The State Botanical Garden of Georgia at The University of Georgia
Certificate in Native Plants (CNP) Program -- 2025 Schedule

----------CORE CLASSES----------

Plant Taxonomy: The Identities of Plants

Online course content available Mar. 12
Saturday, Apr. 5, 10 a.m. – 12 p.m. **or** 1 – 3 p.m. lab session (limited to 15 each)
Monday, Apr. 7, 6 – 8 p.m. Zoom lab session (limited to 20)
Tuesday, Apr. 8, 6 – 7 p.m. Zoom Q & A
Sabrina Sewell, botanist
Virtual program, see our website for more information
https://t.uga.edu/6Pa

Taxonomy is the fundamental branch of science that names and classifies all elements of the world around us, including living things. A plant taxonomist specializes in determining groupings, relationships, and ultimately, the names and identities of plants. This process utilizes pertinent data such as phylogenetics, phytogeography, and phenology, but most essentially, plant morphology: the forms of plant parts. In this multi-session virtual course, students will focus upon these diverse morphological characteristics of plants (descriptors of leaves, flowers, roots, etc.) and their utility in investigating unknown plants. Students will also survey the history, principles and practices of plant taxonomy as a discipline and be guided through the process of plant identification via dichotomous keys. It is recommended, but not necessary, that students take Basic Botany before this class.

Course Learning Objectives & Outline (topics covered will include):

- History of plant taxonomy
- Botanical nomenclature
- Tools, resources, and practices
- Plant morphology and terminology
- Characteristics of selected plant families
- Use of dichotomous keys

Course Structure:
This class consists of four elements: a series of pre-recorded introductory videos; at-home exercises exploring plant anatomy, collecting and dichotomous keys; an in-person lab session or virtual lab session and a wrap-up discussion session through Zoom.

- **Part 1 – Introductory Video Lectures – content released Mar. 12**
- **Part 2 – At-Home Exercises – content released Mar. 12**
- **Part 3 – Plant ID Lab – choice of in-person session Apr. 5; 10a.m. – 12p.m. or 1 – 3 p.m. OR virtual session Apr. 7; 6 – 8 p.m.**
- **Part 4 – Online Discussion Session – through Zoom Apr. 8; 6 – 7 p.m.**

Natural Communities of Georgia

Tuesday, Jul. 15; Thursday, Jul. 17 & Monday Jul. 21
6 – 8 p.m.
Melanie Flood, special project botanist, North Carolina Natural Heritage Program
Virtual program, see our website for more information
https://t.uga.edu/6wl

This course covers Georgia's diverse natural communities and their plants, including our iconic oak-pine forests, precious mountain coves, prairies, high mountain summits, pitcher-plant bogs, granite outcrops and fire-dependent longleaf pine woodlands. We will discuss the environmental factors that influence the vegetation of natural communities, their ecology and how climate change affects their composition and distribution over time. Natural communities across the state – what makes them special and how to identify them – will be covered as part of this class. This class will be taught virtually over a period of several sessions.

Course Structure:
This course consists of four elements: three live, online programs and a set of self-paced review exercises.

- **Part 1 - Online Class Session: Foundations of Natural Communities (2 hours) Jul. 15; 6 – 8 p.m.**
- **Part 2 - Online Class Session: Exploring Natural Communities (2 hours) Jul. 17; 6 – 8 p.m.**
- **Part 3 - Self-Paced Learning Exercises (1-2 hours of content)**
- **Part 4 - Online Class Session: Follow-up Q&A Session (1 hour) Jul. 21; 6 – 8 p.m.**

Plant Conservation: Protecting Plant Diversity

Saturday, Aug. 9, 9 a.m. – 1 p.m.
Tuesday, Aug. 12, 5:30 – 6:30 p.m.
Jennifer Ceska, conservation coordinator, State Botanical Garden of Georgia
Virtual program, see our website for more information
https://t.uga.edu/67N

Plant conservation is an applied science that draws upon many fields of knowledge from ecology to horticulture, to ethics and politics. This course surveys threats to biodiversity in Georgia and worldwide, examples of rare plant research, techniques for restoration and reintroduction, and ways individuals and organizations are making a difference in protecting the rare plants of Georgia.

Course Learning Objectives & Outline (topics covered will include):

- Why plants are critically imperiled, worldwide and in Georgia
- Grasslands, understory diversity
- Legal framework around plants, wildlife, protections, vulnerabilities
- Conservation ethics, seed collecting, separating populations
- Monitoring rare plant species, field techniques and ethics

Course Structure:
This class consists of three elements: a live, online 4-hour program, self-paced learning activities and a one-hour discussion session.

- **Part 1 – Online Class Session (4 hours) Aug. 9; 9 a.m. – 1 p.m.**
- **Part 2 – Self-Paced Learning Exercises (2 hours)**
- **Part 3 – Follow-up Q&A Session (1-hour session) Aug. 12; 5:30 – 6:30 p.m.**

Basic Botany: Fundamentals of Plant Biology

Online course content available Oct. 15
Saturday, Nov. 8, 10 a.m. – 12 p.m. **or** 1 – 3 p.m. lab session (limited to 15 each)
Wednesday, Nov. 12, 6 – 7 p.m. Zoom Q & A
Sabrina Sewell, botanist
Virtual program, see our website for more information
https://t.uga.edu/6IB

Explore the biology of plants in this introduction to general plant anatomy, morphology, physiology, evolution, and development. This course presents the fundamental information about plants upon which other courses in the native plant certificate program will build, particularly Plant Taxonomy. With an emphasis on relating form to function, it surveys the origins of plants along with their basic forms and life processes. Students will become acquainted with plant tissues and structures, as well as their roles in the life of plants.

Course Learning Objectives & Outline (topics covered will include):

- Origins of plants and their basic groups
- Brief history and fundamentals of the science of botany
- Plant structures (internal and external) - their forms, functions and development
- Plant life cycles and reproduction
- Introduction to basic plant genetics
- Evolutionary adaptations of plants

Course Structure:
This class consists of three elements: a series of pre-recorded introductory videos, in-person or at-home lab exercises exploring plant anatomy and a wrap-up discussion session through Zoom.

- **Part 1 – Introductory Video Lectures – content released Oct. 15**
- **Part 2 – Exploratory Lab Exercises – self-paced at home OR in-person session Nov. 8, 10 a.m. – 12 p.m. or 1 – 3 p.m.**
- **Part 3 – Online Discussion Session – through Zoom Nov. 12, 6 – 7 p.m.**

Participants who sign up for the online lab session will be provided instructions for conducting their own activities at home.

----------ELECTIVES----------

Native Plant Propagation

Friday, Feb. 7
9 a.m. – 1 p.m.
Emily Laske, assistant conservation horticulturist, State Botanical Garden of Georgia
State Botanical Garden, Mimsie Lanier Center
https://t.uga.edu/7vh

Learn the basics of propagating native wildflowers and shrubs from seeds, cuttings, and divisions. Models for inexpensive grow-light systems and a propagation timeline will be provided to ensure that your seedlings are ready to be transplanted outdoors in early spring. Participants will leave with several types of seeds to propagate at home. Time and weather permitting, we may walk around the Mimsie Lanier Center to collect woody cuttings for propagation, so please dress for the outdoors.

Winter Tree Identification

Saturday, Feb. 8
9 a.m. – 1 p.m.
Linda Chafin, botanist
State Botanical Garden Visitor Center, classroom 2
https://t.uga.edu/7ve

Trees may be most beautiful in the winter, when they are stripped down to their basic architecture. But can we know them without their leaves? In this class, students will learn the basics of identifying trees in the winter by learning about twigs, bark, leaf scars, fruits, and tree form. Students will learn to use a hand lens and a simple key for woody plants to identify species. Class time will be divided between classroom exercises and a field trip to the deciduous woods at the State Botanical Garden.

Native Plant Symposium

Wednesday, Mar. 5
9 a.m. – 3:30 p.m.
Garden Club of Georgia, Terrace Room
Fee: $65 (lunch included)
https://t.uga.edu/6wn

Growing and protecting native plants are important for many reasons: they celebrate our state and region, they are well suited to our region's growing conditions and they are the foundation of the complex ecosystem that supports insects, birds, reptiles, amphibians and mammals. Native plants can be tough, beautiful plants for your home landscape as well as delicate harbingers of the changing seasons. Join us for this year's Native Plant Symposium to explore the beauty of native plants. Please see the complete agenda on the garden's website at: www.botgarden.uga.edu.

Spring Wildflowers of Upland Deciduous Forests of Georgia

Saturday, Mar. 8
9 a.m. – 1 p.m.
Melanie Flood, special project botanist, North Carolina Natural Heritage Program
State Botanical Garden Visitor Center, classroom 2
https://t.uga.edu/7zp

The cool, moist forests of the Piedmont's ravines and slopes support a wealth of spring wildflowers. Students will learn the botanical terminology to identify and describe plants and will learn a variety of tools to identify spring-blooming plants. We will then visit the Dunson Native Flora Garden and learn a number of spring ephemerals and other early blooming plants.

Managing Invasive Plants

Saturday, March 22
9 a.m. – 1 p.m.
Heather Brasell, environmental educator
Gaskins Forest Education Center, Alapaha, GA
https://t.uga.edu/6g5

Whether you are managing your home garden, a public outdoor center, or natural ecosystems, you will need to deal with invasive plants. Once you have learned to identify these plants, it is a challenge to decide which plants to target with limited time and resources. Management considerations include general strategies for early detection, treatment and post-treatment monitoring. Strategies for targeting individual species depend on the ecosystem, the plant growth and behavior, the phenology of flowering and fruiting, as well as weather and environmental considerations. Bring your own concerns about problem species to the course (along with a list of native species present) so you can develop your own action plan. ***Please note that this class is located outside of the Athens area.***

Spring Wildflowers of the Granite Outcrops of Georgia

Thursday, Mar. 27
1 p.m. – 5 p.m.
Robby Astrove, preserve manager, Davidson-Arabia Mountain Nature Preserve
Davidson-Arabia Mountain Nature Preserve, Stonecrest, GA
https://t.uga.edu/9yv

Georgia is home to 90% of the Southeastern Piedmont's granite outcrops, one of the most endangered and botanically interesting natural communities in the US. Students will be introduced to the ecology, habitats, and plant communities of the granite outcrop ecosystem during an interpretive hike. As the mountain wakes up from a long cold winter, we will celebrate spring wildflowers on the outcrop and learn more about their life histories, adaptations, and resiliency as they survive and thrive in this challenging yet beautiful place. This will be an entirely field-based course on a multi-hour hike. ***Please note that this class is located outside of the Athens area.***

Soils of the Georgia Piedmont and Beyond

Saturday, Mar. 29
9 a.m. – 1 p.m.
Mac Callaham, research ecologist, U.S. Forest Service
State Botanical Garden Visitor Center, classroom 2
https://t.uga.edu/7vk

In this course we will discuss the history of our Georgia Piedmont soils, the history of public land in Georgia, and general soil ecology and biology. What is soil? What factors affect soil properties? These are a couple of the questions we will address in this class, which will include a lecture as well as a lab portion where we will explore soil in nature. Prepare to get a little dirty and to learn about the fascinating, mysterious world beneath your feet.

Ethnobotany of Native Plants: Through the Eyes of Native Americans

Thursday, May 8
9 a.m. – 1 p.m.
Mark Warren, author and owner, Medicine Bow Wilderness School
Medicine Bow Wilderness School, Dahlonega, GA
https://t.uga.edu/8wz

This workshop will provide an ethnobotanical journey through a Southern Appalachian forest and field site to discover the gifts of nature that allowed the Native American society to flourish in this region. To understand that the forest offered everything that the Native Americans needed is to grasp the essence of precontact Native American life and at the same time truly appreciate the individual parts of nature. Participants will explore the crafts and lore of Native American life, including their use of wild plants for foods, medicines, repellents and everyday tools. These resources and cultural practices still exist today and continue to be useful to those who follow in the footsteps of the first inhabitants of Katuah, the land we now call Southern Appalachia. Class time will be spent mostly outdoors, so come prepared for the weather that day. ***Please note that this class is located outside of the Athens area.***

Native Ferns of the Georgia Piedmont

Sunday, May 18
1 p.m. – 5 p.m.
Connie Gray, native plant specialist, Georgia Native Plant Society – Athens Chapter
State Botanical Garden Visitor Center, classroom 2
https://t.uga.edu/9AC

This course will focus on the most common ferns typically found in the Piedmont region of Georgia. We will begin with an introduction to the biology and morphology of ferns, especially those features that will help you identify the different species. We will also look at and compare the habitats where these ferns are found. We will examine each species through a presentation, some actual examples in pots, and an outdoor venture to see many of these plants in person in the Dunson Native Flora Garden. Following the field time, we will examine samples under magnification when we come back indoors. The primary focus of the course is to learn to recognize and appreciate these beautiful and fascinating native plants and to encourage participants to include them in their gardens. There will be some discussion of invasive non-native ferns as well.

Introduction to Graminoid ID

Saturday, May 31
9 a.m. – 1 p.m.
Melanie Flood, special project botanist, North Carolina Natural Heritage Program
State Botanical Garden Visitor Center, classroom 2
https://t.uga.edu/9Az

The term "graminoids" refers to three types of monocots - the grasses, sedges, and rushes. In this course, students will learn the basic morphological differences between graminoids, as well as how to identify some larger genera within each family. The class will begin inside to learn some background on the families and look at some plant specimens up close and personal under a microscope, and then we will take our newfound knowledge outside to the trails of the State Botanical Garden to look at these differences among living plants.

Carnivorous Plants of the Southeast US

Saturday, June 7
9 a.m. – 1 p.m.
Will Rogers, research professional II, State Botanical Garden of Georgia
State Botanical Garden Visitor Center, classroom 2
https://t.uga.edu/6Pb

If you are amazed by carnivorous plants, you're in legendary company; the great Charles Darwin shared your passion and enthusiasm for them as well. This course will be a dynamic, hands-on experience getting to know various native carnivorous species as well as a few others from across the world. Learn about various prey capture techniques, unexpected symbiotic relationships, growing requirements, and genetic work conducted here at UGA. There will also be a feeding tutorial, since some lucky participants will be going home with a carnivorous plant of their own!

Our Native Pollinators

Friday, June 13
9 a.m. – 1 p.m.
Becky Griffin, UGA pollinator health associate
Georgia Mountain Research and Education Center, Blairsville, GA
https://t.uga.edu/7vG

This class will explore the be(e)autiful world of our native bees, butterflies, wasps, flies and other insect pollinators. We will learn dive into the biology of why these insects are so important in our ecosystem with hands-on activities. We will also end our time together with a tour of the Ethnobotanical Garden to see the insects in action. ***Please note that this class is located outside of the Athens area.***

Native Ferns of the North Georgia Mountain Regions

Saturday, June 14
9 a.m. – 1 p.m.
Connie Gray, native plant specialist, Georgia Native Plant Society – Athens Chapter
State Botanical Garden Visitor Center, classroom 2
https://t.uga.edu/9AS

This course will focus on the most common ferns typically found in the Blue Ridge, Ridge and Valley, Cumberland Plateau, Brevard Fault zone and upper areas of the Piedmont. Many of these are also found further south but there are species that are very uncommon or not present at all in the Piedmont. The class will begin with an introduction to the biology and morphology of the ferns, especially those features that will help you identify the different species. The natural habitats of these different ferns will also be discussed. We will examine each of these ferns through slides, an outdoor venture to see many of these plants in person in the Dunson Native Flora Garden, and we will examine samples under magnification when we come back indoors. The primary focus of the class is to learn to recognize and appreciate these beautiful and fascinating native plants. There will be some discussion about using them in gardens as well.

Summer Tree Identification

Saturday, June 21
8 a.m. – 12 p.m.
Zach Wood, grasslands coordinator, State Botanical Garden of Georgia
State Botanical Garden Visitor Center, classroom 2
https://t.uga.edu/7vC

About 200 tree species occur in Georgia's Piedmont forests and woodlands. In this class, students learn to identify some of the most common of these by their leaves, bark, branching patterns, and tree form. Students will learn to use a hand lens and a simple dichotomous key for woody plants to identify species. Class time will be divided between classroom exercises and a field trip to the woods at the State Botanical Garden. ***Please note the earlier start time of this course.***

Native Plant Propagation

Saturday, June 28
9 a.m. – 1 p.m.
Henning von Schmeling, conservation horticulturist, Chattahoochee Nature Center
Chattahoochee Nature Center, Plaza Conference Room, Roswell, GA
https://t.uga.edu/7vh

Have you ever wanted to learn to propagate native plants from your garden? Have you wondered how layering works in plant propagation? Is it possible to break the dormancy of a seed to initiate germination? These and other questions will be answered and discussed at length during this engaging workshop held outdoors at the Chattahoochee Nature Center greenhouses. Propagation from root, stem and even leaf cuttings will be demonstrated, and participants will have the opportunity to apply these techniques as part of class. This elective will teach you the basics of native plant propagation and give you opportunity to try out the various techniques perfected by native plant experts over the years. ***Please note that this class is located outside of the Athens area.***

Carnivorous Plants and Their Habitats in the Southeastern US

Saturday, July 26
9 a.m. – 1 p.m.
Henning von Schmeling, conservation horticulturist, Chattahoochee Nature Center
Chattahoochee Nature Center, Plaza Conference Room, Roswell, GA
https://t.uga.edu/6Pb

Pitcher plants are some of the most spectacular carnivorous plants. In this class, you have the chance to be up-close and hands-on with many of those found right here in the southeastern US along with their other bog cohorts including sundews, bladderworts and Venus flytraps. Following a short classroom presentation, most of the time will be spent up in the nursery greenhouse area of Chattahoochee Nature Center where participants will begin to propagate many of these fascinating plants with expert assistance. There is no better way to learn about these special plants than through hands-on experience with experts who have decades of experience growing carnivorous plants. ***Please note that this class is located outside of the Athens area.***

Native Plants & Insect Pollinators

Saturday, Aug. 23
9 a.m. – 1 p.m.
Henning von Schmeling, conservation horticulturist, Chattahoochee Nature Center
Chattahoochee Nature Center, Plaza Conference Room, Roswell, GA
https://t.uga.edu/7vG

Numerous, ultra-specific pollination strategies exist all around us between our native plants and our native insect pollinators. Often, these relationships with our native pollinators go unnoticed in our gardens. In this class, you will learn about these fascinating pollination relationships through a lecture followed by a focused walk through the Chattahoochee Nature Center's native plant collections to witness these specialized plant designs and insect adaptations in action. ***Please note that this class is located outside of the Athens area.***

Fall Wildflowers of the Georgia Piedmont

Saturday, Sept. 13
9 a.m. – 1 p.m.
Linda Chafin, botanist
State Botanical Garden Visitor Center, classroom 2
https://t.uga.edu/79Z

Our gardens, roadsides, and meadows are aglow with color in the fall. In this class, students will learn to recognize the most common fall-blooming wildflowers in the Georgia Piedmont and be introduced to the basic botanical terminology used in identifying and describing fall-flowering plants, with an emphasis on plants in the Aster (composite) family. We will then apply that knowledge to plants in the field, learning to recognize families, genera, and species based on characteristics readily observable in the field.

Fall Wildflowers of the Granite Outcrops of Georgia

Thursday, Sept. 18
9 a.m. – 1 p.m.
Robby Astrove, preserve manager, Davidson-Arabia Mountain Nature Preserve
Davidson-Arabia Mountain Nature Preserve, Stonecrest, GA
https://t.uga.edu/9AV

Georgia is home to 90% of the Southeastern Piedmont's granite outcrops, one of the most endangered and botanically interesting natural communities in the US. Students will be introduced to the ecology, habitats, and plant communities of the granite outcrop ecosystem during an interpretive hike. Yellow daises and fall wildflowers dominate the outcrops in September, and we'll take in the grand showing as we celebrate fall's wildflowers on the outcrop. We will discuss and observe much about their life histories, adaptations, and resiliency to survive on the rock. This will be an entirely field-based course on a multi-hour hike. ***Please note that this class is located outside of the Athens area.***

Fungal Ecology & Diversity

Saturday Oct. 4
9 a.m. – 1 p.m.
Bill Sheehan, co-founder, Fungal Diversity Survey
State Botanical Garden Visitor Center, classroom 2
https://t.uga.edu/8Cn

Fungi are one of the three major groups of multicellular organisms on Earth yet they are far less well-known compared to plants or animals. Fungi evolved before plants, live inside all plants, provide nutrition to many plants and are the primary decay organisms that cycle dead plants back into nutrients. This course will start with an overview of fungal ecology and diversity. Students will then collect samples of fungi in the field and, in the final part of the class, examine the findings in relation to structure and function.

Plants We Love to Hate: Identifying and Controlling Non-native Invasive Pest Plants

Saturday, Oct. 11
9 a.m. – 3 p.m.
Gary Crider, naturalist and invasive plant control specialist
State Botanical Garden Visitor Center, classroom 2
https://t.uga.edu/6g5

This workshop is an introduction to identification and control of invasive, non-native pest plants. Students will learn about the major "offenders" in the Georgia Piedmont and how these plants cause ecological harm to native plant communities and wildlife. The class will also focus on habitat restoration through management and control of invasive plants. A variety of control methods will be outlined, including description of tools, techniques, and detailed strategies for some of the high-priority species. **The lecture portion of this class will be until 12:30 p.m. followed by a break and optional outdoor field study.**

Warm-Season Grasses of the Georgia Piedmont

Saturday, Oct. 18
9 a.m. – 1 p.m.
Zach Wood, grasslands coordinator, State Botanical Garden of Georgia
State Botanical Garden Visitor Center, classroom 2
https://t.uga.edu/7a1

Grasses are the most economically and ecologically important plant family, but most of us know very little about them and fewer still know how to identify grasses. In this class, we will learn to recognize common fall-flowering grass species of the Georgia Piedmont. During the first half of the class, we will dissect grass plants to learn the basic structures that are useful for identification in the field. The last two hours of the class will be spent in the field examining a variety of native and exotic grasses. Be sure to bring a hand lens if you have one.

Groundcover Restoration

Saturday, Nov. 1
9 a.m. – 1 p.m.
Heather Brasell, environmental educator
Gaskins Forest Education Center, Alapaha, GA
https://t.uga.edu/8sg

This class will visit a variety of sites to compare and contrast different groundcover restoration projects and management practices. With an emphasis on management decisions rather than on identifying specific plants, this course will discuss common challenges, successes and landscape restoration strategies while managing invasive plant species. The types of restoration sites and projects surveyed in this class will include: minimum understory management (thin and burn), economy understory restoration (thin and burn with limited use of supplemental seeds), high-quality seed mix for pollinator gardens, conversion from turf grass to meadow and wetland rehabilitation. **Please note that this class is located outside of the Athens area.**

Invasive Plant Control Strategies, Techniques, Tips, Tricks and Tools!

Saturday, Nov. 15
9 a.m. – 1 p.m.
Gary Crider, naturalist and invasive plant control specialist
Virtual program
https://t.uga.edu/9B4

This class will detail safe, practical and effective control methods for three critical species: Japanese Stiltgrass, English Ivy and Chinese Privet. With the right strategies, tools and techniques, these invasive plants can be brought under control, reducing their impacts and improving the ecological function of affected sites. Other problematic species will also be discussed, including Japanese Knotweed, Callery Pear, Kudzu and Japanese Chaff Flower.

For more information, email: sbgeduc@uga.edu
To register online, visit www.botgarden.uga.edu/events

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