

# Certificate in Therapeutic Horticulture Handbook

August 1, 2025 – April 25, 2026

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Engaging with Plants and Nature to Improve Human Health & Wellbeing

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North Carolina Botanical Garden

[ncbg.unc.edu](http://ncbg.unc.edu)

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# Indigenous Land Acknowledgement

The lands we steward are the ancestral homeland of several Siouan-speaking tribes and a part of the recognized home of the Occaneechi Band of the Saponi Nation. We celebrate the many Native people, who, to this day, meet, gather, walk, hike, and engage with the habitats and gardens on this land, and we honor their Native ancestors and Elders, past, present, and future.

We are grateful for the engagement of Indigenous people with the Garden across its history and strive to be of continued value to all Native communities in North Carolina. We invite you to join us in learning the history about the land we each steward and supporting Native artists and entrepreneurs and organizations advocating for American Indian communities, such as the UNC American Indian Center. *For more information on the history of the land the North Carolina Botanical Garden stewards, prior to the Garden's existence, see <https://ncbg.unc.edu/about/diversity-equity-inclusion/land-acknowledgement/>.*

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# Foreword

The North Carolina Botanical Garden (NCBG) is pleased to offer the Hybrid Certificate in Therapeutic Horticulture (HCTH), which provides comprehensive therapeutic horticulture training to professionals and students in allied health, education, and design fields. This certificate is a strong credential for those interested in incorporating therapeutic horticulture into their chosen field of work. It is our hope that each student who completes this program will come away with the knowledge, practical expertise, and confidence to make therapeutic horticulture a living, thriving therapeutic modality in the communities we serve.

NCBG is a university-affiliated botanical garden with an outstanding reputation as a garden that integrates a conservation ethic into all of its programs. We are the region's most comprehensive center of knowledge on plants in North Carolina and the southeastern United States, and we provide a broad audience with inspirational experiences, opportunities for health and wellness through outdoor activities, and educational programs within a scientifically based institution. It is the Garden's vision to have a profound influence on how people value and interact with the environment and the biologically diverse world.

The Garden's mission is:

*"To inspire understanding, appreciation, and conservation of plants in gardens and natural areas and to advance a sustainable relationship between people and nature."*

The Certificate in Therapeutic Horticulture expands this mission with its goals:

1. To provide a balanced curriculum of both therapeutic horticulture practices and traditional horticultural knowledge that enables graduates to use plants and nature to improve human health and wellness.
2. To expand the field of therapeutic horticulture, so more people in various settings and situations can have access to this unique and dynamic therapeutic treatment method.

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The Certificate in Therapeutic Horticulture awards a certificate of 'mastery' for students who successfully meet the following criteria:

1. Watch/complete all assigned online lectures & assignments. (2-4 hrs./mo.)
2. Attend 6 out of 7 in-person monthly workshops at the NC Botanical Garden.
3. Complete the final written practicum within a structured template provided to students.
4. Complete 8 volunteer hours in a community-based garden setting(s) during the 9-month program (August 2025 - April 2026).

Upon completion of the program, students will have learned the following:

- Historical and current uses of therapeutic horticulture, research findings to support its efficacy, and the wide range of fields that interface with the therapeutic horticulture profession.
- How to assess the needs of sites and populations, develop meaningful goals, and design plant and nature-based activities that meet client-centered goals.
- How to develop, facilitate, and manage a TH program. Roles and responsibilities of a TH program manager.
- Tools and methods for adapting, modifying, and delivering plant and nature-based activities for people of varying abilities and needs.
- Fundamentals of horticulture, including starting seeds, asexual propagation; vegetable, herb, flower, and indoor plant gardening; how to build good soil; and plant diseases and pests.
- How therapeutic horticulture complements other treatment options in clinical and non-clinical (community) settings. Interdisciplinary collaboration/treatment.
- Business considerations when developing a therapeutic horticulture program including budget, billing, purchasing, and program evaluation.
- How to communicate and market a TH program narrative/services.
- How to integrate principles of diversity, equity, and inclusion into TH practice.
- Universal Design and environmental accessibility principles/features that enable participant participation and empowers barrier-free access.
- The fundamentals of garden/therapeutic garden design and indoor programming site setup/design.

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# 1. INTRODUCTION

## 1.1 WHO SHOULD APPLY?

Are you...

- Invested in human health and want to incorporate the healing effects of plants and the natural world into practice?
- Looking for ways for clients to increase creative ventures and connections to plants and their environment?
- Eager to build confidence and enhance understanding of therapeutic horticulture?
- Interested in connecting with like-minded people and professionals who share your passion?

**If any of this sounds familiar, you are in the right place.**

The Certificate in Therapeutic Horticulture is designed for:

- Working professionals in allied health fields such as: Occupational Therapy, Physical Therapy, Recreational Therapy, Social Work, Psychology, Rehabilitation Counseling, or other related allied health occupations
- Working professionals in allied education fields such as: K-12 education, college educators, teachers of exceptional children, etc.
- Working professionals in allied design fields such as: Landscape design/architecture, urban planning & development, etc.
- Current students in the above fields
- Graduated students in the above fields not yet working in their fields

\*No previous horticulture knowledge is required.

Note: Please contact the NCBG Therapeutic Horticulture Program Manager Emilee Weaver: [erweaver@unc.edu](mailto:erweaver@unc.edu), if your field is different from those outlined above and you'd like to be considered for the program.

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## **1.2 BENEFITS OF THE NCBG CERTIFICATE IN THERAPEUTIC HORTICULTURE**

For over 45 years the North Carolina Botanical Garden has served the public through courses in botany, horticulture, botanical art, native plants, conservation, and related fields. Since 1978, the Horticultural Therapy Program within the Education Department has offered one-day trainings introducing the field of therapeutic horticulture. Feedback has pointed to a growing interest in more in-depth courses in therapeutic horticulture.

Furthering our commitment to advancing the profession of Therapeutic Horticulture and responding to expressed interest, we are delighted to offer an accessible and comprehensive program. We believe strongly in the benefits of therapeutic horticulture for individuals and communities and are invested in growing the practice.

### ***Accessible***

Becoming a registered Horticultural Therapist or Therapeutic Horticulture Practitioner through the American Horticultural Therapy Association (AHTA) is an extensive process requiring college-level horticultural therapy courses, 480+ hour internship/work experience and for HTR status, plant and human science college courses from an accredited college/university. NCBG's Hybrid Certificate in Therapeutic Horticulture (HCTH) offers an alternative educational opportunity to working professionals and students. Courses are offered online and in-person on weekends.

This certificate is NOT accredited by the American Horticultural Therapy Association, and it does not meet the requirements for AHTA's HTR or THP registration process. HCTH was designed to improve access, reduce costs, and make it possible for those who could otherwise not participate in AHTA-accredited programs due to the extensive and costly process of participating in such programs.

### ***Comprehensive***

During this nine-month program, students will receive approximately 2-4 hours of pre-recorded lectures each month that cover a wide variety of TH topics. There is no limit to the number of times students can listen to the lectures, and they can be accessed 24/7 on our online learning platform. On the second Saturday of each month (except December and April-see course schedule), we will meet as a group at the North Carolina Botanical Garden and discuss the lecture content, participate in hands-on activities that reinforce the online content, network with classmates and instructors, and attend field trips to therapeutic horticulture programs that are local to the Garden.

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### 1.3 WHAT IS THERAPEUTIC HORTICULTURE?

Therapeutic horticulture is the practice of utilizing plants and nature-based activities to promote emotional, physical, spiritual, vocational, cognitive, and social well-being for clients. Participants' involvement with plants can be active (for example, engaging in gardening activities such as planting seeds or pruning plants) or passive (for example, walking or sitting in a garden setting). Therapeutic horticulture is facilitated by a registered horticultural therapist or other professionals trained in the use of horticulture as a therapeutic tool.

Benefits of therapeutic horticulture include physical activity, relaxation and enjoyment, skill development, creative expression, sensory stimulation, intellectual and personal growth, social interaction, and a spiritual connection with life. Therapeutic horticulture has been used to support;

- ❑ **MENTAL HEALTH GOALS** such as reducing stress and tension, diminishing anger, improving mood, developing coping skills, enhancing personal responsibility, fostering hope, learning to work independently.
- ❑ **SOCIAL GOALS** such as improving the ability to work with others, improving communication skills, reducing social anxiety, reducing irritability and aggressiveness.
- ❑ **COGNITIVE GOALS** such as learning new skills, regaining lost skills, improving memory, improving ability to initiate tasks, improving attention to detail.
- ❑ **PHYSICAL GOALS** such as improving coordination, retraining muscles, improving balance, improving strength.

Therapeutic horticulture is practiced in varied settings including rehabilitation programs, psychiatric and mental health facilities, hospitals, correctional facilities, schools, nursing homes and senior centers, and community and botanic gardens. People who benefit from therapeutic horticulture include adults and children with physical, psychological, and developmental disabilities, those recovering from illness or injury, people wishing to improve their quality of life in hospice or nursing home settings, persons who have experienced abuse and their abusers, public offenders, and those recovering from addiction.



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## 2. GENERAL PROGRAM INFORMATION

Successful completion of the program requires viewing all online lectures, attendance of 6 out of 7 in-person workshops, occasional homework, passing a final take-home practicum, and completing 8 volunteer hours in a plant or human services-related setting. Course scheduling is designed for graduation within a 9-month period.

### Contact

Therapeutic Horticulture Program Manager - Emilee Weaver

Director of Learning & Community Engagement - Joanna Massey Lelekacs

[ncbg.unc.edu/certificate-programs/](https://ncbg.unc.edu/certificate-programs/)

Phone (General): (919) 962-2413

### 2.1 PROGRAM POLICY

NCBG reserves the right to adjust the course schedule or substitute faculty. Policy and procedure will be revised with new versions of the program.

### 2.2 COURSE CALENDAR

August 1, 2025 – April 25, 2026

\*See section 4.2

Courses will be listed on the NCBG website under, “Hybrid Certificate in Therapeutic Horticulture”: [ncbg.unc.edu/certificate-programs/](https://ncbg.unc.edu/certificate-programs/). It is also listed on pages 17-18 of this handbook. Please note: No in-person workshop will be conducted in December 2025 and the April 2026 in-person workshop will be held on the fourth Saturday of the month.

### 2.3 PROGRAM REGISTRATION

Students must be at least eighteen years of age and meet requirements detailed in Section 1.1 “Who Should Apply?” of this Handbook.

Successful registration will be dependent on both the order in which the registration form is completed and suitability for the program. Maximum enrollment is 20. Upon reaching 20 enrolled students, a waitlist will be created. Registration will open on December 2, 2024.

The link to register will be available on the NCBG website under “Certificate in Therapeutic Horticulture”: [ncbg.unc.edu/certificate-programs/](https://ncbg.unc.edu/certificate-programs/)

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## 2.4 PAYMENT OPTIONS

**Registration opens:** December 2, 2024

**Registration closes:** July 15, 2025

Registration Dates		Payment Plan	Initial Payment	Payment Due May 31, 2025	Payment due July 31, 2025
Early Bird	Register by February 28, 2025	Pay in full	\$1,850.00	n/a	n/a
		Pay in two installments	\$925.00	n/a	\$925.00
		Pay in three installments	\$500.00	\$675.00	\$675.00
Regular	Register on or after March 1, 2025	Pay in full	\$1,950.00	n/a	n/a
		Pay in two installments	\$975.00	n/a	\$975.00
Late	Register after June 1, 2025	Pay in full	\$2,250	n/a	n/a

## 2.5 REFUND POLICY

If a class is cancelled due to insufficient enrollment or has been filled prior to receipt of your payment, you will be notified, and your payment will be refunded in full.

- Cancellations made on or before June 1, 2025 will be issued a refund minus a \$200 administrative fee
- Cancellations made after June 1, 2025, but prior to July 31, 2025 will be issued a refund minus a \$500 administrative fee
- No refunds will be issued for cancellations made on or after July 31, 2025

Questions? Contact the Registrar at [ncbregistrar@unc.edu](mailto:ncbregistrar@unc.edu) or 919-962-4882.

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## 2.6 SCHOLARSHIPS

NCBG will grant four need-based partial-scholarships. These scholarships will cover \$1,200 of the program costs, requiring scholarship-recipients to pay a total of \$650.00 for the program. Submission of the application does not guarantee that a student will receive the scholarship.

To apply for a scholarship, follow the standard HCTH registration link on the NCBG website, complete all information fields, and when you reach the 'payment option' section, select the option, "I am applying for an HCTH scholarship." You will not be charged any fees at this time. We hold four scholarship seats (from the total 20) aside to ensure that scholarship students are secured a seat in the program.

The scholarship application will be posted on the NCBG website ([ncbg.unc.edu/certificate-programs/](https://ncbg.unc.edu/certificate-programs/)) on December 2, 2024. Students must submit the application **before 12 a.m. on February 28, 2025**. Applications received after 12 a.m. on March 1, 2025, will not be considered. All applicants will be informed whether they were or were not selected for the scholarships by March 15, 2025.

## 2.7 ENROLLMENT CONFIRMATION

Confirmation of program registration will be sent via email upon completion of online registration as well as for any payments made.

## 2.8 CANCELLATION POLICY

In case of inclement weather, or if an in-person class is cancelled for any other reason, students will receive an email by 8:00am the morning of the scheduled class. Every effort will be made to inform students of a cancelled in-person class with as much advance notice as possible.

## 2.9 ATTENDANCE POLICY

To receive a certificate of mastery, students are permitted one in-person class absence, or a total of 6 hours. If a student is absent for more than one class (6 hours), they may continue in the program attending classes; however, they will not receive a certificate.

If extenuating circumstances require additional absences, allowances will be considered at the discretion of the Director of Learning & Community Engagement in consultation with the course instructor.

**Before registering for this program, PLEASE ensure that you'll be able to attend at least 6 of the 7 scheduled in-person workshops.** To accommodate winter holiday

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schedules, no in-person workshop will be held in December 2025, but online content will still be assigned during this month. Also note, the final in-person workshop will be held on April 25, 2026, which is the fourth Saturday of the month.

## **2.10 SUPPORTIVE MATERIAL**

While outside reference material is not required for purchase in order to enroll in or complete the certificate program, we strongly advise that you acquire one of the following texts. These provide foundational information for therapeutic horticulture, and they will be useful references as you integrate therapeutic horticulture into your practice.

1. *The Profession and Practice of Horticultural Therapy*, Haller, Kennedy and Capra eds., 2019
2. *Horticulture as Therapy, Principles and Practices*, Simson and Straus eds, 1998
3. *Horticultural Therapy Methods: Making Connections in Health Care, Human Services, and Community Programs*, by Haller and Kramer eds., 2006

An extensive bibliography of useful reference material will be presented during the first class. Individual teachers may recommend other reference materials.

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## 3. Program Completion

### 3.1 PROGRAM COMPLETION REQUIREMENTS

To receive a certificate upon completion of the program, you must complete the following requirements by the deadlines stated.

ACTIVITY	COMPLETION REQUIREMENT	DEADLINE
<b>Online lectures</b>	Watch all online lectures	April 25, 2026
<b>In-person classes</b>	Attend 6 out of 7 monthly in-person classes	
<b>Service Learning</b>	Complete and document 8 hours of volunteer service in a plant-related setting	
<b>Practicum</b>	Pass the final take-home practicum	By 11:59 p.m. on April 19, 2026

### 3.2 VOLUNTEER EXPERIENCE

The intent of completing volunteer hours is to provide students with a service-learning opportunity that is directly related to the mission of the HCTH and applies the knowledge gained in the coursework. A minimum of 8 hours of direct service learning is required. It is highly recommended that most volunteer hours are completed in warmer months (Aug.- Nov. and/or Mar.- Apr.). Students will independently establish a relationship with one or more volunteer site(s) of their choosing and complete their hours outside of scheduled HCTH workshop dates.

On the following page, we have provided a list of volunteer opportunities that are local to Chapel Hill and surrounding areas. Students are welcome to find their own volunteer opportunities at sites that interest them.

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## ***Getting Started***

- **Develop a proposal**

Determine which volunteer site(s) you would like to volunteer with and establish who will serve as your site advisor during your service.

- **Submit your proposal**

Complete the Service-Learning Volunteer Hours Proposal form in the following section and submit it to the NCBG Therapeutic Horticulture Program Manager. You will be notified by email when your proposal has been approved, and you can begin your volunteer service.

- **Volunteer service**

Complete your proposed service. Provide documentation to the NCBG Therapeutic Horticulture Program Manager that states the location, number of hours served, and the tasks that were completed and have the log verified and signed by the site supervisor / administrator (a form will be provided). Volunteer hours and corresponding documentation must be submitted by April 25, 2026.

## ***Potential Volunteer Sites***

- [North Carolina Botanical Garden](#)
- [American Community Gardening Association \(locate a garden near you!\)](#)
- [Carolina Community Garden](#)
- [Carrboro Farmers' Market](#)
- [Durham Farmers' Market](#)
- [Durham Public Schools Hub Farm](#)
- [Farm at Penny Lane](#)
- [JC Raulston Arboretum](#)
- [Sarah P. Duke Gardens](#)
- [Transplanting Traditions](#)
- Volunteer opportunity of own choosing, approved by instructor

*Note: Several of these volunteer sites offer weekday and/or weekend opportunities.*

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*Hybrid Certificate in Therapeutic Horticulture*  
**3.3 Service-Learning Volunteer Hours Proposal**



Name \_\_\_\_\_ Date \_\_\_\_\_

Email \_\_\_\_\_ Phone Number \_\_\_\_\_

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**Proposed Volunteer Hours:**

Volunteer Site \_\_\_\_\_

Volunteer Supervisor Name \_\_\_\_\_

Supervisor Email \_\_\_\_\_

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**Please provide a paragraph or two detailing the types of tasks you plan to undertake in your volunteer service-learning:**

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### **3.4 PROGRAM COMPLETION DEADLINES**

Students must have completed all online lectures, in-person workshops, and volunteer service hours by April 25, 2026. The final take-home practicum assignment will be explained, and its guidelines will be provided at the first in-person workshop on September 13, 2025. The practicum is due to Emilee Weaver [erweaver@unc.edu](mailto:erweaver@unc.edu) by 11:59 p.m. on April 19, 2026 (the week before the last in-person workshop). Upon receipt of volunteer service documentation and satisfactory final practicum, notification will be sent to the student and a certificate of mastery will be emailed/mailed by May 22, 2026.

## **4. CURRICULUM**

### **4.1 COURSE LISTING & CONSOLIDATED SCHEDULE**

The curriculum provides instruction in achieving academic proficiency and understanding of the concepts and practice of therapeutic horticulture. The online and in-person elements of the program are delineated in the schedule. The 'opens' date listed for the online content indicates the day that the lectures will be available in the online learning platform 'Padlet' for review each month. Once online content has been opened to students, access remains open for the duration of the program and can be viewed 24/7.

*See course schedule on next page.*



## 2025/26- Hybrid Certificate in Therapeutic Horticulture Schedule

	Date	#	Class Title	Time	Hrs.
<b>September</b>	<b>ONLINE CONTENT</b> Opens: Aug. 1, 2025		Introduction to Therapeutic Horticulture (Historical and Theoretical Overview)	Self-Paced	2 hrs. lecture video
	<b>IN-PERSON</b> Saturday Sept. 13, 2025	1	Program Manager & Student Introductions	9am-12pm	3
		2	Off-Site Field Trip	1pm-4pm	3
<b>October</b>	<b>ONLINE CONTENT</b> Opens: Sep. 15, 2025		Treatment Goal Development & Principles of Site/Participant Assessment & Safety	Self-Paced	4 hrs. lecture video
	<b>IN-PERSON</b> Saturday Oct. 11, 2025	3	TH Site & Participant Assessment Techniques	9am-12pm	3
		4	Off Site Field Trip	1pm-4pm	3
<b>November</b>	<b>ONLINE CONTENT</b> Opens: Oct. 13, 2025		Adaptive Tools, Techniques, and Accommodations for Diverse Populations	Self-Paced	4 hrs. lecture video
	<b>IN-PERSON</b> Saturday Nov. 8, 2025	5	Adaptive Tools & Techniques Workshop	9am-12pm	3
		6	Off-Site Field Trip	1pm-4pm	3
<b>December</b>	<b>ONLINE CONTENT</b> Opens: Nov. 10, 2025		TH Activity Development & Facilitation	Self-Paced	2.5 hrs. lecture video
	<b>NO December In-Person Workshop</b>	7	Create Your Own Activity Analysis Activity	Self-Paced Assignment	N/A
<b>January</b>	<b>ONLINE CONTENT</b> Opens: Dec. 15, 2025		TH Basic Horticulture Skills Raised Bed & Container Gardening	Self-Paced	2 hrs. lecture video
	<b>IN-PERSON</b> Saturday Jan. 10, 2026	8	How to Calculate TH Activity Costs & Labor	9am-10:30am	1.5
		9	How to Establish Plant Toxicity Narratives & Thresholds	10:30am-12pm	1.5
		10	Inviting Herbs into Your TH Practice	1pm- 4pm	3

<b>February</b>	<b>ONLINE CONTENT</b> Opens: Jan. 12, 2026		<b>Planning, Purchasing &amp; Production Strategies for Plant Sales and TH Activities</b>	Self-Paced	<b>2 hrs.</b> lecture video
	<b>IN-PERSON</b> Saturday Feb. 14, 2026	11	<b>Seed Propagation Methods</b>	9am-10:30am	1.5
		12	<b>Outdoor Plant Propagation Methods</b>	10:30am-12pm	1.5
		13	<b>Indoor Plant Propagation Presentations</b>	1pm-4pm	3
<b>March</b>	<b>ONLINE CONTENT</b> Opens: Feb. 16, 2026		<b>Introduction to Universal Design Intro to Vegetable/Flower/Therapeutic Design</b>	Self-Paced	<b>3 hrs.</b> lecture video
	<b>IN-PERSON</b> Saturday Mar. 14, 2026	14	<b>Therapeutic Garden Design Workshop</b>	9am- 12pm	3
		15	<b>Fundamentals of Soil &amp; Growing Media</b>	1pm-2:30pm	1.5
		16	<b>Managing Pests, Diseases, and Weeds</b>	2:30pm- 4pm	1.5
<b>April</b>	<b>ONLINE CONTENT</b> Opens: Mar. 16, 2026		<b>Developing TH Program Budget &amp; Marketing Final Practicum Due April 19th Program Proposal Presentation Due Apr. 25th</b>	Self-Paced	<b>3 hrs.</b> lecture video
	<b>IN-PERSON</b> <b>Final Class</b> Saturday Apr. 25, 2026	17	<b>TH Program Proposal Presentations</b>	9am- 12pm	3
		18	<b>TH Budget Development Workshop</b>	1pm-3pm	2
	<b>NCBG</b>		<b>TH Ceremony &amp; Reception</b>	3pm-4pm	1

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## **4.2 HOMEWORK ASSIGNMENTS**

Students may be assigned homework at the discretion of the course instructor. If a student is absent from a workshop, they will be responsible for obtaining course materials to ensure successful program completion. To receive credit for participation students must participate during the workshops and complete in-class assignments.

## **4.3 STANDARDS FOR GRADES**

All measures of program completion will be done on a pass/fail basis. No grades will be assigned.

## **4.4 CLASS DESCRIPTIONS AND OBJECTIVES**

### ***Class 1. NCBG Program Managers & Student Introductions***

**Instructors:** Emilee Weaver: NCBG TH Program Manager

Sarah Tanke: NCBG TH Community Outreach Specialist

**Workshop Description:** Let's get to know one another! As a group, we'll learn each other's professional/personal backgrounds and motivations for joining NCBG's TH Certificate program through team building activities and engage in a brief orientation of the TH program and NCBG!

### ***Class 2. Field Trip – Transplanting Traditions: Chapel Hill, NC***

Off-site field trip. Address/directions will be provided in class.

### ***Class 3: TH Site and Participant Assessment***

**Instructor:** Sarah Tanke, HTR

**Workshop Description:** Students will visit an off-site 'Care Farm' and learn how to use an assessment tool to identify and record the resources and hazards of a site to determine whether it is viable for TH programming and various diverse populations. Students will also learn how to interview and complete a participant assessment form that establishes participant interests, background information, availability, and physical function. Session documentation examples, a full tour of the farm, and a description of the farm's current therapeutic groups will be provided.

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**Learning Objectives:** Upon completion of this workshop, students will have an understanding of the following:

- How 'Care Farms' and TH programs can partner and work towards shared goals.
- How to complete a full site assessment to determine viability for TH programming.
- How to conduct an interview and use a questionnaire to determine pertinent background and baseline data with TH participants.
- The types of forms that can be used to document participant progress/outcomes.

***Class 4. Field Trip – The Farm at Penny Lane: Pittsboro, NC***

Off-site field trip. Address/directions will be provided in class.

***Class 5: Adaptive Tools & Techniques Workshop***

**Instructors:** Amy Bruzzichesi MSW, Greg Stivland OT

**Workshop Description:** Students will have the opportunity to apply the use of adaptive tools and techniques to real-world TH scenarios and populations. This course will be an active, hands-on workshop that places students in the role of the 'participant' as well as 'practitioner' so they have a firsthand account of what it feels like to be a TH participant who requires adaptive tools and techniques as well as consider the need for adapting tools and activities for TH clients. A thorough tool demonstration and recommendations for commonly used adaptive techniques will be provided.

**Learning Objectives:** Upon completion of this workshop, students will be able to:

- Identify 3 or more ways a Therapeutic Horticulture activity can be adapted.
- Identify why and how you might need to adapt a TH activity.
- Identify why and how you might need to adapt the environment when working with a client on a TH activity.
- Identify why/when adapted tools might be needed to complete a TH activity.
- Identify resources (online/books) to learn more or to purchase adaptive tools.

***Class 6. Field Trip – Forest View Elementary School: Durham, NC***

Off-site field trip. Address/directions will be provided in class.

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## ***Class 7: Create Your Own Activity Plan***

There is no in-person workshop in December. Complete the Activity Analysis Assignment posted in Padlet and email it to Emilee Weaver by the due date. Watch Catherine Crowder's activity resources video in Padlet.

## ***Class 8: TH Activity Labor & Materials Calculation Workshop***

**Instructor:** Emilee Weaver

**Workshop Description:** Students will have the opportunity to apply the activity analysis worksheet to a nature-based activity of their choosing. Students will work independently to assess the labor hours, organizational structure, and materials costs of a TH activity using a calculation worksheet that can be used to bill sites for direct services rendered (if applicable).

**Learning Objectives:** Upon completion of this workshop, students have an understanding of the following:

- Apply activity analysis to a plant-based TH activity.
- How to calculate labor and material costs for a TH activity.
- The steps required to prepare, develop, and facilitate a successful TH activity.
- The importance of communicating accurate labor and materials fees to a TH client.
- How to design high quality TH activities for \$5.00 or less by leveraging byproducts of nature and thinking outside of the 'activity box.'

## ***Class 9. How to Establish Plant Toxicity Narratives & Thresholds***

**Instructor:** Emilee Weaver

**Workshop Description:** This workshop will provide students with a basic understanding of how humans are affected by plant toxins, exposure prevention methods, and emergency responses to exposure. Students will learn plant toxicity rating/classification methods and how to determine whether a plant is 'too toxic' for various locations within community-based and clinical TH settings and populations. Numerous resources will be provided for future use and students will have the opportunity to establish their own thresholds for plant toxicity during an in-class team exercise.

**Learning Objectives:** Upon completion of this workshop, students will better understand:

- 
- How to classify/rate the toxicity of various plants.
  - The various types of effects that plant toxins can have on human bodies.
  - Toxin exposure prevention methods.
  - How to justify/explain the use of plants that have toxins in a TH program by educating and controlling the conversation with site administrators.
  - How to decide whether a plant is 'too toxic' for use with various pops./settings.

### ***Class 10. Inviting Herbs into Your TH Practice***

**Instructor:** Hannah Popish

**Workshop Description:** Join farmer and herbalist Hannah Popish, founder of Poppysol Farm + Apothecary for an afternoon that will encompass a brief intro to herbalism and a hands-on activity to engage the senses. Together we will go over some basic vocabulary to better understand the herbs and how they work synergistically with our bodies for optimal health. Students will walk away having tasted various delicious and supportive herbs and created their own tea blend as a way to deepen connection with the plants and to have something to share with potential TH participants. As the world of herbalism is vast, the category of plants we will focus on in this workshop are the nervines, plants that have shown evidence of supporting our nervous systems.

**Learning Objectives:** Upon completion of this workshop, students will better understand:

- The functions, values, and limitations of herbs as healing tools.
- Safety concerns & vocabulary associated with herbs.
- Awareness of endangered herb species and concerns around sourcing herbs.
- How to utilize herbs to stimulate the 5 senses.
- What 'nervine' plants are and how they can support the nervous system.
- How to design/facilitate a tea blending activity for TH participants.

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## ***Class 11: Seed Propagation***

**Instructor:** Laura Barth

**Workshop Description:** Students learn seed propagation techniques for native perennials and woody plants. Topics include seed collection methods, post-collection handling, cleaning equipment and techniques, seed storage, seed sowing techniques, sowing media, cultural requirements of seedlings, and dormancy requirements.

**Learning Objectives:** Upon completion of this workshop, students will have an understanding of the following:

- Basic seed collection methods.
- Basic seed propagation techniques.

## ***Class 12: Vegetative Plant Propagation Methods***

**Instructor:** Emilee Weaver

**Workshop Description:** Students will learn the fundamentals of vegetative propagation and techniques for propagating various outdoor plants by means of stem cuttings and division. Class involves hands-on experience dividing perennials.

**Learning Objectives:** Upon completion of this workshop, students will have an understanding of the following:

- Basic vegetative stem cutting propagation techniques (annuals, perennials, shrubs)
- How to divide mature herbaceous perennials and rhizome clusters.
- When and how to take vegetative cuttings from outdoor plants.

## ***Class 13: Indoor Plant Propagation Presentations***

**Instructors:** HCTH Students!

**Workshop Description:** Each student will be assigned an indoor plant and asked to research the method in which it can be propagated (see full assignment on Padlet). Students will individually present the propagation method for their plant during this in-person workshop.

**Learning Objectives:** Upon completion of this workshop, students will have an understanding of the following:

- Basic vegetative propagation techniques for a wide variety of indoor plants.
- Methods for explaining/demonstrating propagation techniques for TH participants.

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## ***Class 14: Garden Design for Therapeutic Horticulture***

**Instructors:** Kirsten Reberg-Horton & Valerie O'Brien

**Workshop Description:** This workshop introduces students to principles of landscape design utilized in the healing gardens that support TH programming. Incorporating concepts of Universal/accessible design, safety, growing conditions, plant selection and aesthetics, students will learn how to approach new and existing projects from a design perspective. Students will also have the opportunity to put pencil to paper and work through a sample design challenge using the knowledge they've gained.

**Learning Objectives:** Upon completion of this workshop, participants will be able to:

- List the important features of a safe and accessible garden.
- Understand what makes a garden therapeutic.
- Understand how the needs of diverse populations impact landscape design.
- Use a ruler to measure out spaces in a design.
- Place different species of plants within a garden based on the plant properties and environmental conditions.
- Evaluate the design of an existing garden or roughly plan a new garden for the purposes of therapeutic horticulture.

## ***Class 15: Fundamentals of Soil and Growing Media***

**Instructor:** Emilee Weaver

**Workshop Description:** This workshop will introduce participants to the properties and uses of various types of indoor and outdoor soil and growing media. Students will touch and feel numerous samples of soil and growing media, discuss their intended uses, and learn how to differentiate and select bagged/bulk soil products for specific TH activities/projects. Outdoor, in-ground soil amendment techniques will be discussed/demonstrated that can be applied to any programming site or soil type.

**Learning Objectives:** Upon completion of this workshop, participants will be able to:

- Describe the properties of well-balanced soil and growing media.
- Differentiate and select appropriate bagged/bulk soil products and amendments.
- Discuss practices for maintaining and improving soil health based on existing soil conditions and TH programming needs.
- Understand the water harnessing dynamics that each soil/media type possesses.



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## ***Class 16: Managing Pests, Diseases, and Weeds in the Garden***

**Instructor:** Jane Saiers

**Workshop Description:** This workshop introduces students to the theory and practice of integrated pest management. Participants learn about the role of fostering healthy soil in managing garden pests. They become familiar with insect, weed, and disease life cycles; plants commonly affected by these pests; and cultural, physical, biological, and chemical methods for managing diseases, insects, and weeds in the garden. Strategies for incorporating integrated pest management into therapeutic horticulture programs are explored.

**Learning Objectives:** Upon completion of this workshop, participants will have an understanding of the following:

- Describe principles and practices of integrated disease, insect, and weed management.
- Identify common garden pests in our region.
- Outline strategies for managing common insects, diseases, and weeds that impact ornamental and vegetable crops in our region.
- Use online resources as tools in pest management efforts.

## ***Class 17: TH Program Proposal Presentations***

**Instructor:** HCTH Students!

**Workshop Description:** Proposing and delivering a compelling, well-organized, professional TH program proposal is paramount to educating and compelling host sites to welcome a TH program into their indoor and outdoor spaces. This workshop will provide students with the opportunity to share key elements of their Final Practicum assignment/program proposal with their peers and gain feedback if desired.

**Learning Objectives:** Upon completion of this workshop, participants will have an understanding of:

- The information that should be included in a TH program proposal.
- How to articulate their program proposal verbally and in written form.
- How they might expand/improve upon the TH program they're proposing.
- A wide variety of program types/designs and personal delivery/proposal styles.

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## ***Class 18: TH Program Budget Development***

**Instructor:** Emilee Weaver

**Workshop Description:** This workshop demystifies TH program budget development by providing students with a straightforward budget template. Students will learn what types of costs and expenses should be factored into a TH budget, how much they should charge for their services, and how to implement a service agreement that sets realistic expectations for customers and protects their financial interests.

**Learning Objectives:** Upon completion of this workshop, participants are able to:

- Identify the costs and expenses that should be included on a TH program budget.
- Determine fair market value for independent contractor and in-house TH direct service labor hours.
- Use a TH budget template to develop a program-specific budget
- Understanding the importance of diversifying your program's income streams

## ***Class 19: Course Wrap Up- Ceremony & Reception***

**Instructors:** Emilee Weaver & Sarah Tanke

**Workshop Description:** Though our class time has come to a close, our opportunity for developing and maintaining a strong, unified therapeutic horticulture community has just begun! We'll discuss your questions about "what now??" and "where do I go from here??" A closing ceremony and reception will be held for students to connect and conclude the program as a team.

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## 5. FACULTY

### ***Laura Barth, NCSU Educator & Artist***

Laura is an instructor for the NC Extension Gardener and Longwood Gardens Online Non-Credit Plant ID courses and NC Extension Gardener and North Carolina Botanical Garden Online Therapeutic Horticulture series. She is also an avid gardener, musician, and artist/photographer with a passion for horticulture education, communication, and research.

### ***Catherine Crowder, HTR***

Catherine Crowder is a contract horticultural therapist working with various populations: long-term care residents, veterans, cancer patients and survivors and women's groups. She received her horticultural therapy training through HTI in 2014 and completed an internship at Hospice and Palliative Care of Greensboro. Her long-term project, planting "Hope Pots", is still used as part of the holiday grief counseling sessions at hospice. She enjoys consulting on creating therapeutic spaces and giving presentations on the benefits of being mindful in nature and the lessons learned. Prior to this career shift, Catherine worked in various marketing and corporate positions throughout the Southeast.

### ***Amy Bruzzichesi, MSW, HTR***

Amy Bruzzichesi is the NC State Cooperative Extension Therapeutic Horticulture Program Manager. With over 30 years of social work experience working with adults and their families in a variety of care settings, plants have always been a common denominator and a way to connect with people navigating life's challenges. Amy is course administrator and co-instructor for the NC Botanical Garden - NC State University partnership's Online Certificate in Therapeutic Horticulture program, while supporting the Extension agents in all 100 counties as they explore TH in their communities, and conducting statewide and national outreach initiatives to educate the public on the potential of TH. Amy also maintains a small private practice working one-on-one with elders, helping to modify their own tools and techniques to manage physical and cognitive challenges in their favorite setting-- their own gardens!

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### ***Valerie O'Brien, Landscape Designer, BLA***

Valerie O'Brien is a Landscape Designer with over five years of experience in the field. She has a Bachelor's Degree in Landscape Architecture from the SUNY College of Environmental Science and Forestry. Valerie's career has taken her on a journey from hands-on maintenance at a historic arboretum, to New York City park construction, to designing parks, greenways, and urban plazas in the Raleigh area. Her interest in healing gardens and her desire to help people connect with nature through design has led her to Horticultural Therapy. She believes that good design is the key to a great Therapeutic Horticulture program and is excited to learn and grow with the community at NCBG.

### ***Hannah Popish, Founder of Poppysol Farm + Apothecary***

Hannah Popish runs Poppysol, LLC - a one-acre permaculture inspired herb and flower farm and apothecary in Chatham County, NC. Hannah comes from generations of nature lovers and healers. She is a clinical herbalist and farmer with a master's in social work who is passionate about encouraging people to be agents in their own healing. Her herbal training began in Alamance County with folk herbalist Suki Roth, continued with David Winston's clinical herbalist two-year program, and continues each day through ongoing engagement with the plants and other continuing education opportunities. Hannah is grateful to offer a range of tincture formulas, tea blends, bath salts and salves through her website and also offers a Flower CSA seasonally that includes the farm's herbal bounty.

### ***Kirsten Reberg-Horton, Owner and Designer, Kalmia Landscape Design***

Kirsten Reberg-Horton has been designing and teaching landscape design to Master Gardeners and others since 2002. Kirsten believes that gardens offer an immersive sensory experience that has a unique ability to soothe our spirits and spark joy and creativity.

Kirsten is currently pursuing a Masters in Mental Health Counseling at NCCU in order to bring together mental health and our connection to nature. Empowering people to claim their birthright of the natural world, thereby enhancing their own and others wellbeing, brings her great joy and purpose. One of her favorite quotes is from *Green Nature Human Nature*, "Nature itself can entrap us involuntarily, occupy our minds, shut out daily cares, and allow us to become refreshed" (Lewis, C.A.).

[www.lovepeopleloveplants.com](http://www.lovepeopleloveplants.com)

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### ***Jane Saiers, PhD, HTR, AAS, RambleRill Farm, Hillsborough, NC***

Jane Saiers and her husband Darin Knapp grow certified organic fruits, vegetables, and mushrooms and raise goats and chickens at RambleRill Farm in Hillsborough, NC. They also offer on-farm experiences that enhance participants' health and well-being by awakening the senses and engaging the mind through connection with nature. Jane and Darin believe that nearly everyone can be healthier by spending daily time, be it 15 minutes or 8 hours, with plants and animals.

Website: [www.RambleRillFarm.com](http://www.RambleRillFarm.com) | Email: [Jane@RambleRillFarm.com](mailto:Jane@RambleRillFarm.com)

### ***Greg Stivland, OTR/L, HTR- Durham Public Schools***

Greg Stivland is a pediatric Occupational Therapist who has worked in private practice and public schools for 30 years. He currently works with students aged 3-21. Greg is the founder of 'Exceptional Gardeners' which is a collaborative horticultural therapy program for children and young adults with developmental disabilities which supports social inclusion, acquisition of vocational skills, participation in meaningful occupations, and improved quality of life during and after their school career. He graduated from East Carolina University in 1994 with a BS, in Occupational Therapy, received a certificate in HT through HTI in 2022, and became a Registered Horticultural Therapist in January 2024.

### ***Sarah Tanke, HTR, NCBG TH Community Engagement Specialist***

Sarah Tanke has been passionately connecting people to nature since earning her Psychology degree from the University of Florida in 2017. Her journey began with teaching outdoor education, where she spent several years before discovering her love for horticultural therapy. Captivated by its potential, she obtained her Certificate in Horticultural Therapy from the University of Florida in 2022 and has been actively involved with their program as a teaching assistant ever since. Sarah is a registered Horticultural Therapist (HTR) through the American Horticultural Therapy Association.

In her current position at NCBG, Sarah facilitates direct client services in the community and supports the Hybrid and Online Certificate in Therapeutic Horticulture programs offered by the garden. She is deeply committed to promoting inclusion, diversity, equity, and accessibility within the horticultural therapy profession, striving to make it welcoming and beneficial for all.

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***Emilee Weaver, BSW, NCBG TH Program Manager, HT Certificate (HTI)***

Emilee Weaver has been a professional horticulturist for over 25 years. Over half of those years have been spent as a horticultural therapist and consultant. Stemming from a formalized education in social work, years of in- field horticulture experience, and an HT certificate from the Horticultural Therapy Institute of Denver, she has developed and managed numerous HT/TH programs involving a variety of populations and settings. Most notably, she developed a therapeutic/vocational HT program at a high-security treatment facility for adolescent girls, a military veteran reintegration program at Denver Botanic Gardens, and an HT program at a state-managed psychiatric hospital in NC. She currently serves as the TH Program Manager at the NC Botanical Garden managing the on-site and online TH education programs offered by the Garden. She also provides extensive TH training and consultation for international partners. She co-authored the HT textbook, "The Profession and Practice of Horticultural Therapy" which was published in 2019.

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## 6. ADDENDUM

### 6.1 MISSION AND HISTORY OF THE NORTH CAROLINA BOTANICAL GARDEN

NCBG is a unit of the University of North Carolina at Chapel Hill. We further the University's mission of teaching, research, and public service through our mission:

*"To inspire understanding, appreciation, and conservation of plants in gardens and natural areas and to advance a sustainable relationship between people and nature."*

The concept of the conservation garden was developed at NCBG in the early 1990s to represent the many conservation-related activities that the NCBG is pursuing. The Garden has the following eight program themes within its mission.

1. Conservation through propagation of native plants, which ensures that wild populations are not damaged by direct use.
2. Seed banking and reintroduction, an ex-situ conservation program that protects germplasm reserves as a last resort against extinction in the wild and for use in reintroduction of wild populations.
3. The protection and restoration of natural areas.
4. The elimination of invasive species and replacement with noninvasive alternatives.
5. Gardening in nature's context, which seeks to promote plants that support native biodiversity.
6. Sustainable gardening, which seeks to promote environmentally friendly gardening practices.
7. Supplying critical information on conservation of the flora of the southeastern United States and on the Garden's conservation programs.
8. People-nature relations, which describes how important plant diversity and natural areas are to the physical and psychological health of all of us.
9. The history of NCBG is a history of the people and the botanical legacy of the University of North Carolina at Chapel Hill.

Please review more details about the North Carolina Botanical Garden history on our website at <https://ncbg.unc.edu/about/a-conservation-garden/>