



Sustainable Landcare Accreditation (DRAFT)

Day 1 – Tuesday, February 11, 2020

8:30 – 9:30am (60 Minutes)

Introduction to Sustainable Landcare (pg. 1-5, 9-10, 21-22)

Instructor: Juliette Olshock and Gabe Tilove

Objectives:

- Learn about Phipps SLA
 - o Describe Phipps Sustainable Landcare Principles
 - o Name some sustainability efforts of Phipps.
- Learn about NOFA OLC
 - o Name the basic principles on which the NOFA OLC standards are based.
 - o Explain how to use the standards and their format.
- Explain the problems with synthetics
 - o Name health concerns of pesticide exposure/residues.
 - o Explain the affects to natural systems by an increase of fixed nitrogen in the environment.
 - o Describe how old growth forests flourish for hundreds of years without any synthetic fertilizers, pesticides or other inputs.
 - o Discuss the differences between “feeding the soil” and “stimulating plant growth”.
 - o Name reasons why ‘synthetic fertilizers are a stressful way to fertilize’.
 - o Name unintended consequences of fertilizer applications.
 - o Describe the procedures for emergency non-organic rescue treatment provision in the standards.

9:30 – 10:15am (45 Minutes)

Course Overview (pg. 5-6)

Instructor: Juliette and Gabe

Objectives:

- Identify other participants, the work that they do and their interest in sustainability.
- Describe the course schedule and procedures.
- Explain what is required for Phipps Sustainable Landcare Accreditation.

10:45 – 12pm (75 Minutes)

Most Problematic Pests and Disease (pg. 50-53)

Instructor: Dr. Ryan Gott, Associate Director of Integrated Pest Management, Phipps Conservatory

Objectives:

- Identify most common arthropod pests (insects/mites) in WPA.
- Describe how to determine action thresholds of a pest.
- Describe pest outbreaks and the difference between cosmetic problems and true health concerns for a plant.
- Explain the disease triangle.
- Describe what disease is and what the causative agents of disease are.
- Identify and describe signs and symptoms of disease.

12:45 – 1:45pm (60 Minutes)

Integrated Pest Management (pg. 50-53)

Instructor: Dr. Ryan Gott, Associate Director of Integrated Pest Management, Phipps Conservatory

Objectives:

- List the five-step process for proper management of insects and disease that is completed before pesticides are considered.
- Name and identify the components of IPM and how they help suppress pest populations.
- Identify and describe signs and symptoms of pest insects.
- Name the basic steps for diagnosing plant problems and the resources available. (to sandy?)
- Identify some of the common beneficial insects encountered in Western PA and describe how they keep pest populations in balance.

2:15 – 4pm (105 Minutes)

Site Analysis and Design (pg. 7-8)

Instructor: Gwen Wisniewski, Owner, LGDG Landscape and Garden Design by Gwen

Objectives:

- Describe the design process.
- Identify key elements of a site. Describe the ecology of a site from these elements.
- Make observations of a landscape completing a checklist of physical elements, existing organisms, and cultural elements.
- Explain the importance of the right plant in the right place.
- Design a landscape that connects a client’s goals with a site’s ecological characteristics, benefits and limitations.
- Describe ways in which plants and animals make up an interdependent living system.
- List the elements of landscape design.



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Day 2 – Wednesday, February 12, 2020

8:45 – 9:30am (45 Minutes)

Soil Fundamentals

Instructor: Juliette Olshock, Phipps Sustainable Landcare

Objectives:

- Describe how nutrients are cycled within a natural landscape and why this is important to mimic in a garden.
- Describe the distinguishing characteristics of healthy soil.
- Explain how these components result in water movement, aggregation, and nutrient cycling.
- List three benefits of a healthy soil food web.
- Describe nutrient pools in soil: including soluble, exchangeable, and total.
- Explain what a soil profile is and what it means.
- Describe the physical, chemical and biological aspects of soil and how to create and maintain a healthy soil ecosystem.
- Name the consequences of human management practices on soil function.

9:45 – 10:30am (45 Minutes)

Fertilizers & Amendments

Instructor: Riley Sunday, Allegheny Co. Conservation District

Objectives:

- Describe three ways to maintain organic matter on-site.
- Discuss the differences between “feeding the soil” and “stimulating plant growth”.
- Name preferred and allowed soil and plant amendments including microorganisms, inoculants and potting mixes.
- Explain basic nutrient cycles: how nutrients become available to plants.
- Describe how old growth forests flourish for hundreds of years without any synthetic fertilizers, pesticides or other inputs.
- Name reasons why ‘synthetic fertilizers are a stressful way to fertilize’.
- Describe some of the reasons why fertilizers, organic or inorganic, and amendments become necessary.
- Name two of the three unintended consequences of fertilizer applications.

10:45 – 11:45pm (60 Minutes)

Soil Testing

Instructor: Riley Sunday, Allegheny Co. Conservation District

Objectives:

- Explain why it is important to do a soil test.
- Explore soil testing procedures and how to select the proper fertilizers and amendments for optimal soil health. Healthy soil is the first step to healthy plants.
- Given soil test results, a landcare professional explains the results of the test and gives organic fertilizer and amendment recommendations to improve or maintain the health of the soil.
- Describe the preferred means of handling toxic elements in the soil.

12:30 – 1:15pm (45 Minutes)

Fertilizer Calculations

Instructor: Scott Campbell, President, VIP Turf Care, INC.

- Calculate the correct amount of fertilizer you need for proper application.

1:15 – 2:15pm (60 Minutes)

Compost and Compost Tea

Instructor: Travis Leivo, Owner, Shadyside Worms

Innovations

Objectives:

- Explain why one would use compost, compost extract or compost tea.
- Name advantages of compost as compared to topsoil and mulch alone.
- Describe different compost recipes including various starting materials and characteristics of finished compost.
- Explain how compost management practices affect compost quality.
- Describe how to make sure that various pathogens and weeds can be prevented from developing in compost.
- Observe the process of brewing your own compost tea for increased plant fertility.
- Describe critical production factors that help assure there are no pathogen problems in compost tea.
- Describe how one assesses extract/compost tea quality.

2:45 – 4:15pm (90 Minutes)

Sustainable Landcare Maintenance

Instructor: Philip Bauerle, Landscape Technician, Eichenlaub

Objectives:

- Describe methods and techniques of sustainable landcare maintenance.
- Design a landscape management program to work with the existing ecosystem.
- Practice good water management and conservation.
- Explain proper techniques for soil preparation, sheet mulching, and nutrient building with cover crops and green manures.
- Name advantages and disadvantages of mulch materials.
- Explore various types and benefits of using mulches and ground covers.
- Evaluate various mulches in terms of sustainability.
- Name the dangers of too much mulch or mulch piled up against the trunks of plants.
- Describe the use of ground covers to prevent weeds and/or to improve soil fertility.
- Describe various organic landscaping implements such as weed wrench, battery operated tools, horticultural vinegar, and flame weeders.
- Name methods of wildlife control and deterrents for deer, groundhogs, voles and rabbits.
- List best practices to reduce fossil fuel usage in landscaping.



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Day 3 – Thursday, February 13, 2020

8:45 – 10:15pm (90 Minutes)

Stormwater Management

Instructor: Andrea Haynes and Brian Funk, StormWorks

Objectives:

- Explain how site characteristics, regulations, and client desires shape Green Stormwater Management (GSI) systems.
- Explain why all water resources are valuable and should be conserved.
- Describe how they would factor water use into all site designs, construction and management.
- Explain how water moves through natural and developed landscapes.
- Select appropriate planting materials and mulches.
- Describe common challenges of constructing and maintaining GSIs.
- Identify appropriate and inappropriate sites for storm water infiltration.
- Discover various permeable paving options for water infiltration.

10:30 – 12pm (90 Minutes)

Intro to Turf and Organic Lawn Care

Instructor: Chip Osborne

Objectives:

- Learn organic methods for lawn care, including planting, mowing, fertility and pest management.
- Explain why organic lawn care is better than chemical based lawn care.
- Describe cultural, chemical and biological control measures available for control of turf pests.
- Explain the benefits of using a seed mix with different varieties of grasses.
- Name three ways that nutrients can be added to a lawn.
- Name strengths and weaknesses of various grass types.
- Describe the characteristics of indicator weeds and how to control them without using poisons.
- Identify major insect pests of turf.
- Describe the methods for monitoring turf pest activity.
- Match management tools with particular turf pest.
- Name limitations for organic management of certain turf grass insect pests.

12:45 – 1:45pm (60 Minutes)

Lawn Alternatives

Instructor: TBD

Objectives:

- Name low-maintenance lawn alternatives for a variety of site conditions.
- Explain how maintaining smaller areas of lawn reduces maintenance costs and is better for the environment.

2 – 3pm (60 Minutes)

Invasive Plant Management

Instructor: Erin Copeland, Pittsburgh Parks Conservancy

Objectives:

- Explain the importance of preserving native plant species in the landscape.
- Name the qualities that characterize an invasive species, define the term invasive species and explain the problems associated with invasive species.
- Given a scenario of a homeowner with an invasive species problem, the professional details a plan of action for control, including pre-control protocols and proper disposal of invasive plant.
- Identify the most common invasive plants in Pittsburgh and Western Pennsylvania.
- Identify and describe management of invasive plants.
- Name two main ways that landcare professionals unknowingly contribute to the spread of invasive plants.

3:15 – 4:15pm (60 Minutes)

Sustainable Inspirations

Instructor: TBD

Objectives:

- Discuss examples of Sustainable Landcare design and installation projects.



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Day 4 – Friday, February 14, 2020

8:30 – 9:30pm (60 Minutes)

Planting for Birds and Beneficials

Instructor: Roxanne Swan, Environmental Botanist and Horticulturist, Audubon Society of Western Pennsylvania

Objectives:

- Describe the process for creating gardens that attract birds and beneficials.

9:45 – 11:30pm (105 Minutes)

Native Plant Design

Instructor: John Totten & Linda Kramer, Owners, Gardens! LLC and Locust Spring Nursery

Objectives:

- Describe native plant design techniques.
- Explain the benefits of native plants.
- Explain the benefits of diversity.

12:15 – 1:15pm (60 Minutes)

Tree Selection and Care

Instructor: Joe Stavish, Community Education Coordinator, Tree Pittsburgh

Objectives:

- Explore tree species that do well in urban environments and small yards.
- Identify proper planting techniques for healthy trees.
- Describe how to select, prepare and plant bare root, containerized and B&B plant materials.
- Describe the correct time and method of pruning woody plants.
- Name five preferred pruning techniques.
- Name organic cultural practices used to maintain and enhance plantings.
- Prune in a manner that does not cause harm or injury to woody plants.

1:15 – 1:45pm (30 Minutes)

Course Evaluation – Evaluate the course.

2 – 2:30pm (30 Minutes)

Exam Review – Review concepts learned in the last 4 days of class.

2:30 – 3:45pm (75 Minutes)

Accreditation Exam – Pass the exam to qualify for accreditation.



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Not included:

Wildlife Management

- Identify wildlife species that is causing a problem and develop management strategies specific to that animal.
- Protect, maintain and improve critical habitats for wildlife. They respect animals, minimizing their suffering when management practices must be put into place.
- Name seven preferred wildlife management techniques.
- Name methods of wildlife control and deterrents for deer, groundhogs, voles and rabbits.

Energy, Pollution, and Climate Change

- Explain three of the five most obvious impacts related to fuel-powered land care equipment.
- Name ways that they can reduce fossil fuel consumption and increase the use of renewable energy sources.
- Describe ways to return carbon to the soil.
- Name emissions and particulate matter hazards from landscaping.
- List best practices to reduce fossil fuel usage in landscaping.
- Describe the carbon footprints of landscaping practices.
- Identify the pollutants generated by landscaping practices, which include noise pollution.

Water Use and Water Quality

Inland Wetlands and Watercourses

- Describe the importance of maintaining wetlands and minimizing their disturbance.
- Given a location, name local wetland resources and professionals in order to identify wetlands on the area and list local regulations regarding wetlands.
- Name three activities that are prohibited near a wetland.
- Identify three characteristics of a wetland.