Structural Geology 4 Credit hours

Explores geologic structures: their history, 3-d relationships and the stresses that cause them. Structural deformation occurs at scales ranging form the continental to the atomic. Labs and weekend field trip.

Pre-reg: GLY 110 or GLY 200. **Attributes:** Natural Sciences Grade Mode: Normal Grading Mode

GLY 314 Mineralogy 4 Credit hours

Identification, classification, orgin, occurrences, and economic uses of minerals and their crystallographic forms. 3 lec-2 lab.

Pre-req: GLY 200 with a minimum grade of D and CHM 211 with a

minimum grade of D. Attributes: Natural Sciences Grade Mode: Normal Grading Mode

GLY 320L Geology Lab Techniques 2 Credit hours

Techniques of collection, preparation and analysis of mineral, rock and water samples, and the use of different instruments for obtaining quality data. Will also cover tools used for data interpretation.

Pre-req: GLY 200 (may be taken concurrently) with a minimum grade of D and GLY 210L (may be taken concurrently) with a minimum grade of D.

Concurrent PR: GLY 200 and GLY 210L Grade Mode: Normal Grading Mode

GLY 325 Stratigraphy & Sediment

4 Credit hours

Formation, organization, sequence, and correlation of sedimentary rocks; study of the orgin, transportation and deposition of rockforming sediments. 3 lec-2 lab.

Pre-req: GLY 201 with a minimum grade of D and GLY 211L with a

minimum grade of D. Attributes: Natural Sciences Grade Mode: Normal Grading Mode

GLY 330 Tectonics

3 Credit hours

Overview of tectonics theory and the processes at plate boundaries that form orogenic systems, continents and ocean basins. Students will read, discuss and present scientific literature.

Pre-req: GLY 200 and GLY 201 and GLY 210L and GLY 211L.

Grade Mode: Normal Grading Mode

GLY 410 Big Bend Field Excursion

2 Credit hours

Field trip to Big Bend National Park, Texas to study the structure, stratigraphy, igneous geology, metamorphic geology, paleontology and natural history of this national park.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

GLY 418 Invertebrate Paleontology

4 Credit hours

Taxonomy, morphology, and paleoecology of body and trace fossils representing the major invertebrate phyla; analysis and interpretation of faunal assemblages; evolution and extinction of species. (PR: GLY 201)

Pre-req: GLY 201 with a minimum grade of D and GLY 211L with a

minimum grade of D. Attributes: Natural Sciences

Grade Mode: Normal Grading Mode

GLY 420 Principles of Geochemistry

3 Credit hours

Application of chemical principles to geology. Topics include cosmochemistry; distribution of elements in minerals and rocks; aqueous solutions and water-rock interaction; radiometric age dating and stable isotope geology.

Pre-req: CHM 211 with a minimum grade of D and GLY 200 with a

minimum grade of D.

Grade Mode: Normal Grading Mode

GLY 421 Igneous& Metamorphic Petrology

Indentification and classification of igneous, and metamorphic rocks, their origin and occurrence; their geologic and economic importance. 3 lec-2 lab.

Pre-req: GLY 200 with a minimum grade of D and GLY 314 with a minimum grade of D.

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

GLY 423 Sedimentary Petrology

4 Credit hours

Microscopic description of minerals, textures, and fossils in sedimentary rocks, their classification, and interpretation of source area, depositional environment and post-depositional history. 3 lec-2 lab.

Pre-req: GLY 201.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

GLY 426 Applied Geophysics

3 Credit hours

Explore cutting-edge techniques to image Earth's hidden structures and dynamic processes. Apply seismic, gravity, magnetic, resistivity, and ground-penetrating radar methods to problems in environmental, engineering, archaeological, economic, and forensic geology.

Pre-req: GLY 200 with a minimum grade of D and GLY 210L with a minimum grade of D and MTH 229 with a minimum grade of D.

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

GLY 427 Fossil Fuels 4 Credit hours

Origin and distribution of coal, oil and gas, and methods of exploration and reserve evaluaton. 3 lec-2 lab.

Pre-req: GLY 200.

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

GLY 450 Geoarchaeology 4 Credit hours

Application of geological methods and principles to study of archaeological sites and contents. Focused on analysis of geological samples for interpretation of site matrix, site formation processes, and paleoenvironmental setting.

Pre-req: GLY 210L with a minimum grade of C and GLY 211L with a

minimum grade of C.

Grade Mode: Normal Grading Mode

GLY 451 Principles Geomorphology 4 Credit hours

Principles of identification and analysis of the world's surficial features in terms of stratigraphy, structure, processes, tectonics and time. 3 lec.

Pre-req: GLY 200 and GLY 210L.
Attributes: Natural Sciences
Grade Mode: Normal Grading Mode

GLY 455 Hydrogeology 3 Credit hours

The properties of water, the hydrologic cycle with emphasis on surface and groundwater processes, the uses, needs and problems associated

with water resources. 3 lec.

Pre-req: GLY 200 with a minimum grade of D and (MTH 132 with a minimum grade of D or MTH 229 with a minimum grade of D or

MTH 229H with a minimum grade of D).

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

GLY 455L Hydrogeology Laboratory 1 Credit hour

A two-hour laboratory of practical hydrogeologic problem solving. For non-majors, elective.

Pre-req: GLY 455 (may be taken concurrently) with a minimum grade

of D.

Concurrent PR: GLY 455
Attributes: Natural Sciences
Grade Mode: Normal Grading Mode

GLY 456 Environmental Geology 4 Credit hours

Consideration of risks posed by natural geo-hazards and from physical/chemical contamination of geologic media. (PR: GLY 200, GLY 210L or equivalent; Recommended: GLY 451)

Pre-req: GLY 200 with a minimum grade of D and GLY 210L with a

minimum grade of D. **Attributes:** Natural Sciences **Grade Mode:** Normal Grading Mode

GLY 457 Engineering Geology

4 Credit hours

Consideration of geotechnical problems faced by geologists and engineers. Major topics include mechanics and classification of soil and rock, and geotechnical aspects of groundwater.

Pre-req: GLY 200 with a minimum grade of D and GLY 210L with a minimum grade of D and (MTH 132 with a minimum grade of D or MTH 229 with a minimum grade of D).

Attributes: Natural Sciences
Grade Mode: Normal Grading Mode

GLY 480 Special Topics 1-4 Credit hours

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

GLY 481 Special Topics 1-4 Credit hours

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

GLY 482 Special Topics 1-4 Credit hours

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

GLY 483 Special Topics 1-4 Credit hours

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

GLY 485 Independent Study 1-4 Credit hours

Attributes: No Textbook Required, Natural Sciences

Grade Mode: Normal Grading Mode

GLY 486 Independent Study 1-4 Credit hours

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

GLY 487 Independent Study 1-4 Credit hours

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

GLY 488 Independent Study 1-4 Credit hours

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

GLY 491 💎 Capstone Experience

2-4 Credit hours

An independent study involving a research project or internship. Must be approved by Geology faculty. (PR: 20 hours of Geology coursework). **Attributes:** Capstone Course, Natural Sciences, Onsite Learning

Experience

Grade Mode: Normal Grading Mode

GLY 492 💎 Capstone Class

2 Credit hours

A seminar-type class on a multidisciplinary applied topic offered at the discretion of faculty to substitute for GLY 491. (PR: 20 hours of Geology coursework / consent of faculty).

Attributes: Capstone Course, Natural Sciences, Onsite Learning

Experience

Grade Mode: Normal Grading Mode

GLY 510 Big Bend Field Excursion

2 Credit hours

Field trip to Big Bend National Park, Texas to study the structure, stratigraphy, igneous geology, metamorphic geology, paleontology and natural history of this national park.

Grade Mode: Normal Grading Mode

GLY 518 Invertebrate Paleontology 4 Credit hours

Taxonomy, morphology, and paleoecology of body and trace fossils representing the major invertebrate phyla; analysis and interpretation of faunal assemblages; evolution and extinction of species. (PR: GLY 201)

GLY 520 Geochemistry

3 Credit hours

Introduction to the principles of geochemistry. The application of chemistry to the study of the earth and to geologic problems.

Grade Mode: Normal Grading Mode

GLY 521 Petrology

4 Credit hours

Identification and classification of igneous, sedimentary and metamorphic rocks, their origin and occurrence; their geologic and economic. 2 lec-4 lab.

Grade Mode: Normal Grading Mode

GLY 523 Sedimentary Petrography

4 Credit hours

Megascopic and microscopic identification and a depositional and post-depositional interpretation of the sedimentary rocks. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

GLY 527 Fossil Fuels

4 Credit hours

The origin and occurrence of petroleum, coal, and natural gas; the relationships of accumulations to depositional environments and structural history; methods used in exploration, evaluation and recovery. 3 lec-2 lab.

Pre-req: GLY 200.

Grade Mode: Normal Grading Mode

4 Credit hours **GLY 530 Computer Methods Geology**

The computer will be used for compilation, reduction, data analysis and modelling from a wide range of geological problems. Existing and student developed programs will be used.

Grade Mode: Normal Grading Mode

GLY 551 Principles Geomorphology

4 Credit hours

Identification and analysis of the earth's surficial features in terms of stratigraphy, structure, processes, tectonics, and time. 3 lec 2 lab.

Grade Mode: Normal Grading Mode

GLY 555 Hydrogeology

The properties of water, the hydrologic cycle with emphasis on surface and groundwater processes. The uses, needs and problems associated with water resources.

Grade Mode: Normal Grading Mode

GLY 555L Hydrogeology Laboratory

1 Credit hour

Laboratory and field experiments studying principles and concepts of hydrology. 2 lab.

Grade Mode: Normal Grading Mode

GLY 556 Environmental Geology

4 Credit hours

Consideration of risks posed by natural geo-hazards and from physical/ chemical contamination of geological media.

Grade Mode: Normal Grading Mode

GLY 557 Engineering Geology

4 Credit hours

Consideration of geotechnical problems faced by geologists and engineers. Major topics include mechanics and classification of soil and rock, and geotechnical aspects of groundwater.

Grade Mode: Normal Grading Mode

1-4 Credit hours **GLY 580 Special Topics**

Grade Mode: Normal Grading Mode

GLY 581 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

GLY 582 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

GLY 583 Special Topics

Grade Mode: Normal Grading Mode

1-4 Credit hours **GLY 585 Independent Study**

Grade Mode: Normal Grading Mode

1-4 Credit hours **GLY 586 Independent Study**

Grade Mode: Normal Grading Mode

GLY 587 Independent Study 1-4 Credit hours

Grade Mode: Normal Grading Mode

1-4 Credit hours **GLY 588 Independent Study**

Grade Mode: Normal Grading Mode

GLY 640 Physical Aspects Geology 1-4 Credit hours

Grade Mode: Normal Grading Mode

1-4 Credit hours **GLY 641 Biological Aspect Geology**

Grade Mode: Normal Grading Mode

1-4 Credit hours **GLY 642 Chemical Aspects Geology**

Grade Mode: Normal Grading Mode

GLY 681 Thesis 1-6 Credit hours

Attributes: Onsite Learning Experience, Thesis

Grade Mode: Normal Grading Mode

Natural Resources and the Environment

NRE 111 R Living Systems

3 Credit hours

This course is designed to equip students to use the process of scientific inquiry to answer questions related to living systems.

Attributes: Natural Sciences, Core II Natural Sciences

Grade Mode: Normal Grading Mode

NRE 111L 💎 Living Systems Lab

1 Credit hour

Laboratory course to accompany NRE 111 Living Systems.

Pre-req: NRE 111 (may be taken concurrently) with a minimum grade

of C.

Concurrent PR: NRE 111

Attributes: Natural Sciences, Core II Natural Sciences

Grade Mode: Normal Grading Mode

NRE 120 Piscussion in Environ Sci (CT) 3 Credit hours

Critical thinking course designed to examine and explore issues in environmental science including protection of terrestrial and aquatic resources and production of energy and food for a growing population.

Attributes: Critical Thinking, Natural Sciences

Grade Mode: Normal Grading Mode

NRE 200 Introduction to Agriculture

3 Credit hours

This course will discuss scientific concepts essential to agriscience and examine practices, careers, and new directions in various fields in agriculture.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

NRE 212 Energy

3 Credit hours

The course introduces the students to the properties and the interfaces of biological and physical systems with emphasis on energy concepts, production and distribution in both systems.

Attributes: Natural Sciences

Grade Mode: Normal Grading Mode

NRE 220 Phuman Dimensions Nat Res (CT)

3 Credit hours This course provides an overview of human-nature relationship from

the perspective of conservation and natural resource management.

Attributes: Critical Thinking, Natural Sciences

1-4 Credit hours Grade Mode: Normal Grading Mode

NRE 280 Special Topics

1-4 Credit hours

A course covering topics not treated in regular course offerings.

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

NRE 281 Special Topics

1-4 Credit hours

A course covering topics not treated in regular course offerings.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

NRE 282 Special Topics

1-4 Credit hours

A course covering topics not treated in regular course offerings.

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

NRE 283 Special Topics

1-4 Credit hours

A course covering topics not treated in regular course offerings.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

NRE 285 Independent Study

1-4 Credit hours

Independent study for selected sophomores or advanced freshman

under supervision of faculty; may be repeated only once.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

NRE 286 Independent Study

1-4 Credit hours

Independent study for selected sophomores or advanced freshman

under supervision of faculty; may be repeated only once.

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

NRE 287 Independent Study

1-4 Credit hours

Independent study for selected sophomores or advanced freshman

under supervision of faculty; may be repeated only once. **Attributes: Natural Sciences**

Grade Mode: Normal Grading Mode

NRE 288 Independent Study 1-4 Credit hours

Independent study for selected sophomores or advanced freshman

under supervision of faculty; may be repeated only once.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

NRE 300 Principles of Soil Science 3 Credit hours This course will examine the principles of soils, including origin,

composition, classification, and physical, chemical, and biological properties and processes, as well as agricultural and environmental

applications.

Pre-req: CHM 212 with a minimum grade of D.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

NRE 301 Principles of Soil Science Lab

2 Credit hours

A laboratory course that demonstrates the application of concepts

introduced in NRE 300 Principles of Soil Science.

Pre-req: NRE 300 (may be taken concurrently) with a minimum grade

of D and CHM 212 with a minimum grade of D.

Concurrent PR: NRE 300 **Attributes:** Natural Sciences Grade Mode: Normal Grading Mode **NRE 302 Animal Production**

3 Credit hours

This course will examine the principles of animal production through the application of anatomy, physiology, behavior, nutrition, reproduction, breeding, and genetics in the production and

management of farm animals.

Pre-req: BSC 121 with a minimum grade of D.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

NRE 320 Nature Enviro Problems

The effects of human activity on ecological, political, economic, and cultural systems are examined. Particular attention is given to present human population growth, industrial activities, and energy availability.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

NRE 321 Resol Environ Problems

3 Credit hours

Students examine case studies of current environmental problems and propose methods of remediation. Cultural, political, economic, as well as ecological and physiographic factors are considered.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

NRE 322 Assess I: Terrestrial Systems

4 Credit hours

Use of scientific procedure and current technology to characterize and quantify sensitive elements of terrestrial ecosystems and to assess

human impact on these systems.

Pre-req: (IST 111 with a minimum grade of D or NRE 111 with a minimum grade of D) or BSC 104 with a minimum grade of D or

BSC 120 with a minimum grade of D.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

NRE 323 Assessment II: Aquatic Ecology

4 Credit hours

Use of scientific procedures and current technology to characterize and quantify sensitive elements of aquatic ecosystems and to assess

human impact on these systems.

Pre-req: IST 111 or NRE 111 or BSC 104 or BSC 120.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

NRE 400 Soil Fertility/Plant Nutrition

4 Credit hours

This course will examine properties of soil fertility, its relationship to plan nutrition, and practices in nutrient management and fertilizer application.

Pre-req: BSC 121 with a minimum grade of D and NRE 300 with a

minimum grade of D. **Attributes:** Natural Sciences **Grade Mode:** Normal Grading Mode

NRE 401 Horticulture

4 Credit hours

This course will examine the principles and practices in horticulture and apply these practices through a semester service project. Pre-reg: BSC 121 with a minimum grade of D and NRE 310 with a

minimum grade of D. **Attributes: Natural Sciences** Grade Mode: Normal Grading Mode

NRE 402 Sustainable Agriculture

3 Credit hours

This course will examine the principles of sustainable agriculture and its relationship with natural resources while identifying challenges to

agricultural sustainability and frontiers in the field. Pre-req: NRE 200 with a minimum grade of D.

Attributes: Natural Sciences Grade Mode: Normal Grading Mode

NRE 403 Agricultural Entomology

4 Credit hours

Globally, insects have tremendous impacts on agriculture. This course introduces students to insects and their roles in agriculture including integrated pest management and pollination ecology.

Pre-req: BSC 121 with a minimum grade of D.

Attributes: Natural Sciences
Grade Mode: Normal Grading Mode

NRE 404 Compost Science & Operations

4 Credit hours

An advanced exploration of composting systems, evaluation methods, sustainable management strategies, compost quality characteristics and analysis, and community, environmental, and operational aspects of compost production and utilization.

Pre-req: BSC 121 with a minimum grade of D and NRE 300 with a

minimum grade of D.

Grade Mode: Normal Grading Mode

NRE 423 GIS and Data Systems

3 Credit hours

Course focuses on the relationships among the scientific method, data structures, and geographic images. Students relate hypothesis formation and databases through the development of ARCMap documents.

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

NRE 425 Water Policy and Regulations

3 Credit hours

Examination of how aquatic resources are protected for humans and species of concern by current regulatory framework.

Attributes: No Textbook Required, Natural Sciences

Grade Mode: Normal Grading Mode

NRE 431 Aquatic Toxicology 4 Credit hours

This course will introduce students to the principles of aquatic toxicology including regulations driving biological criteria, development of laboratory toxicity testing and test methodology.

Pre-req: BSC 105 with a minimum grade of D or BSC 121 with a minimum grade of D or IST 323 with a minimum grade of D or NRE 323 with a minimum grade of D.

Attributes: Natural Sciences
Grade Mode: Normal Grading Mode

NRE 435 Biomonitoring

4 Credit hours

Biomonitoring is the use of organisms to assess habitat and water quality of a stream. Current aquatic biomonitoring focuses on the utilization of benthic invertebrates and fishes communities.

Pre-req: BSC 120 with a minimum grade of D or IST 323 with a minimum grade of D or NRE 323 with a minimum grade of D.

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

NRE 440 Fisheries Management

4 Credit hours

The history, regulations, theory, and science behind the management/mismanagement of inland fisheries.

Pre-req: NRE 322 with a minimum grade of D or NRE 323 with a

minimum grade of D.

Grade Mode: Normal Grading Mode

NRE 445 Topical Ecology

3 Credit hours

This course is designed to introduce the cultural components, human impacts, basic ecology, habitats types, biodiversity, plant communities, life histories, and conservation of tropical ecosystems.

Pre-req: NRE 321 with a minimum grade of D or NRE 323 with a minimum grade of D and (NRE 446L (may be taken concurrently) with a minimum grade of D or NRE 447L (may be taken concurrently) with a minimum grade of D).

Concurrent PR: NRE 446L or NRE 447L

Attributes: International

Grade Mode: Normal Grading Mode

NRE 446L 💎 Sustain Tropical Travel Lab 2 Credit hours

Laboratory companion course to NRE 445. Investigation of aquatic and terrestrial biota in the tropical environment and examination threats to tropical ecosystems. International trip, with an extra fee, required.

Pre-req: NRE 321 with a minimum grade of D or NRE 323 with a minimum grade of D and NRE 445 (may be taken concurrently) with a

minimum grade of D. **Concurrent PR:** NRE 445 **Attributes:** International

Grade Mode: Normal Grading Mode

NRE 447L 💎 Sustainable Tropical Lab 1 Credit hour

Laboratory companion course to NRE 445. Investigation of aquatic and terrestrial biota in the tropical environment and examination threats to tropical ecosystems.

Pre-req: NRE 321 with a minimum grade of D or NRE 323 with a minimum grade of D and NRE 445 (may be taken concurrently) with a minimum grade of D.

Concurrent PR: NRE 445
Attributes: International

Grade Mode: Normal Grading Mode

NRE 450 Aquatic Invertebrates

4 Credit hours

A survey course of the freshwater invertebrates found in the eastern United States. This course focuses on the taxonomy, life histories, and ecology of crustaceans, mollusks, and insects.

Pre-req: NRE 322 with a minimum grade of D or NRE 323 with a

minimum grade of D.

Grade Mode: Normal Grading Mode

NRE 470 💎 ES Internship

3 Credit hours

A supervised internship in an area of natural resources and the environment.

Attributes: Capstone Course, Natural Sciences, Onsite Learning

Experience

Grade Mode: Normal Grading Mode

NRE 480 Special Topics

1-4 Credit hours

A course covering topics not treated in regular course offerings.

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

NRE 481 Special Topics

1-4 Credit hours

A course covering topics not treated in regular course offerings.

Attributes: Natural Sciences
Grade Mode: Normal Grading Mode

NRE 482 Special Topics

1-4 Credit hours

A course covering topics not treated in regular course offerings.

Attributes: Natural Sciences
Grade Mode: Normal Grading Mode

NRE 483 Special Topics

1-4 Credit hours

A course covering topics not treated in regular course offerings.

Attributes: Natural Sciences
Grade Mode: Normal Grading Mode

NRE 485 Independent Study

1-4 Credit hours

Independent study for selected juniors and seniors under supervision

of faculty; may be repeated only once.

Attributes: No Textbook Required, Natural Sciences

Grade Mode: Normal Grading Mode

NRE 486 Independent Study

1-4 Credit hours

Independent study for selected juniors and seniors under supervision

of faculty; may be repeated only once.

Attributes: Natural Sciences
Grade Mode: Normal Grading Mode

NRE 487 Independent Study

1-4 Credit hours

Independent study for selected juniors and seniors under supervision of faculty; may be repeated only once.

Attributes: Natural Sciences

Grade Mode: Normal Grading Mode **NRE 488 Independent Study**

1-4 Credit hours

Independent study for selected juniors and seniors under supervision

of faculty; may be repeated only once.

Attributes: Natural Sciences **Grade Mode:** Normal Grading Mode

NRE 490 ES/NRRM Capstone Prep

3 Credit hours

Prepares students for the senior project, internship experience, and for careers beyond graduation. Life skills are introduced by building on communication, organization, and project management skills

(capstone).

Attributes: No Textbook Required, Natural Sciences

Grade Mode: Normal Grading Mode

NRE 491 💎 ES Senior Capstone

3 Credit hours

Students develop and complete a research project under the direction of a faculty member in the NRE department (capstone).

Pre-req: NRE 490 with a minimum grade of D.

Attributes: Capstone Course, No Textbook Required, Natural Sciences,

Onsite Learning Experience **Grade Mode:** Normal Grading Mode

NRE 500 Soil Fertility/Plant Nutrition

4 Credit hours

This course will examine properties of soil fertility, its relationship to plan nutrition, and practices in nutrient management and fertilizer application.

Grade Mode: Normal Grading Mode

NRE 502 Sustainable Agriculture

3 Credit hours

This course will examine the principles of sustainable agriculture and its relationship with natural resources while identifying challenges to agricultural sustainability and frontiers in the field.

Grade Mode: Normal Grading Mode

NRE 525 Water Policy & Regulations

3 Credit hours

Examination of how aquatic resources are protected for humans and species of concern by current regulatory framework.

Grade Mode: Normal Grading Mode

NRE 531 Aqua Toxicology

4 Credit hours

This course will introduce students to the principles of aquatic toxicology including regulations driving biological criteria, development of laboratory toxicity testing and test methodology.

Grade Mode: Normal Grading Mode

NRE 535 Biomonitoring

4 Credit hours

A foundation of environmental assessment is the utilization of aquatic communities to monitor biota/habitat/water quality.

Grade Mode: Normal Grading Mode

NRE 540 Seminar I

1 Credit hour

Introduction to graduate research and individual topics, development of literature research skills, reading and discussion of keystone papers, support for research project prospectus development and beginning the literature portfolio for the thesis.

Grade Mode: Normal Grading Mode

NRE 541 Fisheries Management

4 Credit hours

The history, regulations, theory, and science behind the management/ mismanagement of inland fisheries.

Grade Mode: Normal Grading Mode

NRE 545 Sustainable Tropical Ecology

3 Credit hours

This course is designed to introduce the cultural components, human impacts, basic ecology, habitats types, biodiversity, plant communities, life histories, and conservation of tropical ecosystems.

Pre-req: NRE 546L (may be taken concurrently) or NRE 547L (may be

taken concurrently).

Concurrent PR: NRE 546L or NRE 547L **Grade Mode:** Normal Grading Mode

NRE 546L Sustain Tropical Travel Lab

2 Credit hours

Laboratory companion course to NRE 545. Investigation of aquatic and terrestrial biota in the tropical environment and examination threats to tropical ecosystems. International trip, with an extra fee, required.

Pre-req: NRE 545 (may be taken concurrently).

Concurrent PR: NRE 545

Grade Mode: Normal Grading Mode

NRE 547L Sustainable Tropical Lab

1 Credit hour

Laboratory companion course to NRE 445. Investigation of aquatic and terrestrial biota in the tropical environment and examination threats to tropical ecosystems.

Pre-req: NRE 545 (may be taken concurrently).

Concurrent PR: NRE 545

Grade Mode: Normal Grading Mode

NRE 550 Aquatic Invertebrates

4 Credit hours

A survey course of the freshwater invertebrates found in the eastern United States. This course focuses on the taxonomy, life histories, and ecology of crustaceans, mollusks, and insects.

Grade Mode: Normal Grading Mode

NRE 560 Seminar II

1 Credit hour

This course focus is discussion of fundamental and cornerstone literature from the field of nature resources. Emphasis will be given to research methods and individual student project development.

Grade Mode: Normal Grading Mode

NRE 580 Special Topics

1-4 Credit hours

Study of an advanced topic not normally covered in other courses.

Grade Mode: Normal Grading Mode

NRE 581 Special Topics

1-4 Credit hours

Study of an advanced topic not normally covered in other courses.

Grade Mode: Normal Grading Mode

NRE 582 Special Topics

1-4 Credit hours

Study of an advanced topic not normally covered in other courses.

Study of an advanced topic not normally covered in other courses.

NRE 583 Special Topics

1-4 Credit hours

Study of an advanced topic not normally covered in other courses.

1-4 Credit hours

1-8 Credit hours

Grade Mode: Normal Grading Mode

Grade Mode: Normal Grading Mode

NRE 680 Special Topics

Grade Mode: Normal Grading Mode

NRE 585 Independent Study Independent Study (1-4 hrs)

1-4 Credit hours

1-4 Credit hours

1-4 Credit hours

NRE 681 Thesis

Grade Mode: Normal Grading Mode

NRE 586 Independent Study

1-4 Credit hours

Independent Study (1-4 hrs)

Grade Mode: Normal Grading Mode

NRE 587 Independent Study

Independent Study (1-4 hrs)

Grade Mode: Normal Grading Mode

NRE 588 Independent Study

Independent Study (1-4 hrs) Grade Mode: Normal Grading Mode

NRE 604 Compost Science & Operations 4 Credit hours

An advanced exploration of composting systems, evaluation methods, sustainable management strategies, compost quality characteristics and analysis, and community, environmental, and operational aspects of compost production and utilization.

Grade Mode: Normal Grading Mode

3 Credit hours NRE 623 Adv Pathophysiology

This course provides advanced knowledge of body systems altered by disease and/or injury across the life span. In addition, studying the pathophysiology of body systems will include exploring culture and ethnicity.

Pre-req: NUR 620 with a minimum grade of C.

Grade Mode: Normal Grading Mode

NRE 625 Advanced Physical Assessment 3 Credit hours

Introduction to knowledge and skills essential for comprehensive health assessments, analysis of data, diagnoses, therapeutic plans, and health promotion and maintenance activities.

Grade Mode: Normal Grading Mode

NRE 640 Seminar III 1 Credit hour

The course utilizes relevant literature from the Natural Sciences to investigate data analysis and presentation methods. Topics include statistical methods selection, graphical presentations, journal selection and interpretation of data outcomes.

Grade Mode: Normal Grading Mode

NRE 660 Seminar IV 1 Credit hour

The course focuses on transition to professional opportunities beyond graduate school. Discussions will include scientific publication and public presentation in multiple venues and formats, expectations of various career options and applications of science in decision making.

Grade Mode: Normal Grading Mode

NRE 670 Independent Study 1-4 Credit hours

Independent Study

Grade Mode: Normal Grading Mode

NRE 671 Independent Study 1-4 Credit hours

Independent Study

Grade Mode: Normal Grading Mode

NRE 672 Independent Study 1-4 Credit hours

Independent Study

Grade Mode: Normal Grading Mode

NRE 673 Independent Study 1-4 Credit hours

Independent Study

Grade Mode: Normal Grading Mode

Natural Resource Recreation Management

NRRM 101 Intro Natural Res & Rec Mgmt 3 Credit hours

An orientation to the profession and its settings, emphasizing history,

trends, concepts, and relationships to other fields.

NRRM 110 Outdoor Leadership: Canoeing 1 Credit hour

This course is designed to give students the skills essential for the pursuit of employment in guiding participants on flat-water canoe courses in backcountry settings.

Grade Mode: Normal Grading Mode

Grade Mode: Normal Grading Mode

NRRM 111 Outdoor Leadership: Fly Fish 1 Credit hour

This course is designed to give students the skills essential for the pursuit of being able to guide participants on fly fishing excursions in

the backcountry.

Grade Mode: Normal Grading Mode

NRRM 112 Outdoor Leadership: Bass Fish 1 Credit hour

This course is designed to give students the skills essential to pursue employment as a guide on bass fishing excursions in the backcountry.

Grade Mode: Normal Grading Mode

1 Credit hour NRRM 113 Outdoor Leadership: Backpack

This course is designed to give students the foundation skills essential in the pursuit of being leading participants on backcountry backpacking experiences. Leave No Trace ethics will be taught.

Grade Mode: Normal Grading Mode

NRRM 156 Bicycling 1 Credit hour

Grade Mode: Normal Grading Mode

NRRM 158 Downhill Skiing 1 Credit hour

Grade Mode: Normal Grading Mode

NRRM 200 Analytical Methods: Statistics 4 Credit hours

Students develop an understanding of statistical reasoning through the use of software to generate, summarize, and draw conclusions from data. Course enhances statistical technique dexterity through analysis

of applied problems.

Grade Mode: Normal Grading Mode

NRRM 201 Recreational Activities 3 Credit hours

Grade Mode: Normal Grading Mode

NRRM 231 Nature Study 3 Credit hours

Designed to provide students with the fundamental understanding of and for the delivery of nature based educational programs offered through an experiential framework.

Grade Mode: Normal Grading Mode

1-4 Credit hours **NRRM 280 Special Topics**

Grade Mode: Normal Grading Mode

NRRM 281 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

NRRM 282 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

NRRM 283 Special Topics 1-4 Credit hours

NRRM 301 Intro to Outdoor Recreation

3 Credit hours

Organization, administration, and delivery of outdoor recreation activities and resources. Emphasis upon federal, state, and local government programs and areas.

Grade Mode: Normal Grading Mode

NRRM 310 Environmental Interpretation 3 Credit hours

Principles and techniques of environmental interpretation as practiced in federal, state, and private agencies.

Grade Mode: Normal Grading Mode

NRRM 311 Intro to Environmental Educ 3 Credit hours

This course is the study of environmental education, its foundations, emergence in the 1960's, its evolution, the systems approach to it, and the application of it in the field.

Grade Mode: Normal Grading Mode

NRRM 320 Sports & Campus Rec Mgmt 3 Credit hours

This course will deal with the fields of recreational sports and campus recreation management. It will present the foundations of both fields, the development, implementation, and trends in today's programs.

Grade Mode: Normal Grading Mode

NRRM 330 Concepts Philosophies in NRRM 3 Credit hours

A systematic approach to the concepts and philosophies for managing wildland, wilderness, and protected areas.

Grade Mode: Normal Grading Mode

NRRM 340 Special Event Managment

3 Credit hours

This course will study the processes for event facilitation. Special attention will be given to the roles and skills utilized by a variety of recreation managers.

Grade Mode: Normal Grading Mode

NRRM 350 Adventure Education Leadership 3 Credit hours

This course focuses on preparing students to be outdoor adventure education leaders, facilitating programs in both the front and back country utilizing adventure education techniques in an outdoor setting.

Grade Mode: Normal Grading Mode

NRRM 360 Tourism Planning & Management 3 Credit hours

The course will examine the critical issues addressed by tourism planning and management, which are the positive and negative influences of tourism on the destination's economy, society, culture, and environment.

Grade Mode: Normal Grading Mode

NRRM 361 Visitor Behavior in NRRM 3 Credit hours

This course provides an overview and analysis of individual and group behavior as it pertains to consumer activity in the context of recreation and tourism resource environments.

Grade Mode: Normal Grading Mode

NRRM 362 Ecotourism: Admin and Mgmt 3 Credit hours

This course will examine the theoretical foundations, applications and best management practices in ecotourism. Other minor topics include: sustainability, nature-based and adventure tourism; sociocultural, environmental, and economic impacts of ecotourism.

Grade Mode: Normal Grading Mode

NRRM 380 Rec Resource Oper and Admin 3 Credit hours

Focused on the management, operation, and administration practices of recreation resource areas. Includes supervision of personnel, budgeting, and public relations for a variety of park and public land organizational structures.

Grade Mode: Normal Grading Mode

NRRM 400 Leisure & Aging

3 Credit hours

A course presenting an overview of leisure services for the elderly. Topics include research results, theories, and modern day trends. A wellness model will be included.

Grade Mode: Normal Grading Mode

NRRM 402 Research Eval & Assess in NRRM 3 Credit hours

Theoretical & practical approach to research, evaluation and assessment of the social sciences of natural resources and recreational management.

Grade Mode: Normal Grading Mode

NRRM 405 Park & Recreation Ecology 3 Credit hours

The course is designed to help students identify and evaluate the level of resource impact, understand factors that cause impacts, and suggest management actions to minimize impacts under given conditions.

Grade Mode: Normal Grading Mode

NRRM 410 Maint of Nat Res & Rec 3 Credit hours

A study of the knowledge and skills necessary to supervise and administer the general development and maintenance of park and recreation areas and facilities.

Grade Mode: Normal Grading Mode

NRRM 411 Rec Resource Planning & Design 3 Credit hours

Basic considerations in the planning and design of natural areas, parks, forests, recreation, and sport area infrastructure, facilities and associated amenities.

Attributes: No Textbook Required **Grade Mode:** Normal Grading Mode

NRRM 432 Wilderness/Protected Area Mgmt 3 Credit hours

This course will examine the historic and current philosophies of wilderness and protected area management as applicable to NGOs, local, state, and federal land management programs.

Grade Mode: Normal Grading Mode

NRRM 433 GIS/RS in Natural Resources 3 Credit hours

Focusing on natural resource management, the course will explore techniques and procedures required for spatially explicit data analysis in park and protected area applications.

Grade Mode: Normal Grading Mode

NRRM 450 Intro OHV Recreation 3 Credit hours

Grade Mode: Normal Grading Mode

NRRM 451 Plan Design OHV Trails 3 Credit hours

Grade Mode: Normal Grading Mode

NRRM 452 Construction OHV Trails 3 Credit hours

A course designed to instruct students in contemporary methods and techniques of constructing OHV trails and related facilities.

Grade Mode: Normal Grading Mode

NRRM 453 Op Mgt OHV Trail Systems 3 Credit hours

Grade Mode: Normal Grading Mode

NRRM 480 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

NRRM 481 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

NRRM 482 Special Topics 1-4 Credit hours

Grade Mode: Normal Grading Mode

NRRM 483 Special Topics 1-4 Credit hours

NRRM 484 Special Topics
Grade Mode: Normal Grading Mode

NRRM 485 Independent Study
Attributes: No Textbook Required

Grade Mode: Normal Grading Mode

NRRM 486 Independent Study
Grade Mode: Normal Grading Mode

NRRM 487 Independent Study Grade Mode: Normal Grading Mode

NRRM 488 Independent Study

Grade Mode: Normal Grading Mode

NRRM 490 💎 Internship 6 Credit hours

A supervised 40-hour per week, 6 week internship in which the students work with park and recreation agencies. (PR: NRRM major. Advisor approval required.)

Attributes: Capstone Course, No Textbook Required, Onsite Learning

Experience

Grade Mode: Normal Grading Mode

NRRM 500 Leisure & Aging 3 Credit hours

A course presenting an overview of leisure services for the elderly. Topics include research results, theories, and modern day trends. A wellness model will be included.

Grade Mode: Normal Grading Mode

NRRM 501 Admin Parks & Recreation 3 Credit hours

Considers administrative practices and various organizational structures. Includes administrative process, supervision of personnel, budgeting, and public relations. Requires conducting a case study of an existing park and recreation department, including fiscal and personnel policies and an analysis of the effectiveness of such policies.

Grade Mode: Normal Grading Mode

NRRM 502 Assess & Eval Rec Service 3 Credit hours

Theoretical & practical approach to evaluation as applied to recreation & leisure services. Emphasis will be upon developing sound assessment & evaluation methodology applicable to recreation & leisure studies (PR: NRRM 101)

Grade Mode: Normal Grading Mode

NRRM 510 Rec Area Facility Maint 4 Credit hours

A study of the knowledge and skills necessary to supervise and administer the general development and maintenance of park and recreation areas and facilities.

Grade Mode: Normal Grading Mode

NRRM 511 Rec Areas & Facilities 3 Credit hours

Basic considerations in the planning and design of recreation and sport areas, facilities, and structures including associated amenities.

Grade Mode: Normal Grading Mode

NRRM 521 Rec Special Populations 3 Credit hours

Study of the use of recreation activities with disabled persons. Techniques in programming and adaptation to meet the leisure needs of special groups in today's society. In association with a therapeutic recreation institution, student must develop a new/revised procedure for providing recreation programs at that institution.

Grade Mode: Normal Grading Mode

NRRM 522 Ther Rec Institu Settings 3 Credit hours

Designed to acquaint students with the role and practice of therapeutic recreation in treatment centers. Requires preparation of an annotated bibliography of current literature in this field and conducting of a case study of therapeutic recreation programmatic offerings in such an institution.

istitution.

Grade Mode: Normal Grading Mode

NRRM 530 Environmental Interpreta 4 Credit hours

Principles and techniques of environmental interpretation as practiced in federal, state, and private agencies. Students must develop and interpretative brochure and evaluate both a facility and a program. 3

lec-2 lab.

1-3 Credit hours

1-4 Credit hours

1-4 Credit hours

1-4 Credit hours

1-4 Credit hours

Grade Mode: Normal Grading Mode

NRRM 531 Forest Recreation Plan 4 Credit hours

Utilizes the functional planning approach based upon demand and site capability analysis. Student conducts an in-depth recreation capability analysis in an existing park facility, presents this in written form; reviews the current literature on forest recreation development, and makes a final oral report. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

NRRM 542 Op Mgt OHV Trail Systems 3 Credit hours

Diagnosis of OHV problems and development of solutions based upon recognized trail standards and typical resource impacts.

Grade Mode: Normal Grading Mode

NRRM 550 Intro OHV Recreation 3 Credit hours

Grade Mode: Normal Grading Mode

NRRM 551 Plan Design OHV Trails 3 Credit hours

Grade Mode: Normal Grading Mode

NRRM 552 Construction of OHV Trails 3 Credit hours

A course designed to instruct students in contemporary methods and techniques of construction OHV trails and related facilities.

Grade Mode: Normal Grading Mode

NRRM 553 Op Mgt OHV Trail Systems 3 Credit hours

Grade Mode: Normal Grading Mode

NRRM 580 Special Topics 1-4 Credit hours

Study of an advanced topic not normally covered in other courses. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

NRRM 581 Special Topics 1-4 Credit hours

Study of an advanced topic not normally covered in other courses. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

NRRM 582 Special Topics 1-4 Credit hours

Study of an advanced topic not normally covered in other courses. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

NRRM 583 Special Topics 1-4 Credit hours

Study of an advanced topic not normally covered in other courses. 3 lec-2 lab.

Grade Mode: Normal Grading Mode

NRRM 585 Independent Study 1-4 Credit hours

Requires conducting of individual survey/research projects beyond the requirements for undergraduates. Such projects will be individualized to meet the needs of students while accomplishing some practical need in the field.

NRRM 586 Independent Study

1-4 Credit hours

Requires conducting of individual survey/research projects beyond the requirements for undergraduates. Such projects will be individualized to meet the needs of students while accomplishing some practical need in the field.

Grade Mode: Normal Grading Mode

NRRM 587 Independent Study

1-4 Credit hours

Requires conducting of individual survey/research projects beyond the requirement for undergraduates. Such projects will be individualized to meet the needs of students while accomplishing some practical need in the field.

Grade Mode: Normal Grading Mode

NRRM 588 Independent Study

1-4 Credit hours

Requires conducting of individual survey/research projects beyond the requirements for undergraduates. Such projects will be individualized to meet the need of students while accomplishing some practical need in the field.