

Course Summaries

Naturalist Skills

Naturalist Skills provides an historical survey of the study of natural history and its practice as conducted by a naturalist. Students will learn the naturalist traditions, observation techniques, journal keeping, and the tools of a naturalist. *Due to the shorter nature of the Naturalist Skills course, it will be offered the same weekends as Interpretation: A Teachable Art and Mammals courses, allowing participants to complete two courses in one weekend.*

Goal:

The goal of this course is to provide students with knowledge of the history and practice of nature study as conducted by a naturalist.

Specific objectives of this course are:

1. To provide an historic overview of nature study and the role of the naturalist through time.
2. To introduce the students to key naturalists and their work.
3. To discuss the role of the naturalist today.
4. To give an overview of the tools of the naturalist and their use.
5. To discuss proper record keeping in detail.

Upon completion of this course, the student will be able to:

1. Describe how natural history study has been conducted throughout history.
2. List key naturalists and their accomplishments/influences throughout history.
3. Describe the various ways that naturalists study the natural world and the tools they may use.
4. Keep a proper field journal using the Grinnell Method.

Southern Appalachian Ecology

Learn about the ecology of the Southern Appalachian Mountains, particularly as it relates to Great Smoky Mountains National Park, through discussions and field trips. Topics will include geological history, plant community distribution, how aspect, elevation, and moisture gradients affect distribution, and an overview of plant communities with a focus on the major forest types. Field trips will include visits to examples of many of these forest types. Visit our web site to learn about the pre-homework activities and reading necessary for this course.

Goal:

The goal of this course is to provide students with a basic knowledge of plant communities and the factors that affect their distribution.

Specific objectives of this course are:

1. To provide a practical application of ecological theory as it applies to plant community distribution.
2. To introduce the student to key primary sources of literature regarding plant communities in the Southern Appalachians and to assist the student in his/her understanding of those resources.
3. To introduce the student to the impacts of non-native species on the plant communities in GSMNP.
4. To introduce the student to major plant communities within GSMNP and to their compositional flora.

Upon completion of this course, the student will be able to:

1. Describe how geology and glaciation affected the present day plant communities seen in the Southern Appalachians.
2. Describe how abiotic factors (aspect, elevation, temperature, and moisture) affect the vegetational communities within Great Smoky Mountains National Park.
3. Describe Whitaker's system for classifying plant communities in Great Smoky Mountains National park and how it can be used.
4. Describe how exotic species are affecting the Southern Appalachian Mountains
5. Identify major plant communities and forest types along with their indicator species.

Birds of the Smokies

What could be better than a weekend of birdwatching! Discover the many bird species of the Southern Appalachian Mountains while we focus on their specific adaptations and distributions in Great Smoky Mountains National Park. Emphasis will be given to general natural history of each species, including but not limited to; distribution, associations, reproduction, vocalizations, status, conservation, research methods, etc. Fieldtrips will take us to a variety of habitats, from low elevations to high, in search of these remarkable creatures

Goal:

To give the student an overview of the variety, distribution, management, and natural history of birds that inhabit the southern Appalachian Mountains.

Specific objectives of this course are:

1. To introduce the student to bird taxonomy and identification.
2. To introduce the student to the distribution and habitat preferences of birds in this region.
3. To discuss the general natural history of birds in this region.

Upon completion of this course, the student will be able to:

1. Identify taxonomic groups and many of the species within Great Smoky Mountains National Park.
2. Create a natural history report on a bird of their choice.
3. Identify major conservation concerns as they relate to birds.

Interpretation: A Teachable Art

Interpretation: A Teachable Art provides rudimentary knowledge regarding the theory and principles of environmental interpretation, how to communicate effectively, and how to develop meaningful interpretive programs. Expect fun, hands-on activities and participatory education as we progress from learning about good communication to actually teaching. Visit our web site to learn about the pre-homework activities and reading necessary for this course.

Goal:

The goal of this course is to provide students with a basic knowledge of interpretation and education and their application.

Specific objectives of this course are:

1. To provide the student with a basic understanding of the principles, theories, and methods of environmental interpretation;
2. To develop an appreciation of the importance of good communication in interpretive programs.
3. To provide the student an opportunity to develop skills in planning and presenting interpretive programs;
4. To provide an opportunity for the student to become acquainted with and to interact with organizations and practitioners involved in the field of interpretation.
5. To provide the student with an opportunity to visit, observe, and evaluate selected interpretive services.

Upon completion of this course, the student will have:

1. An understanding of the methodology used in effective interpretive programming.
2. Planned one meaningful interpretive program (for either children or adults or families) that will be presented to a group.
3. An understanding of how interpretation can be used to give the public knowledge of natural resources and the public's role in the stewardship there of.

Plants (*Southern Appalachian Ecology is a prerequisite for this course*)

Delve into the incredible diversity of plants found in the Southern Appalachians! We'll make it easy to learn botanical terms, plant taxonomy, and plant identification. Students will participate in several field classes during which they will investigate particular plant communities, learning the plants common to those communities. Emphasis is given to plant distribution and communities and practice with keys and field guides. You never knew botany could be so fun!

Goal:

The goal of this course is to provide students with the knowledge needed to identify plants and with specific knowledge of the natural history of plants in Great Smoky Mountains

National Park.

Specific objectives of this course are:

1. To introduce the student to plant structure and botanical terminology.
2. To introduce the student to plant classification, plant families and their characteristics.
3. To introduce the student to plant identification resources and how they are used.
4. To provide field study of plants in their natural settings.

Upon completion of this course, the student will be able to:

1. Use existing resources to identify plants.
2. Understand and use basic botanical terminology.
3. Identify common woody and herbaceous plants in GSMNP.
4. Predict distribution of common plants in GSMNP.

Reptiles and Amphibians

Discover the secret lives of reptile and amphibian species in the Southern Appalachian Mountains. We will focus on their specific adaptations and distributions in Great Smoky Mountains National Park. Emphasis will be given to general natural history of each species, including but not limited to; distribution, associations, reproduction, status, conservation, research methods, etc. Fieldwork will include surveys of populations of reptiles and amphibians using traditional methods such as cover boards, leaf litter bags, etc.

Goal:

To give the student an overview of the variety, distribution, management, and natural history of reptiles and amphibians that inhabit the southern Appalachian Mountains.

Specific objectives of this course are:

1. To introduce the student to reptile and amphibian taxonomy and identification.
2. To introduce the student to the distribution and habitat preferences of reptiles and amphibians in this region.
3. To discuss the general natural history of reptiles and amphibians in this region.

Upon completion of this course, the student will be able to:

1. Identify taxonomic groups and many of the species within Great Smoky Mountains National Park.
2. Create a natural history report on both a reptile and an amphibian of their choice.
3. Identify major conservation concerns as they relate to reptiles and amphibians in Great Smoky Mountains National Park.

Aquatic Natural History

This course provides an overview of the unique ecology of aquatic systems in the Southern Appalachian Mountains, particularly as it relates to Great Smoky Mountains National Park, through discussions and field trips. Topics will include aquatic macroinvertebrates, habitats, conservation issues, etc. Field trips will include visits to examples of many of these aquatic systems.

Goal:

This course will give students an overview of aquatic natural history as it relates to the streams and wetlands of the Southern Appalachian Mountains.

Specific objectives of this course are:

1. To introduce the student to the variety of streams and wetlands, their hydrology, structure, and habitats found in the Southern Appalachian Mountains.
2. To introduce the student to aquatic macroinvertebrates and their natural history, including their use in stream health indices.
3. To describe the importance of aquatic systems, their threats, management, and rehabilitation.

Upon completion of this course, the student will be able to:

1. Identify the types of aquatic systems found in the Southern Appalachian Mountains.
2. Identify aquatic macroinvertebrates to order.
3. Describe aquatic habitats and their inhabitants.

Mammals

Explore the diversity of mammal species in the Southern Appalachian Mountains with a focus on the management practices used within Great Smoky Mountains National Park. Emphasis will be given to general natural history of each species, including but not limited to: distribution, associations, reproduction, status, conservation, research methods, etc. Adjunct faculty will include resource management professionals from Great Smoky Mountains National Park and the University of Tennessee.

Goal:

To give the student an overview of the variety, distribution, management, and natural history of mammals that inhabit the southern Appalachian Mountains.

Specific objectives of this course are:

1. To introduce the student to mammal taxonomy and identification.
2. To introduce the student to the distribution and habitat preferences of mammals in this region.
3. To discuss the general natural history of mammals in this region.
4. To discuss the management and conservation of mammals in Great Smoky Mountains National Park.

Upon completion of this course, the student will be able to:

1. Identify mammal families and many of the species within Great Smoky Mountains National Park.
2. Create a natural history report on a mammal of their choice.
3. Identify major conservation concerns as they relate to mammals in Great Smoky Mountains National Park.