**October 2021**

Welcome to our catalog! Summer fades and seasons change but some things remain constant—including our need to get outdoors, engage with nature, and care for our plants and gardens.

And one way to meet that need is with another constant: NYBG’s Fall–Winter catalog!

As always, you can choose from a full slate of classes in botanical art, floral design, landscape design, gardening, and more. There are new opportunities for everyone—beginner or amateur, career changer or established professional—to discover a passion, master a skill, or develop a new credential in our Certificate programs.

We are so grateful that with your support—and an incredibly resilient and responsive community of Adult Ed staff and instructors—we’ve been able to stay connected and thrive during these past challenging months. Our online courses have proven to be convenient and very popular, introducing us to new students from far outside our New York City area. We will be continuing our robust online programs, while we carefully and safely open up the Watson Education Building and Midtown Education Center for select courses, workshops, and lectures. (See the inside back cover for new on-site COVID protocols.)

We will also continue our long-standing lecture series—and starting in October we’ll be bringing guests and audiences back to the friendly atmosphere of Ross Hall. Darrel Morrison is first in a great lineup of speakers slated for the monthly Landscape Design Students and Alumni Series. And in January, visionary landscape architect Kate Orff kicks off the Garden’s 22nd Annual Winter Lecture Series, *Adapting to a New Climate*.

Keep reading for details on these exciting offerings, and much more. We know you’ll find something to satisfy your curiosity, pursue your passions, and advance your career. And we can’t wait to see you!

---

**Registration is now open.** Please visit [nybg.org/adulted](http://nybg.org/adulted) or call 718.817.8720.

Please don’t wait too long to register! Many classes fill up quickly. When classes sell out, we do try to open additional sections, so kindly add your name to the waitlist and help us determine interest. You’ll receive notice of priority registration when new classes are added. And keep an eye out for Adult Ed e-newsletters with updates on new classes, sections, and speakers.

Prices listed are Member/Non-Member. Not a Member yet? Call 718.817.8703.

---

*Need the perfect gift for that plant-loving someone? Purchase a gift card for a NYBG class today at [nybg.org/adulted](http://nybg.org/adulted) and give the gift of learning.*
About the Cover:
The artwork throughout the catalog is by Virginia-based textile artist Hillary Waters Fayle, who uses traditional techniques to meticulously embroider designs onto found plant materials. From simple lines to fully rendered florals, her artwork is a practice rooted in sustainability. Learn more about how Fayle “binds nature with the human touch” on p. 13 and visit her website: hillarywfayle.com

“What started out for me as simply a few fascinating courses has now become the foundation and springboard for a career change that is incredibly rewarding and filled with beautiful moments of humanity. And the people I’ve met at NYBG are truly caring, committed, and passionate about the power of plants—I couldn’t have asked for more!”

— Fred Ellman, Current Student
23rd Annual Landscape Design Portfolios Lecture Series

DESIGN INTENT: PLACES FOR PEOPLE

Three remarkable landscape architects working in varied climates and topographies share how their award-winning designs—both public and private—have been inspired by the people who will inhabit these newly created landscapes.

LISA SWITKIN
Cohabitation
As a senior principal at James Corner Field Operations, Lisa Switkin has led many of the firm’s most complex, bold, and transformative projects and has helped to reshape New York City’s public realm for the past 20 years. Switkin will discuss new forms of public space that foster environmental health and resilience, social cohesion and well-being, and connection to place. She will examine “cohabitation” and our evolving human relationship with nature, showcasing projects such as the High Line in Manhattan; Domino Park and River Ring in Brooklyn; the transformative master plan for Freshkills Parkland in Staten Island; and Shelby Farms Park in Memphis.

Lisa Switkin, FAAR, ASLA, is the former President of the Landscape Architecture Foundation and a 2008 Rome Prize recipient at the American Academy in Rome. She earned a Bachelor in Urban Planning from the University of Illinois and a Master of Landscape Architecture from the University of Pennsylvania. She continues to teach design studios and lecture at universities, symposia, and institutions around the world.

October 4 | 222LAN801BO

MICHAEL BOUCHER
Enduring Landscapes
From the office he founded in Freeport, Maine in 1994, Michael Boucher has led project teams in the planning and design of landscapes at a variety of scales and architectural approaches for public and private universities, schools, parks, museums, and churches. But he is also recognized for his outstanding works of residential landscape architecture, and this presentation will focus on several of these projects, including a Hamptons beach house; a hilltop residence on a steep promontory in Massachusetts; two projects in Colorado: a home that required a forest restoration and a Telluride residence on a 100-acre meadow; and a desert residence in Phoenix. In each of these challenging settings, Boucher created simple and restrained designs that exhibit a timeless quality and unite each building with its site.

After receiving an A.S. in Plant & Soil Technology and a B.S. in Environmental Design from UMass, Amherst, Michael Boucher, FASLA, received his MLA from Harvard. A lecturer, teacher, and studio critic, he is also actively engaged in the community, including the Portland Society for Architecture and Wolfe’s Neck Center for Agriculture and the Environment.

October 18 | 222LAN801CO

DAVID RUBIN
Empathy and Inclusivity in the Public Realm
Known for his design talent and advocacy for social justice within urban spaces, David Rubin will share his concern that the “third spaces” between work and home—are not truly public or reflective of the general population. His work reflects his belief that “accessibility begins with the invitation to participate.” In this presentation, Rubin will illustrate how his designs explore issues of identity and accessibility with a focus on Franklin Park and the National World War I Memorial in Washington, D.C., as well as Eskenazi Health Hospital and the Cummins Distribution Headquarters in Indianapolis.

The founding principal of DAVID RUBIN Land Collective in Philadelphia, David Rubin, PLA, FASLA, FAAR, has garnered awards for his empathy-driven designs from the American Society of Landscape Architects and the American Institute of Architects, in addition to the prestigious Garden Club of America Rome Prize in Landscape Architecture from the American Academy in Rome in 2011. A graduate of Connecticut College and Harvard’s Graduate School of Design, he is a Design Critic at Harvard.

November 1 | 222LAN801DO

Registration fee for each lecture: $15/$18. Register for the series and receive a discount: 222LAN801AO | $39/$49

SUSAN COHEN, FASLA, RLA, COORDINATOR OF THE LANDSCAPE DESIGN PROGRAM, ORGANIZED THIS SERIES.

SUPPORT GENEROUSLY PROVIDED BY THE HEIMBOLD FAMILY.
22nd Annual Winter Lecture Series

ADAPTING TO A NEW CLIMATE

This year’s speakers explore proactive and intentional approaches that address the changing climate and environmental challenges we are facing now—not just beautifying landscapes but repairing and strengthening them.

3 Thursdays, January 27, February 24, & March 31, 10:30–11:30 am | Ross Hall, NYBG

KATE ORFF

Mending the Landscape

“We’re in a moment of crisis, and it’s not enough to just make beautiful landscapes. We have to fix them, too.”

For Kate Orff, landscape architects must do more than “beautify”—they must help reset ecosystems to reconnect people to each other through ecological-social design. In her firm’s signature projects—from the $60 million Living Breakwaters barrier reef and shoreline restoration project off Staten Island, to Atlanta’s Chattahoochee RiverLands, to Resilient Boston Harbor Vision—she’s also spearheading an approach to climate resilience that says we should build with nature, not just in it.

Kate Orff, RLA, FASLA, is founding principal of SCAPE. Through her publications, activism, research, and complex, creative collaborations, she focuses on retooling the practice of landscape architecture relative to the uncertainty of climate change and creating spaces to foster social life. In 2017 Orff was the first landscape architect awarded the MacArthur “Genius Grant,” and in 2019 she received a National Design Award and was elevated to the ASLA Council of Fellows.

Claudia West

Rebuilding Abundance

Our cities and suburbs desperately need more inspiring, ecologically rich planting. Yet budgets are tight, and crews and gardeners are often unfamiliar with more diverse planting typologies. Claudia West will share the scientific models and hands-on techniques her landscape architecture firm, Phyto Studio, applies to tackle the maintenance challenge and create rich and stable planting. Come away with a new understanding of planting design and management, as well as a practical tool set for your next garden challenge.

Claudia West, ASLA, is a leading voice in the field of ecological planting design. A widely sought speaker and consultant, she has worked as designer, grower, installer, and land manager—grounding innovative work in pragmatic solutions that address the realities of our urbanizing world.

West holds a Master’s in Landscape Architecture and Regional Planning from the Technical University of Munich and is co-author of the critically acclaimed Planting in a Post-Wild World.

February 24 | 223GAR801C

JAMES BURNETT

Envisioning Landscapes: Making the Unseen Seen

OJB founding partner James Burnett shares the threads that run through the firm’s projects over the past 30 years. Noted for the belief that landscape has the power to transform cities and strengthen communities, and a commitment to addressing issues of access, equity, and health in their public spaces, OJB is the winner of the 2020 National Design Award for Landscape Architecture from the Cooper-Hewitt, Smithsonian Design Museum. Notable projects include Klyde Warren Park in Dallas, one of the first highway capping deck parks; the community-centric Levy Park in Houston; and the Sunnyslands Center and Gardens in Rancho Mirage, California, a desert botanical garden. He will share some of the unseen drivers that mark the work, including innovative sustainability features and green infrastructure solutions.

James Burnett, FASLA, has dedicated his career to revitalizing communities by creating meaningful spaces that challenge the conventional boundaries of landscape architecture. He is a distinguished Fellow of the ASLA and a 2016 recipient of the ASLA Design Medal. His new book, Envisioning Landscapes (Monacelli Press/Phaidon), explores the threads of ecology, site, and vision manifested in OJB’s garden and landscape work.

March 31 | 223GAR801D

Registration fee for each lecture: $32/$35. Register for the series and receive a discount: 223GAR801A | $85/$95

FUNDIED IN PART BY THE BARBARA CUSHING PALEY FUND.
Contemporary botanical art captures the beauty of the natural world with precision, and our extraordinary instructors share their expertise in this nurturing yet rigorous program. NYBG offered North America’s first formal botanical art certificate program, and has remained a leader in the discipline for more than three decades. Whether you are looking for personal enrichment or a professional credential, the NYBG Certificate is a prestigious indicator of mastery and accomplishment.

THE CERTIFICATE PROGRAM
The Botanical Art & Illustration requirements provide a solid foundation in scientifically accurate drawing based on observation and fine art techniques in a variety of media. Those who achieve the highest level of accomplishment receive a Certificate in Botanical Art & Illustration with Honors, an indication of superior work. For full program details and requirements for graduation, please visit nybg.org/adulted.

CLASS MATERIAL: A materials list for every class is included in the course description on our website and in your confirmation email.

HOMEWORK: Homework will be assigned and it is expected that it will be completed in order to fully benefit from the class.
CERTIFICATE REQUIREMENTS
These core classes provide a strong, well-rounded foundation that prepares the student for higher-level classes. These classes can also be taken singly.

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botanical Drawing I: Methods and Materials</td>
<td>BIL 301</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Botanical Drawing II: Developing Your Skills</td>
<td>BIL 302</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>The Basics of Visual Composition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(should be completed early)</td>
<td>BIL 421</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>Botanical Drawing III: Focus on Flowers</td>
<td>BIL 303</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Plant Morphology for Botanical Artists</td>
<td>BIL 300</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Botanical Watercolor I</td>
<td>BIL 331</td>
<td>24</td>
<td>6</td>
</tr>
<tr>
<td>Practical Aspects of Botanical Art</td>
<td>BIL 392</td>
<td>10</td>
<td>6</td>
</tr>
</tbody>
</table>

**Plus one of the following:**
- Internet Tools for Creatives, Part I: Social Media  BIL 394  5  7
- Internet Tools for Creatives, Part II: Website BIL 395  7  7
- Pen and Ink BIL 400  18  6
- Colored Pencil BIL 415  18  6

**Elective courses**

**TOTAL REQUIRED HOURS**  221*

ELECTIVES
Students seeking a Certificate may focus their electives on watercolor, colored pencil, drawing—or they may choose a natural science concentration. Elective courses build on foundation skills and allow the student to tailor their direction of study.

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butterflies in Watercolor and Colored Pencil</td>
<td>BIL 464</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Ferns in Silverpoint</td>
<td>BIL 445</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Drawing and Painting Birds</td>
<td>BIL 451</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Drawing Conifers</td>
<td>BIL 404</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Building Color and Texture with Billy Showell</td>
<td>BIL 498</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>Success with Stipple</td>
<td>BIL 458</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Ink Wash Techniques</td>
<td>BIL 407</td>
<td>15</td>
<td>7</td>
</tr>
</tbody>
</table>

*Plus a final project that meets Certificate standards
**Courses offered in Spring-Summer catalog
†Courses with a prerequisite before you can register

QUESTIONS? CONTACT PROGRAM COORDINATOR
ROBIN JESS AT BILCOORDINATOR@NYBG.ORG

BOTANICAL DRAWING FOR BEGINNERS
This intro class teaches you basic botanical illustration techniques to help you make realistic drawings of branches, stems, leaves, and flowers using graphite and colored pencil.† $229/$249

4 Wednesdays, 11/3–12/1 (no class 11/24), 10 am–1 pm
Sarah Wry | NYBG | 222BIL145A

4 Wednesdays, 1/12–2/6, 6–9 pm | Katy Lyness | Online | 223BIL145B

4 Thursdays, 2/3–2/24, 10 am–1 pm
Mary Christiansen | NYBG | 223BIL145C

4 Tuesdays, 3/1–3/22, 6–9 pm | Katy Lyness | Online | 223BIL145D

BOTANICAL WATERCOLOR FOR BEGINNERS AND BEYOND
This class is designed for both inexperienced students and those who wish to improve their skills. Lectures and demonstrations are enhanced by individual instruction. Work at your own pace on a variety of pieces.† $345/$379

5 Thursdays, 9/23–10/21, 10 am–2:30 pm
Laura Vogel | Online | 221BIL140FO

5 Sundays, 11/7–12/12 (no class 11/28), 11 am–3:30 pm
Laura Vogel | Online | 222BIL140AO

5 Mondays, 1/24–2/28 (no class 2/21), 10 am–2:30 pm
Laura Vogel | Online | 223BIL140BO

5 Mondays, 3/7–4/4, 10 am–2:30 pm | Laura Vogel | Online | 223BIL140C

PLANT MORPHOLOGY FOR BOTANICAL ARTISTS
Examine the enormous variety of forms and structural adaptations of flowering plants—the world’s dominant plant group. Through lectures, demonstrations, and laboratory studies, learn to recognize and draw the many parts and growth stages of the most common plant families.† Botanical Drawing I $495/$545 Certificate Requirement

8 Wednesdays, 2/2–3/23, 10 am–12:30 pm
Dick Rauh | Online | 223BIL300BO

THE BASICS OF VISUAL COMPOSITION
Forethought and an understanding of basic composition principles are the foundation of any balanced work of art. Through group critiques, discussions and a variety of exercises, we’ll experiment with a wide range of principles, including focal point, the rule of thirds, value, and negative space that will help your artwork achieve maximum visual impact. This class is best taken early in your Certificate program.† Botanical Drawing II | $449/$495 Certificate Requirement

4 Saturdays, 2/5–3/5 (no class 2/19), 10 am–3 pm
Betsy Rogers-Knox | Online | 223BIL421AO

The Tri-State Botanical Artists of NYBG
TSBA is a lively group of more than 90 artists who meet to engage in critiques, monthly art challenges, a sketchbook exchange, and topical discussions. We invite all current Certificate students and alumni to join us! See p. 43 for more information.

Illustration: Three Peppers, ©Rose Marie James, NYBG Instructor
**Weekend watercolor Online Workshops**

Capture the beautiful colors and unique details of many different botanical subjects. No previous drawing or painting experience is necessary.

**CHINESE LANTERNS**
Sunday, 10/3, 11 am–4:30 pm
Adele Rossetti | Online | 222BIL257O

**ORNAMENTAL PUMPKINS**
Saturday, 10/30, 10 am–3:30 pm
Sarah Wry | Online | 222BIL229O

**FALL LEAVES**
Sunday, 10/31, 11 am–4:30 pm
Laura Vogel | Online | 222BIL203O

**IRISES**
Saturday, 1/22, 11 am–4:30 pm
Laura Vogel | Online | 223BIL237O

**NEW/ CYCLAMENS**
Saturday, 1/29, 11 am–4:30 pm
Adele Rossetti | Online | 223BIL264O

**PINE CONES**
Saturday, 2/5, 11 am–4:30 pm
Laura Vogel | Online | 223BIL274O

**ORCHID FLOWERS**
Sunday, 3/6, 11 am–4:30 pm
Laura Vogel | Online | 223BIL225O

Registration fee for each section: $95/$105

---

**Focus on dry brush!**

**RED BARLETT PEARS IN DRY BRUSH WATERCOLOR**
Sunday, 9/19, 11 am–4:30 pm
Carrie Di Costanzo | Online | 221BIL246O

**GALA APPLES IN DRY BRUSH WATERCOLOR**
Saturday, 11/20, 11 am–4:30 pm
Carrie Di Costanzo | Online | 222BIL263O

**POMEGRANATES IN DRY BRUSH WATERCOLOR**
Saturday, 1/8, 11 am–4:30 pm
Carrie Di Costanzo | Online | 223BIL258O

**ACORN SQUASH IN DRY BRUSH WATERCOLOR**
Saturday, 2/26, 11 am–4:30 pm
Carrie Di Costanzo | Online | 223BIL242O

**KIWIS IN DRY BRUSH WATERCOLOR**
Saturday, 3/12, 11 am–4:30 pm
Carrie Di Costanzo | Online | 223BIL262O

Registration fee for each section: $125/$135

---

**BOTANICAL DRAWING I: METHODS AND MATERIALS**
Accurate observation translates into sensitive, realistic drawings and is an essential skill for botanical artists. Using basic shapes, fruit, and leaves, learn contour drawing with an emphasis on proportion, and explore techniques such as foreshortening, perspective, and line weight. | $435/$479 Certificate Requirement

6 Tuesdays, 10/5–11/9, 10 am–1 pm
Rose Marie James | NYBG | 222BIL301A

6 Wednesdays, 1/12–2/16, 11 am–2 pm
Scott Rawlins | Online | 223BIL301BO

6 Thursdays, 1/13–2/17, 6–9 pm
Linda Nemergut | Online | 223BIL301CO

6 Thursdays, 2/10–3/17, 6–9 pm
Laura Vogel | Online | 223BIL301DO

6 Wednesdays, 3/2–4/6, 11 am–2 pm
Katy Lyness | Online | 223BIL301EO

---

**BOTANICAL DRAWING II: DEVELOPING YOUR SKILLS**
Learn to tone fruit, vegetables, leaves, and branches. Focus on concepts of light source, value, and shading to create form. Translate color into black and white, and create the illusion of depth and space in your work.road Botanical Drawing I | $435/$479 Certificate Requirement

6 Mondays, 9/27–11/8 (no class 10/11), 11 am–2 pm
Laura Vogel | Online | 221BIL302DO

6 Tuesdays, 11/9–12/14, 6–9 pm
Linda Nemergut | Online | 223BIL302AO

6 Tuesdays, 1/11–2/15, 10 am–1 pm
Rose Marie James | NYBG | 223BIL302B

6 Thursdays, 3/3–4/7, 6–9 pm
Linda Nemergut | Online | 223BIL302CO

6 Wednesdays, 3/16–4/20, 11 am–2 pm
Scott Rawlins | Online | 223BIL302DO

---

**BOTANICAL DRAWING III: FOCUS ON FLOWERS**
Apply your understanding of contours, perspective, and tone to accurately draw three distinct, fully-toned flowering plants. Explore compositional possibilities, textures, and details.road Botanical Drawing II | $435/$479 Certificate Requirement

6 Thursdays, 9/23–11/4 (no class 10/14), 5:30–8:30 pm
Rose Marie James | Online | 221BIL303CO

6 Tuesdays, 1/11–2/15, 6–9 pm
Linda Nemergut | Online | 223BIL303AO

6 Thursdays, 3/17–4/21, 10 am–1 pm
Rose Marie James | Online | 223BIL303BO

---

**COLORED PENCIL**
Colored pencil can be applied to look like either drawing or painting, making it a versatile medium for botanical art. Learn a variety of techniques including burnishing, tonal construction, and layering colors for different hues and densities.road Botanical Drawing II | $435/$479 Certificate Requirement

6 Thursdays, 2/3–3/10, 6–9 pm
Jeanne Reiner | Online | 223BIL415O

---

**PEN AND INK**
Pen and ink, so versatile and useful, can be used to create high-quality, easily reproducible drawings. Learn to produce different strokes and create tone by using stipple, line, and crosshatch techniques.road Botanical Drawing II | $435/$479 Certificate Requirement

6 Mondays, 10/18–11/29 (no class 11/1), 11 am–2 pm
Carol Ann Morley | Online | 222BIL400AO

6 Tuesdays, 1/18–2/22, 11 am–2 pm
Carol Ann Morley | Online | 223BIL400BO

---

**BOTANICAL WATERCOLOR I**
This comprehensive class covers the basics. Learn how to use your brushes to make smooth, underlying washes, and create fine detail. Color theory teaches you how paints interact, and how to select the right colors for your subject. Paper selection, transferring preliminary drawings, and more round out this strong foundation.road Botanical Drawing II | $569/$625 Certificate Requirement

8 Wednesdays, 10/20–12/15 (no class 11/24), 10:30am–1:30pm
Laura Vogel | Online | 222BIL331AO

8 Mondays, 2/7–4/4, 5:30–8:30 pm
Rose Marie James | Online | 223BIL331BO

---

**PRACTICAL ASPECTS OF BOTANICAL ART**
Cover the basics: dealing with galleries and artists’ reps, including pricing, contracts, and sales agreements; how/when to sell certain rights; how to market your work through promotional printing and making products; as well as licensing. How to prepare for entering an exhibition or developing your own one-person show will round out the concepts.road Watercolor I | $245/$269 Certificate Requirement

4 Fridays, 1/14–2/4, 10:30 am–1 pm
Carol Woodin | Online | 223BIL392O
IN-PROGRESS PORTFOLIO CRITIQUE
As a developing artist, you need personalized, supportive evaluation to improve. This is your chance to bring your finished art and work-in-progress for respectful, careful feedback via group discussion and teacher-led demos. Are your details complete? Are your tonal values correct? Works in colored pencil, graphite, or watercolor are welcome. This class is highly recommended for Portfolio candidates. $119/$129
Wednesday, 1/31, 10 am–3:30 pm
Robin Jess | Online | 223BIL208O

BOTANICAL WATERCOLOR II
Practice techniques learned in Botanical Watercolor I using live subjects such as leaves, stems, and fruit. Emphasis is on realistic portrayal of botanical subjects and traditional methods of dry brush watercolor painting, with attention to detail and color accuracy. We recommend that students take this class immediately following Botanical Watercolor I. Botanical Watercolor I $435/$479 Certificate Elective
6 Mondays, 4/18–5/23, 5:30–8:30 pm
Rose Marie James | Online | 224BIL332O

NEW! FERNS IN SILVERPOINT
Capture the delicate and feathery texture of ferns drawn in silverpoint. Using a silver wire held in a stylus, master an organic approach to drawing this plant material. Learn to prepare the substrate, develop a skillful handling of the drawing material, and add touches of color to the soft patina of the finished drawing. Bring your own fern to work from during class. Silverpoint stylus included. Botanical Watercolor II $359/$395 Certificate Elective
4 Fridays, 9/17–10/8, 10 am–1:30 pm
Linda Nemergut | NYBG | 224BIL445

NEW! BUTTERFLIES IN WATERCOLOR AND COLORED PENCIL
Butterflies play a crucial part in plant pollination. Learn how to use watercolor and colored pencil techniques to create brilliantly colored patterns seen on the wings of these vital insects. To ensure accuracy and detail, you’ll use real specimens and photos of your subjects to study their specific anatomy. Botanical Watercolor I $359/$395 Certificate Elective
4 Wednesdays, 2/9–3/2, 11 am–1:30 pm
Jeanne Reiner | Online | 223BIL464O

NEW! SUCCESS WITH STIPPLE
Black-and-white stipple technique can produce smooth graded tones, add texture and value, and suggest color. Learn the skills and procedures to master the method of using sized pens and ink or fine point markers such as Copic multiliners or Micron pens to create rich drawings. (Crow Quill pen will be presented but not featured.) Through demonstrations, examples, and personal attention, you’ll learn how and when to use a brush with ink to enhance the drawing, make corrections, and highlight with white gouache. Prerequisite: Botanical Drawing I $359/$395 Certificate Elective
3 Thursdays, 1/13–1/27, 11 am–2:30 pm
Robin Jess | Online | 223BIL458O

NEW! DRAWING AND PAINTING BIRDS
Learn how to accurately draw feathers, wings, and birds with popular artist Mindy Lighthipe. Each week, you’ll be introduced to a new part of a bird’s anatomy—giving you an in-depth understanding of how to capture these beautiful creatures on paper. Add depth, texture, and color by using graphite, colored pencil, and watercolor. Photo references and resources for purchasing ethically sourced specimens will be provided. Prerequisite: Botanical Drawing I $445/$489 Certificate Elective
4 Fridays, 3/4–3/25, 11 am–2 pm
Mindy Lighthipe | Online | 223BIL451O

INK WASH TECHNIQUES
If you’re looking to transition from drawing to watercolor painting or fine tune your watercolor techniques, this class is for you. You will practice basic techniques such as flat washes, glazing, graded washes, and dry brush for fine details. Dilutions of India ink and earth tone inks will be used to depict botanical and natural science subjects. Please have sample drawings on hand for the first class. Prerequisite: Botanical Drawing I $359/$395 Certificate Elective
3 Tuesdays, 3/8–3/29 (no class 3/22), 11 am–4:30 pm
Laura Vogel | Online | 223BIL407O

DRAWING CONIFERS
Learn to identify and draw the key characteristics associated with coniferous plants. From needles and bark to seeds and cones, come away with a thorough grounding in the best ways to illustrate the morphological attributes of this beautiful group of plants. Botanical Drawing I $359/$395 Certificate Elective
5 Thursdays, 3/17–4/14, 10 am–12 pm
Dick Rauh | Online | 223BIL404O

INTERNET TOOLS FOR CREATIVES PART I: SOCIAL MEDIA
Learn to develop and implement an Instagram strategy to showcase your work and attract and engage followers. A smartphone with is required. $115/$129 Certificate Requirement
2 Saturdays, 3/19 & 3/26, 11 am–1:30 pm
TBA | Online | 223BIL394O

INTERNET TOOLS FOR CREATIVES PART II: WEBSITE
A professional online presence is key to growing your business. In this hands-on class, you’ll build a simple website (no coding required!) to showcase your portfolio using the free Wix.com platform or a Squarespace template and free online photo-editing tools. Internet proficiency necessary. $155/$169 Certificate Requirement
3 Fridays, 2/18–3/4, 11 am–1:20 pm
Dylan Marcheschi | NYBG | 223BIL395

Building Color and Texture with Billy Showell
Internationally renowned botanical artist Billy Showell joins us from England for a special four-day online workshop. A master of the wet-on-wet watercolor technique—the process of applying fresh paint onto a wet surface—Showell will guide you through her methods of washing, lifting, and re-washing to create velvety smooth leaves and petals. Learn how she magically firms up the subject’s intricate details and edges using a dry brush technique. Through Showell’s demonstrations and personalized instruction, you’ll hone your skills as you build an elegant composition and bring plant subjects to life on paper. Botanical Drawing II / $445/$489 Certificate Elective

2 Thursdays & 2 Fridays, 11/4–11/12, 11 am–3 pm
Billy Showell | Online | 222BIL498O
Illustration: Pink Summer, ©Billy Showell

IN-COURSE ASSIGNMENTS
Prerequisite: Botanical Watercolor I

Botanical Art & Illustration
New! Botanical Watercolor II
New! Internet Tools for Creatives Part I: Social Media
New! Building Color and Texture with Billy Showell
New! Botanical Art & Illustration

$155/$169 Certificate Requirement

$115/$129 Certificate Requirement

$155/$169 Certificate Requirement
A botany class gives you a deeper understanding of how plants connect us to the natural world, and can be your gateway to herbal healing, cross-cultural understanding, or appreciation of nature’s seasonal beauty.

THE CERTIFICATE PROGRAM

The NYBG Botany Certificate courses in subjects such as native flora, ethnobotany, ecology, and botanical nomenclature reflect the Garden’s strengths in botanical science research, as well as its world-famous and unequalled resources—the William and Lynda Steere Herbarium, housing 7.8 million dried plant specimens, and the LuEsther T. Mertz Library, with its 550,000 volumes, 12,000 serial titles, and 11 million archival documents.

Over the course of the program, students will come to know how plants function, grow, develop, and reproduce—and learn to identify a wide array of plants by stems, leaves, flowers, and fruit.
### Certificate Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours*</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Structure</td>
<td>BOT 315</td>
<td>24</td>
<td>11</td>
</tr>
<tr>
<td>Plant Physiology</td>
<td>BOT 316</td>
<td>P</td>
<td>21</td>
</tr>
<tr>
<td>Plant Diversity</td>
<td>BOT 317</td>
<td>P</td>
<td>24</td>
</tr>
<tr>
<td>Dendrology: Woody Plant Identification</td>
<td>BOT 375</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Herbaceous Plant Identification**</td>
<td>BOT 376</td>
<td>15</td>
<td>—</td>
</tr>
</tbody>
</table>

One of the four Native Flora courses:

- Native Flora in Autumn | BOT 331 | 11
- Native Flora in Winter | BOT 332 | 11
- Native Flora in Spring** | BOT 333 | —
- Native Flora in Summer** | BOT 334 | —

**Elective Credits (See current electives below)** 58

**TOTAL REQUIRED HOURS** 169

### Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours*</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature’s Pharmacy</td>
<td>BOT 346</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Botanical Latin</td>
<td>GAR 360</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Forest Ecology</td>
<td>BOT 326</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Basic Plant ID</td>
<td>BOT 308</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Paleobotany: The Origin of Plants</td>
<td>BOT 434</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Autumn Mushrooms</td>
<td>BOT 368</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Psychedelic Mushrooms</td>
<td>BOT 302</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>The Science of Tree Communication</td>
<td>BOT 385</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Pressing Plants For Art &amp; Science</td>
<td>BOT 338</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Winter Mushrooms</td>
<td>BOT 394</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Morphology of Flowering Plants</td>
<td>BOT 431</td>
<td>P</td>
<td>16</td>
</tr>
<tr>
<td>Nature’s Recording Device</td>
<td>BOT 397</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

*Course hours do not include exam hours

**Courses offered in the Spring–Summer Catalog

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective Credits (See current electives below)</td>
<td></td>
<td>58</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED HOURS** 169

### Questions?

**Contact Program Coordinator**

JAMIE BOYER, PH.D., AT JBOYER@NYBG.ORG

---

**Basic Plant ID**

This is the class for plant-lovers eager to up their game! Learn the terminology and basic botanical nomenclature that will help you recognize and describe key differences in common plants. | $145/$159

- 3 Tuesdays, 10/5–10/19, 5:30–7:30 pm
  - Jennifer Cappello-Ruggiero | Online | 222BOT308AO

- 3 Tuesdays, 11/2–11/16, 5:30–7:30 pm
  - Clara Holmes | Online | 222BOT308BO

**Pressing Plants for Art & Science**

Learn techniques and skills for collecting and preserving museum-quality plant specimens. Build your own herbarium, a permanent record and study aid for Botany and Horticulture courses—or for artistic appreciation. | $365/$395

- 4 Fridays, 9/10–10/8 (no class 9/24), 2–5 pm
  - Daniel Atha | NYBG | 221BOT338A

- 4 Fridays, 1/21–2/11, 2–5 pm
  - Daniel Atha | NYBG | 223BOT338B

**Autumn Mushrooms**

In NYC, fall is the best time to hunt for edible fungi. Paul Sadowski, 25-year veteran of the NY Mycological Society, will lead a mushroom hunt, and show you how to identify many species and their look-alikes, where to find them, and how to cook or preserve them. | $145/$159

- 2 Tuesdays, 9/21 & 9/28, 10 am–1 pm
  - Paul Sadowski | NYBG & Off-site | 221BOT368A

- 2 Wednesdays, 10/13 & 10/20, 10 am–1 pm
  - Paul Sadowski | Manhattan & Off-site | 222BOT368B

**Botanical Latin**

Botanical Latin is essential for anyone with a serious interest in identifying plants. But, contrary to popular belief, mastering Latin plant names need not be intimidating or boring. Review the rules of taxonomy, Latin grammar, and pronunciation, and learn the history of the binomial system in use today. | $295/$325

- 6 Saturdays, 10/23–12/27, 10:30 am–12:30 pm
  - Jennifer Bakshi | Online | 222GAR360AO

- 6 Thursdays, 1/6–2/10, 10:30 am–12:30 pm
  - Jennifer Bakshi | Online | 223GAR360BO

- 6 Mondays, 3/7–4/11, 6:15 pm–8:15 pm
  - Jennifer Bakshi | Online | 223GAR360CO

**Psychedelic Mushrooms**

Food journalist and former president of the New York Mycological Society, Eugenia Bone, author of *Mycophilia*, will discuss the biology of these potent fungi, their cultural history, and contemporary use and regulation in the U.S. | $59/$65

- Tuesday, 10/26, 6–8 pm
  - Eugenia Bone | Online | 222BOT302AO

- Wednesday, 12/1, 10:30–12:30 pm
  - Eugenia Bone | Online | 222BOT302BO

- Tuesday, 2/1, 6–8 pm
  - Eugenia Bone | Online | 223BOT302CO
**FOREST ECOLOGY**
Explore the basic principles that influence the ecological relationships of the forest ecosystem using the Garden grounds as a site for observation and field study. Blended class; online and on-site. | $295/$325  *Certificate Elective*

2 Saturdays, 10/30 & 11/6, 10 am–2 pm & 2 Wednesdays, 11/3 & 11/10, 7–9 pm
Michael Gaige | NYBG & Online | 222BOT326BL

**NATURE’S PHARMACY**
Discover the many herbs and spices prized for centuries to heal, to revitalize the immune system, and to treat and prevent asthma, insomnia, flu, and more. | $115/$125  *Certificate Elective*

2 Saturdays, 11/6 & 11/13, 10 am–12 pm
Andrea Cande | Online | 222BOT346AO
2 Saturdays, 2/5 & 2/12, 10 am–12 pm
Andrea Cande | Online | 223BOT346BO

**FIVE PLANTS THAT CHANGED THE WORLD**
Embark on a historical odyssey that uncovers the botany behind how yams, heterotrophic eukaryotic fungi, potatoes, and sugar cane played pivotal roles in human history—from helping to save the world from dire illness to sending humans into space to making modern contraception possible. | $75/$85

2 Wednesdays, 11/10 & 11/17, 10 am–12 pm
David Saidoff | Online | 222BOT207AO
2 Tuesdays, 2/16 & 2/23, 10 am–12 pm
David Saidoff | Online | 223BOT207BO

**WHAT’S THIS TREE ON MY BLOCK**
Learn to distinguish Manhattan’s five most common genera and pinpoint particular species in this fun intro to tree identification. | $59/$65

Friday, 11/12, 2–4 pm
James Kaechle | Online | 222BOT223AO
Saturday, 2/26, 2–4 pm
James Kaechle | Online | 223BOT223BO

**THE SCIENCE OF TREE COMMUNICATION**
Discover how trees communicate via chemical signals in the air (to warn of insect attacks) and transfer nutrients to one another through complex underground fungal networks (sometimes to assist sick trees). | $125/$139  *Certificate Elective*

3 Tuesdays, 12/7–12/21, 6–8 pm
Steve Kutos | Online | 222BOT385AO
3 Sundays, 1/23–2/6, 10 am–12 pm
Giselle Herrera | Online | 223BOT385BO
3 Thursdays, 3/3–3/17, 6–8 pm
Steve Kutos | Online | 223BOT385CO

---

**THE PLANT WHISPERERS—**
The Garden’s world-renowned scientists use cutting-edge tools to discover and preserve Earth’s botanical diversity. Share their insights and field experiences in far-flung locales, as they unlock the mysteries of exotic and local flora in these engaging sessions.

**Frankincense and Myrrh**
For centuries, traditional peoples across the Middle East, the Mediterranean, and the tropics have used resins from plants from the Burseraceae family—for illumination, rituals, fragrance, medicine, and even stimulating camel milk production. Douglas Daly, NYBG’s Curator of Amazonian Botany, presents the colorful history of these remarkable plants. Examine a variety of products from far-off lands, discover how to really “burn” incense, and take home seeds to grow for the holidays.

**Wednesday, 12/8, 10 am–1 pm**
Douglas Daly, Ph.D. | NYBG | 222BOT345

**THE HIDDEN WORLD OF LICHENS**
Among Earth’s most amazing and oldest living organisms, lichens grow on bark, rock, and barren soil. They thrive in rain forests, deserts, the arctic—even environments simulating Mars! Lichens are sensitive environmental indicators, yet scientists are only just beginning to understand them. Join noted NYBG lichenologist James Lendemer for a captivating session that includes a microscope lab.

**Tuesday, 1/25, 6–9 pm**
James Lendemer, Ph.D. | Manhattan | 223BOT313A

**Wednesday, 2/9, 10 am–1 pm**
James Lendemer, Ph.D. | NYBG | 223BOT313B

Each section: $75/$85  *Certificate Elective*

---

**WINTER MUSHROOMS**
While plants enjoy their winter’s sleep, many fungi are active in forests and parks. We’ll explore table favorites like Enoke and Oysters in class and in their habitats. | $145/$159  *Certificate Elective*

2 Fridays, 1/28 & 2/4, 10 am–1 pm
Paul Sadowski | NYBG & Off-Site | 223BOT394

**MORPHOLOGY OF FLOWERING PLANTS**
Examine the form and structure of angiosperms (flowering plants) with a focus on their flowers, fruits, and vegetative plant parts. We will also study how and why these structures developed.

**Prerequisite: Plant Structure** | $395/$435  *Certificate Elective*

6 Mondays, 2/28–4/12, 12–3:10 pm
Regina Alvarez | NYBG | 223BOT431S

**NATURE’S RECORDING DEVICE: WHAT TREE RINGS REVEAL ABOUT CLIMATE CHANGE**
This interactive workshop examines tree rings for precious information about climate, precipitation levels, and forest composition changes over time, which may help us predict the pace and scale of change to come. Hike into NYBG’s old-growth Thain Family Forest, to identify old trees and learn what they can teach us about our region’s ever-changing biodiversity.

**2 Saturdays, 3/5 & 3/12, 11 am**
Neil Pederson | NYBG & Online | 223BOT397BL

**MEDICINAL MUSHROOMS**
Emerging research suggests that mushrooms may be beneficial for brain and nerve health. Discover the properties of different species such as Maitake, Reishi, and Lion’s Mane and learn where medicinal mushrooms occur locally. We’ll also explore how fungi have been used to clean toxins from the environment by filtering water and removing heavy metals from soil. | $45/$49

**Tuesday, 3/8, 6:30–8 pm**
John Michelotti | Online | 223WEL181O

**PALEOBOTANY: THE ORIGIN OF PLANTS**
Paleobotany, the study of plant evolution through fossil evidence, gives us insights into Earth’s flora, past and present. Gain a historical perspective on global diversity and climate change, and the origin and development of present-day trees and flowering plants.

**Prerequisite: Basic Plant ID or Plant Structure** | $295/$325  *Certificate Elective*

6 Thursdays, 3/31–5/5, 5:30–7:30 pm
Jamie Boyer, Ph.D. | Online | 223BOT434O
CERTIFICATE CLASSES
Open to Non-Certificate students

DENDROLOGY: WOODY PLANT IDENTIFICATION
Learn to identify the native and naturalized trees, shrubs, and woody vines of the Northeast by their vegetative characteristics using their scientific and common names. You’ll also hone your ability to use taxonomic keys and field guides. Prerequisite: Basic Plant ID or Plant Structure | $379/$415 Certificate Requirement

4 Wednesdays, 9/22–10/13, 6–7:30 pm & 3 Sundays, 9/26–10/17 (no class 10/10), 10:30 am–1 pm
James Kaechele | NYBG & Online | 221BOT375BBL

NATIVE FLORA IN AUTUMN
In autumn our native Northeast flora can be spectacular, but difficult to identify. With a 10X power hand lens and a plant key, you’ll learn to identify these wildflowers, shrubs, and trees on the Garden grounds. Prerequisite: Basic Plant ID or Plant Structure | $295/$325 Certificate Requirement

5 Thursdays, 9/23–10/21 (rain date: 10/28) 9 am †
Nancy Slowik | NYBG & Online | 221BOT331BBL

PLANT STRUCTURE
Get a solid grounding in the basic plant body—from the cell to the roots, stems, leaves, flowers, and fruit. We’ll use dissecting and compound light microscopes to observe plant anatomy, then introduce the base-level chemistry required to understand the world of plants. Prerequisite: Plant Structure | $559/$615 Certificate Requirement

5 Mondays, 10/4–11/8, & Tuesday, 10/12, 5–8 pm and 2 Saturdays, 10/23 & 11/13, 2–5 pm
Jamie Boyer, Ph.D. | NYBG & Online | 222BOT315ABL

8 Mondays, 1/24–3/21 (no class 2/21), 6–9 pm
Jasmin Alim | Online | 223BOT315B

8 Tuesdays, 2/22–4/12, 6–9 pm
Steve Kutos | Online | 223BOT315C

PLANT DIVERSITY
Explore the myriad structures and diverse life cycles of plants, algae, fungi, and bacteria. Discover how and why scientists have divided and classified these organisms. Prerequisite: Plant Structure | $559/$615 Certificate Requirement

8 Fridays, 10/8–12/3 (no class 11/26), 10 am–1 pm
Regina Alvarez | NYBG | 222BOT317O

NATIVE FLORA IN WINTER
In class and in forays around the Garden, you’ll learn to recognize the winter characteristics of native and common woody plants by bud types, leaf scars, fruit remnants, and other distinguishing marks. Prerequisite: Basic Plant ID or Plant Structure | $295/$325 Certificate Requirement

4 Fridays, 1/14–2/4, 10 am–1 pm
Nancy Slowik | NYBG | 223BOT332

PLANT PHYSIOLOGY
We will cover the role of plant hormones in growth and development, as well as plant movement, water transport through the plant body, and plant metabolism, including photosynthesis and respiration (anaerobic and aerobic). Prerequisite: Plant Structure | $559/$615 Certificate Requirement

8 Mondays, 1/24–3/21 (no class 2/21), 5:30–8:30 pm
Regina Alvarez | NYBG | 223BOT316P

NEW! THE MANY USES OF MYCELIUM
Scientists have engineered so many new products from mycelium that Scientific American heralds the dawn of the “Mycelium Revolution” and Harper’s Bazaar dubs fungi “The Future of Fashion.” Explore how scientists have harnessed mycelium’s ability to create complex structures that are now being used as eco-friendly alternatives to plastic, leather, meat, and Styrofoam. Mushroom bacon or sneakers, anyone? | $45/$49

Tuesday, 2/22, 6–7:30 pm | John Michelotti | Online | 223BOT349O

† The start time for all sections is as listed; end times vary. See website for the full schedule.

Exam on last class date.
Crafts & Culinary

Let Mother Nature be your muse—use botanicals to create prints, fabrics, seasonal decor, and more!

NEW! HANDCRAFTED BROOMS
Explore the ancient technique of broom-making. Fiber artist and educator Poliana Danila will guide you through traditional techniques of crafting a 16-inch broom using natural or black-dyed sorghum that can be used as a sweeper and/or displayed as a beautiful art piece on your wall, mantel, or altar. All materials provided. | $115/$125
Saturday, 9/18, 10 am–1 pm
Poliana Danila | NYBG | 221CRF279

NEW! WILLOW BERRY BASKETS
Handwoven willow baskets bring a touch of rustic beauty and function to your home. Jes Clark of Willow Vale Farm will teach you how to weave a round-shaped berry basket from the base up. Learn the traditional methods of stake and strand willow weaving and techniques such as pairing, waling, and French randing. You’ll use a simple trac border and pegged stick handle to complete the look. Choose from a beautiful assortment of natural willows grown and prepared by Jes on their Hudson Valley farm. Strong hands are a must for this class! All materials provided. | $175/$189
Thursday, 9/30, 9 am–5 pm
Jesica Clark | NYBG | 221CRF239

NEW! BEESWAX CANDLES
Practice the meditative art of candle making with Alysia Mazzella who Vogue Magazine suggests kicked off the recent reboot of this ancient craft. Discover the wonders of beeswax, with its lovely honey aroma and ability to burn without smoking or dripping, unlike paraffin. She will walk you through traditional hand dipping techniques to make a pair of tapers. Students will source materials per instructor guidelines. | $45/$49
Saturday, 11/13, 2 pm–4 pm
Alysia Mazzella | Online | 222CRF228O

CLOSE-UP & MACRO WORKSHOP
Learn to create intimate and detailed portraits of flowers using various lenses, proper depth of field, filters, and the best framing techniques. Equipment, including zoom telephotos, close-up diopter filters, extension tubes, teleconverters, dedicated macro lenses, and wide angle close-ups will be demonstrated in the classroom, followed by practice using your own equipment. Images will be projected on screen for discussion and review. | $95/$105
Friday, 10/15, 10 am–4 pm
Jeff Falk | NYBG | 222GWP928

WATERCOLOR BASICS
You love her New Yorker covers! Award-winning artist and seasoned educator Jenny Kroik is known for the loosely rendered, evocative scenes she describes as “very responsive—like a journal.” Using botanical subjects you have on hand, learn the basics of painting with watercolor or take your work to the next level in a casual environment. Have fun while experimenting with color and creativity! All materials provided. | $75/$85
Thursday, 10/14, 6–8 pm
Jenny Kroik | Manhattan | 222CRF277A
Thursday, 1/20, 6–8 pm
Jenny Kroik | Manhattan | 223CRF277B
Saturday, 3/12, 11 am–1 pm
Jenny Kroik | Manhattan | 223CRF277C

WOODLAND WREATH
Take inspiration from the woods as you create a rich, textural wreath for your home. Using a grapevine wreath as a base, you’ll add a variety of preserved botanical materials, including seed pods, mosses, flowers, fruits, and pine cones. Students will source materials per instructor guidelines. | $85/$95
Saturday, 11/6, 11 am–1 pm
Madeline Yanni | Online | 222CRF173O

INSTRUCTOR BIOS CAN BE FOUND ONLINE AT NYBG.ORG/ADULTED
WILLLOW GROWING FOR FUN AND FUNCTION
Growing willows will introduce winter color, texture, and functionality to your garden or farm—while also supporting biodiversity. Learn how to grow, care, and harvest shrub willows with Jes Clark of Willow Vale Farm. In this lecture-based class, you’ll learn how to plan your space, where to get plantable cuttings, and what to do with them. Explore the many uses of willow as well its maintenance needs. | $59/$65
2 Wednesdays, 12/8 & 12/15, 6–7:30 pm
Jesica Clark | Online | 222CRF265O

ALL ABOUT TERRARIUMS AND VIVARIUMS
Discover how to design your own terrarium or vivarium with Christopher Satch, plant scientist and award-winning exhibitor at the Philadelphia Flower Show. Through lecture and demonstration, he’ll discuss how to set up a simple, easy care terrarium, how to create an automated climate-controlled vivarium, and everything in between. $45/$49
Sunday, 2/13, 10 am–12 pm
Christopher Satch | Online | 223CRF275O

STACKED IMAGE WORKSHOP
Stacked image photography allows you to create images of extraordinary depth, sharpness, and detail. In this hands-on workshop, you will use your own digital camera (manual focus required) to take a series of photos of the same subject with different focal points. You will then combine these photos using your own laptop (with a free trial of a special software) to produce one final breathtaking image. | $95/$105
Thursday, 2/3, 10 am–4 pm
Jeff Falk | NYBG | 222GPWP213

TURNING FLOWERS INTO ART
Bring the beauty of dried flowers into your home. In the first session, discover which flowers last the longest, how to gather, press, and preserve them, and when to use which materials, such as glycerin and silica gel. Then, using the flowers you’ve dried, paint them to print with, hammer them onto watercolor paper for an embossed look, or press them directly on paper. Check website for materials list. | $85/$95
2 Saturdays, 2/19 & 2/26, 11 am–1 pm
Madeline Yanni | Online | 223CRF237O

NEW! MACRAMÉ WORKSHOP: PLANT HANGERS
With origins in ancient Chinese knot work and 13th-century weavers on the Arabian peninsula, macramé is a traditional craft that has taken many forms. Learn the meditative and creative art of knotting as you weave together a beautiful plant hanger. Fiber artist and educator Poliana Danila will guide you through the process of square, spiral, half square, gathering, and barrel knots while sharing some history of this versatile craft. All materials provided. | $115/$125
Sunday, 2/27, 10 am–1 pm
Poliana Danila | NYBG | 223CRF201

INDIGO DYE WORKSHOP
Create a vibrant pair of tea towels by dying them several different ways to create patterns using 8th century Japanese shibori techniques. Textile artist Molly George will also show you just how easy it is to create a non-toxic vat with only three natural ingredients so you can continue the fun at home! All materials provided. | $115/$125
Saturday, 3/19, 1–4 pm
Molly George | NYBG | 223CRF164

The Art of Leaf Embroidery with Hillary Waters Fayle
The stunning embroidered leaf designs that grace this catalog are the work of Virginia-based textile artist Hillary Waters Fayle. Get a sneak peek into Hillary’s artistic process, including how she chooses and prepares her plant material, which sewing techniques are most effective, and the variety of ways her designs evolve. She’ll also discuss why she grounds her practice in sustainability by relying mainly on found materials—from passed down thread to camellia leaves in her yard. | $15/$18
Thursday, 10/21, 6–7 pm | Online | 222CRF290O

Holiday Crafts
HOLIDAY WREATHS
Learn to fashion different types and sizes of wreathes—from those that hang on the wall to those surrounding a candle to bring a soft glow to your holiday table. Calamia Crafts owner Madeline Yanni will demonstrate how to make an evergreen wreath from scratch, as well as how to create one using preserved greens such as cedar and juniper, dried seasonal botanicals, and mushroom birds. Demo only. | $25/$29
Wednesday, 12/1, 6–7 pm
Madeline Yanni | Online | 222CRF194AO
Tuesday, 12/14, 6–7 pm
Madeline Yanni | Online | 222CRF194BO

WINTER TABLETOP TREE
Create a tabletop tree using fresh evergreens and boxwoods. Artist Diana Conklin will show you how to achieve the desired shape, width, and height of the tree. Then, with an assortment of natural botanicals, she’ll guide you through decorating process—using herbs, dried flowers, cone, pods, and more to add personal flair to this special centerpiece. Students will source their own materials per instructor guidelines. | $59/$65
Saturday, 12/11, 1:30–4 pm
Diana Conklin | Online | 222CRF199O

MAGNOLIA LEAF WREATH
Southern charm and hospitality come front and center with a glossy, richly decorated wreath of magnolia leaves on a door, mantel, or accent wall. Weave leaves into a wreath form, then complement shape and color with seasonal fruit, pine cones, holly, and other greenery. All materials provided. | $189/$205
Wednesday, 12/15, 10 am–2:30 pm
Tom Cawley | NYBG | 222FDN355

Illustration: Holly, ©Marcy Kenyon, 2015 Graduate

REGISTER ONLINE AT NYBG.ORG/ADULTED OR CALL 718.817.8720
Experiment with fermentation, food preservation, and mixology!

FALL EDIBLE PLANTS
Take a guided ramble with wild foods author and forager Marie Viljoen and learn to how to identify and use the edible plants that are indigenous to the Northeast. Visit NYBG’s Native Plant Garden and the Thain Family Forest and discover what these plants look like in fall, a skill that is key to successful foraging in each season. Outside only; rain or shine. | $45/$49
Friday, 10/8, 11 am–1 pm | Marie Viljoen | NYBG | 222CKG229A
Sunday, 10/17, 11 am–1 pm | Marie Viljoen | NYBG | 222CKG229B

FERMENTING VEGETABLES
Fermentation is one of the oldest food processing methods still used today. Discover the basic science behind how to ferment vegetables—from sauerkraut and beets to carrots and corn. Fermentation expert Cheryl Paswater will demonstrate best practices for fermenting vegetables while we discuss the many health benefits fermented foods can provide. | $45/$49
Wednesday, 10/13, 6:30–8 pm | Cheryl Paswater | Online | 222CKG241AO
Sunday, 2/27, 11 am–12:30 pm | Cheryl Paswater | Online | 222CKG241BO

MAKING KOMBUCHA
Fermentation—known as zymology—refers to the conversion of carbohydrates into alcohols, carbon dioxide, yeast, or bacteria. Discover the basic science of how to ferment tea in order to make kombucha, as well as how it can improve your gut health. You’ll learn different ways to brew teas, receive a variety of kombucha recipes, sources for acquiring starter culture, and best practices for feeding it. | $45/$49
Wednesday, 11/10, 6:30–8:00 pm | Cheryl Paswater | Online | 222CKG201O

HOLIDAY PRESERVES
Ring in the holiday season with decadent winter fruit preserves. Learn how to make brandied fruit, spiced apple compote, and almond pears in amaretto syrup from Cornell-trained master food preserver Stephen Nocera. He will demonstrate how to properly preserve fruit, make these delectable delights, and share recipes that will add pizzazz to your holiday table or be the favorite homemade gift for your foodie friends and family! All materials provided. | $79/$85
Sunday 11/13, 11 am–3 pm | Stephen Nocera | NYBG | 222CKG218

BEEKEEPING BASICS
Expert beekeepers Frank Mortimer and Robert Sianzi walk you through the ins and outs of what’s needed to safely, productively, and enjoyably begin to keep honeybees in a populated area. You’ll learn how and why a beehive functions as one living organism, as well as the practicalities of how to manage a colony and begin to produce honey. | $59/$65
Sunday, 3/13, 11 am–2 pm | Frank Mortimer & Robert Sianzi | NYBG | 222CKG206

BOTANICAL MIXOLOGY
Go beyond the garnish to explore the world of oleo-saccharums, infusions, simple syrups, and tinctures using plants and ingredients accessible to the urban gardener. You’ll learn history and receive growing advice, as well as recipes. Jim will demonstrate how to make your own tincture to perk up your homemade cocktails! | $59/$65
Tuesday, 12/7, 6–9 pm | Jim Freeman | Manhattan | 212CKG243A
Tuesday, 2/8, 6–9 pm | Jim Freeman | Online | 222CKG243BO

FORAGING IN WINTER
When the trees have dropped their leaves and there is a chill in the air, there are still many things to see in the woods and wide-open spaces. Join wild foods author and forager Marie Viljoen for a brisk walk in the Garden to discover and identify edible, fragrant, and useful plants, such as juniper, spicebush, and bayberry in their winter camouflage. Outside only; snow or shine. | $59/$65
Saturday, 3/5, 11 am–1 pm | Marie Viljoen | NYBG | 223CKG247

GROW GOURMET MUSHROOMS
Mushrooms have been utilized for thousands of years for medicinal and edible purposes. John Michelotti, owner of Catskill Fungi, will show you how to cultivate gourmet mushrooms at home using safe and simple techniques. Using cardboard and coffee grounds, create your own oyster mushroom starter (Pleurotus ostreatus) to take home, while learning about the life cycles, characteristics, and medicinal and culinary properties of fungi. | $79/$85
Saturday, 1/29, 11 am–1 pm | John Michelotti | Online | 222CKG207O

PRESERVING CITRUS: MARMALADES & CURD
Early winter is when citrus is at its juiciest. Learn how to preserve these fruits and savor their tangy flavor throughout the year. Cornell-trained master food preserver Stephen Nocera will demonstrate the proper balance of sweet and tart while making a Meyer lemon curd, a pectin-free tangerine marmalade, and Moroccan-style preserved lemons. All materials provided. | $79/$85
Sunday, 2/6, 11 am–3 pm | Stephen Nocera | NYBG | 222CKG249

MAKING MISO
High in protein and rich in vitamins and minerals, miso has played an important nutritional role in Japan for centuries. In the traditional recipe, soybeans are fermented with salt and the fungus Koji, or Aspergillus oryzae. Explore the science behind making miso—both with soy and without, how it’s good for you, and how to prepare it yourself. You’ll walk away with recipes and techniques for making miso from soybeans, black beans, and nuts at home. | $45/$49
Wednesday, 2/16, 6:30–8:00 pm | Cheryl Paswater | Online | 222CKG208O

INSTRUCTOR BIOS CAN BE FOUND ONLINE AT NYBG.ORG/ADULTED
Floral Design

The New York Botanical Garden is home to New York City's oldest and most prestigious Floral Design Program, and for over four decades has sent hundreds of graduates on to enjoy rewarding careers. Take an individual course for fun, or pursue a Certificate in Floral Design—either way, you'll develop the mastery and confidence to express yourself through flowers.

THE CERTIFICATE PROGRAM

The NYBG Certificate is a nationally recognized mark of excellence in floral design that tells the world you have the talent and knowledge to interpret changing trends and provide creative design solutions. With comprehensive hands-on instruction from industry pros, you'll create dozens of original floral designs for all occasions, gain a solid grounding in floral theory and history, and develop the contacts and business savvy you need to advance your career or manage your own business.

FOR ALL STUDENTS:

• Register early! With our new, expanded online offer, we often order and ship your flowers to you.
• For in-person classes, we provide all materials, except a floral knife and pruners. To purchase a tool kit, including knife, wire cutter, scissors, and pruners, email adulted@nybg.org or call 718.817.8720.
• For online classes, please see each individual course description on our website for a list of hard goods (containers, tools, etc.) you must purchase or have on hand before class.

CERTIFICATE REQUIREMENTS

Certificate students must complete 142 total course hours (116 required + 26 elective), plus an 80-hour internship. Students are also required to submit a portfolio showcasing photos of class assignments and their own unique creations. For a complete description of the program including internship and portfolio requirements, please visit our website.

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamentals of Form</td>
<td>FDN 300</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Fundamentals of Style</td>
<td>FDN 302</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Wedding Design I: Personals</td>
<td>FDN 304</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Color Theory for Floral Design</td>
<td>FDN 306</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Flower ID from A to Z</td>
<td>FDN 308</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Interior Plantscapes</td>
<td>FDN 310</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Shopping the New York Flower Market</td>
<td>FDN 400</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>Modern Sympathy Design</td>
<td>FDN 382</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Wedding Design II: Ceremony &amp; Reception</td>
<td>FDN 305</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>Grand-Scale Arrangements</td>
<td>FDN 502</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Event Planning for the Floral Designer</td>
<td>FDN 504</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>Elective courses</td>
<td></td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>TOTAL REQUIRED HOURS</td>
<td></td>
<td>142</td>
<td></td>
</tr>
</tbody>
</table>
## ELECTIVES

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prop Styling with Botanicals</td>
<td>FDN 312</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Boho Bouquet with the Egg Cage</td>
<td>FDN 313</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Arranging with Silk Flowers: French-Style Design</td>
<td>FDN 437</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Designing with Winter’s Palette</td>
<td>FDN 330</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Gothic Style: Dark and Dramatic</td>
<td>FDN 307</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Winter White Centerpiece &amp; Tablescape</td>
<td>FDN 320</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>Thanksgiving Modern Harvest Tabletop</td>
<td>FDN 322</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>Dazzling Dahlias: Urban Garden Glamor Design</td>
<td>FDN 311</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>Materials as Muse: Making Art with Flowers</td>
<td>FDN 323</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Ikebana: A Comprehensive Approach</td>
<td>FDN 325</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>The Art of Bold &amp; Bright Design</td>
<td>FDN 344</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Holiday Greens</td>
<td>FDN 355</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Magnolia Leaf Wreath</td>
<td>FDN 355</td>
<td>4</td>
<td>17</td>
</tr>
</tbody>
</table>

**Courses offered in the Spring–Summer Catalog**

Courses with a prerequisite before you can register.

**QUESTIONS? CONTACT PROGRAM COORDINATOR**

THOMAS CAWLEY AT [FDNCOORDINATOR@NYBG.ORG](mailto:FDNCOORDINATOR@NYBG.ORG)

---

**FLOWER ARRANGING AT HOME**

Bring cheer into your home and exercise your botanical creativity, with live, real-time direction. Watch your fellow students’ efforts online and get personal critiques from your instructor as you build your elegant arrangement with fresh flowers and veggies from your own garden, farmers market, or local grocery store. $35/$45

- Monday, 10/4, 6–8 pm | Nsombi Woodson | Online | 222FDN243AO
- Monday, 11/15, 6–8 pm | Nsombi Woodson | Online | 222FDN243BO
- Thursday, 12/9, 6–8 pm | Rose G. Edinger | Online | 222FDN243CO
- Wednesday, 1/19, 10 am–12 pm | Nsombi Woodson | Online | 223FDN243DO
- Thursday, 2/24, 6–8 pm | Rose G. Edinger | Online | 223FDN243EO
- Monday, 3/28, 6–8 pm | Nsombi Woodson | Online | 223FDN243FO

**NEW! MATERIALS AS MUSE: MAKING ART WITH FLOWERS**

What is the line between art and decoration? Think beyond the confines of “pretty” and consider flowers in terms of line, gesture, texture, and form. We will examine the bright colors and infinite patterns of a masterwork by Yayoi Kusama and create sculptural interpretations in dialogue with that work. Then, unleash your creativity and design a creation inspired by an artwork of your choice. $170 materials fee. $75/$85 Certificate Elective

- Tuesday, 9/28, 11 am–2 pm | Joshua Werber | NYBG | 221FDN323

---

**NEW! DAZZLING DAHLIAS: URBAN GARDEN GLAMOR DESIGN**

With divine dahlias, sweetpeas, fall foliage, and blackberries in a pedestal container, create a sense of elegance and exuberance in your floral arrangement. Urban garden glamor—a design trend popular among New York floral artists—provides a loose and romantic meadow-inspired vibe for today’s lifestyle. Through hands-on demonstration, we will explore techniques of using complementary colors, creating depth with textures and balance in shape. $100 materials fee. $115/$125 Certificate Elective

- Thursday, 10/7, 11 am–1 pm | Trish O’Sullivan | NYBG | 222FDN311

**BOHO BOUQUET WITH THE EGG CAGE**

The elegant Boho bridal bouquet continues to be on trend. Learn to design an asymmetrical array of blossoms accented by at least three different types of greenery using an egg cage, a technique popularized by Holly Heider Chapple as an alternative to floral foam. Students will source flowers per instructor list. $75/$85 Certificate Elective

- Monday, 10/18, 6–8 pm | Nsombi Woodson | Online | 222FDN313O

**PROP STYLING WITH BOTANICALS**

Professional prop stylist Robin Zachary shares her insights on styling photos using botanicals. She’ll demonstrate you how to curate a variety of tabletop settings, including modern, vintage, and rustic photos using botanicals. $59/$65 Certificate Elective

- Saturday, 10/23, 11 am–1 pm | Robin Zachary | Online | 222FDN312AO
- Saturday, 1/22, 11 am–1 pm | Robin Zachary | Online | 223FDN312BO

**IKEBANA: A COMPREHENSIVE APPROACH**

This ancient Japanese art form seeks to create a living sculpture that transcends the beauty of nature. More than merely arranging flowers, ikebana often emphasizes other areas of the plant, such as its stems and leaves, focusing on shape, line, harmony, and balance. Instructor Junko Miura, acclaimed floral artist and a second-generation ikebana master, guides you through the basic principles as well as the moribana and nageire forms. $180 materials fee. Please bring wire cutters to class. $235/$279 Certificate Elective

- 3 Tuesdays, 1/11–1/25, 11 am–2 pm | Junko Miura | Manhattan | 223FDN325

**DESIGNING WITH WINTER’S PALETTE**

Bring wintry flair into your home. Fashion an elegant and textural arrangement using a mix of natural materials such as lichen branches, juniper, quince branches, and eucalyptus pods, combined with seasonal floral gems, including hellebores, amaryllis, poppies, and orchids. $170 materials fee.

- $115/$125 Certificate Elective

- Wednesday, 1/26, 6–9 pm | Joshua Werber | Online | 223FDN330O

**THE ART OF BOLD AND BRIGHT DESIGN**

Brighten up those winter days with an audacious arrangement featuring pops of cheerful, colorful flowers. Using magnolias, narcissus, tulips, fritillaries, Muscari, and more, you’ll create a contemporary floral centerpiece that is reminiscent of spring days ahead. $170 materials fee. $125/$135 Certificate Elective

- Thursday, 2/10, 6–9 pm | Joshua Werber | Manhattan | 223FDN344

**NEW! ARRANGING WITH SILK FLOWERS: FRENCH-STYLE DESIGN**

Explore the basic techniques of handling silk flowers to create a beautiful, luxe French-inspired flower arrangement. Gain helpful skills such as wiring and use of hot glue, and learn how to select the best materials for achieving original and unusual effects. Bring wire cutters. $75 materials fee. $115/$125 Certificate Elective

- Wednesday, 2/23, 10 am–1 pm | Claire Won Kang, AIFD | NYBG | 223FDN437
**Seasonal Workshops**

**GOTHIC STYLE: DARK AND DRAMATIC**

Channel windswept moors and foreboding castles and covens as you create a haunting floral design utilizing dramatic and beautiful seasonal materials. You’ll combine inky toned blooms with twisted branches and seed pods to create witchy, wild arrangements for your entranceways, dining tables, or mantels.

$170 materials fee. | $115/$125 Certificate Elective

Wednesday, 10/27, 6–9 pm
Joshua Werber | Manhattan | 222FDN307

**NEW! THANKSGIVING MODERN HARVEST TABLETOP**

Learn step-by-step instructions in crafting a modern fall woodland arrangement with pincushion proteas, mango Mokara orchids, and heirloom chrysanthemums. Our autumnal theme, in a glass container, will reflect a modern woodland design with glycerin oak leaves, berries, reeds, and vines. Learn tips to showcase an eclectic tabletop of flowers, textures, tableware, props, and linens that complete the harvest ambience. $85 materials fee. | $115/$125 Certificate Elective

Friday, 11/5, 11 am–1 pm
Trish O’Sullivan | NYBG | 222FDN322

**HOLIDAY GREENS**

The holidays come to life with fragrant, long lasting decorations for your door, table and mantel. Explore working with fresh pine, fir, cedar, boxwood, juniper and arborvitae. Cones and berries will add seasonal interest. Personalize your projects with accents of ribbons and millimeter balls.

$80 materials fee. | $135/$149 Certificate Elective

Saturday, 12/4, 10 am–3:30 pm
Ken Norman, AIFD | NYBG | 222FDN335

**MAGNolia LEAF WREATH**

Southern charm and hospitality come front and center with a glossy, richly decorated wreath of magnolia leaves on a door, mantel, or accent wall. Weave leaves into a wreath form, then complement shape and color with seasonal fruit, pine cones, holly, and other greenery. $65 materials fee. | $125/$139 Certificate Elective

Wednesday, 12/15, 10 am–2:30 pm
Tom Cawley | NYBG | 222FDN302D

**WINTER WHITE CENTERPIECE & TABLESCAPE**

Create a Dutch Masters still-life inspired centerpiece crafted from seasonal flowers and herbs, including roses, calla lilies, ranunculus, hydrangeas, rosemary, berries, pine, and eucalyptus stems. We’ll also discuss the best choices for napkin and candle decoration to invoke warm yuletide cheer. $125 materials fee. | $115/$125 Certificate Elective

Thursday, 12/16, 11 am–1 pm
Trish O’Sullivan | NYBG | 222FDN320
Sustainable Design Series

**WEDDING DESIGN I: PERSONALS**
Flowers are crucial for a memorable wedding. Learn the art of successful floral wedding design, including fine wiring and taping to create corsages and boutonnieres with fresh flowers, ribbons, and bows. Advance to styling and assembling bridal and bridesmaid bouquets. $250 materials fee. [Prerequisite: Fundamentals of Style | $395/$435 Certificate Requirement]

- Tuesdays—Thursday, 11/2–11/4, 10 am–4 pm
- Rose G. Edinger | NYBG | 222FDN304AO
- Tuesdays–Friday, 11/9–11/11, 10 am–4 pm
- Thomas Cawley | NYBG | 222FDN304B
- Wednesday–Friday, 11/5–11/13, 10 am–4 pm
- Rose G. Edinger | NYBG | 223FDN304BO
- Tuesday, 3/1–3/3, 10 am–2:30 pm
- Rose G. Edinger | Online | 223FDN304DO

**COLOR THEORY FOR FLORAL DESIGN**
Colors—like flowers themselves—evoke feelings and set the mood. Explore the role of color in floral design across a spectrum of flowers. This course gives you a solid grounding in color theory, while highlighting popular hues and color combinations. Students will source flowers per instructor guidelines. $195/$215 [Certificate Requirement]

- 3 Thursdays, 11/4–11/18, 6–8:30 pm
- Rose G. Edinger | Online | 222FDN306AO
- 3 Tuesdays, 2/1–2/15, 6–8:30 pm
- Rose G. Edinger | Online | 223FDN306BO

**INTERIOR PLANTSCAPES**
Florists and designers who want long-lasting, gorgeous interior plantings won’t want to miss this unique class highlighting essential horticulture practices for selecting and maintaining plants for atria, corporate offices, and special events. Trimming, pruning, pest testing, pest prevention, cleaning, and more are covered. $30 materials fee. $195/$215 [Certificate Requirement]

- 2 Fridays, 11/12 & 11/19, 10 am–2:30 pm
- Chris Raimondi, CLP | NYBG | 222FDN310A
- 2 Fridays, 3/11 & 3/18, 10 am–2:30 pm
- Chris Raimondi, CLP | NYBG | 223FDN310B

**WEDDING DESIGN II: CEREMONY & RECEPTION**
Design and create arrangements appropriate for the ceremony, season, and setting, including aisle and altar designs, pew arrangements, and banquet table centerpieces. Work with a remarkable array of flowers, foliage, and fabrics to create captivating garlands and columns. Discussions include a variety of ceremonial styles, including chuppahs, in both outdoor and indoor venues. $245 materials fee. [Prerequisite: Wedding Design I | $395/$435 Certificate Requirement]

- 4 Mondays, 11/15–11/18, 10 am–2:30 pm
- Tom Cawley | NYBG | 222FDN305

**EVENT PLANNING FOR THE FLORAL DESIGNER**
In addition to exquisite design, a successful event requires a well-conceived plan. Learn how to write a sales proposal based on cost analysis, finalize the terms of the design contract, and order and organize materials, personnel, and deliveries, all within a specified budget and time line. Learn how to stage decor for large-scale event arrangements, design cocktail receptions, and develop formal and informal tablescapes. $185 materials fee. [Prerequisite: Wedding Design II | $285/$315 Certificate Requirement]

- 3 Thursdays, 1/13–1/27, 10 am–2:30 pm
- Thomas Cawley | NYBG | 223FDN504

**MODERN SYMPATHY DESIGNS**
Sympathy arrangements, properly composed, pay tribute to a departed loved one and offer solace to the grieving. There are details to be discussed with a bereaved family, special etiquette to be observed, and a wide choice of designs that make a touching statement of final tribute. Construction and mechanic of funeral baskets, casket sprays, and set pieces associated with a diversity of cultural traditions are emphasized. $170 materials fee. [Prerequisite: Fundamentals of Form | $179/$195 Certificate Requirement]

- Saturday, 2/26, 10 am–4:30 pm
- Ken Norman | NYBG | 223FDN382

**GRAND-SCALE ARRANGEMENTS**
Full, lavish arrangements to enhance entrance halls, ballrooms, parties, and hotels are always in demand. Learn the mechanics behind how these dramatic arrangements are designed and constructed. $225 materials fee. [Prerequisite: Wedding Design II | $229/$255 Certificate Requirement]

- Wednesday & Thursday, 3/23 & 3/24, 10 am–2:30 pm
- Nsombi Woodson | NYBG | 223FDN502

Registration fee for each section: $55/$59
All Three Sections: $145/$159

---

**FLORAL PIN FROG**
Study the ins and outs of using pin frogs to secure a variety of flowers within an arrangement to create a sense of movement and openness.

- November 10 | Rose G. Edinger | 222FDN445AO
- January 11 | Rose G. Edinger | 223FDN445BO

**ALUMINUM WIRE**
Learn how to properly manipulate aluminum craft wire (16 gauge) to create a supportive metal framework for contemporary arrangements.

- November 17 | Rose G. Edinger | 222FDN446AO
- January 18 | Rose G. Edinger | 223FDN446BO

**BRANCHES**
Discover which branches work best, and practice properly placing them to achieve unique shapes, without the use of floral foam. Take one or sign up for all three!

- December 1 | Rose G. Edinger | 222FDN447AO
- January 25 | Rose G. Edinger | 223FDN447BO

Registration fee for each section: $55/$59
All Three Sections: $145/$159

---

**INTERIOR PLANTSCAPES**
Florists and designers who want long-lasting, gorgeous interior plantings won’t want to miss this unique class highlighting essential horticulture practices for selecting and maintaining plants for atria, corporate offices, and special events. Trimming, pruning, pest testing, pest prevention, cleaning, and more are covered. $30 materials fee. $195/$215 [Certificate Requirement]

- 2 Fridays, 11/12 & 11/19, 10 am–2:30 pm
- Chris Raimondi, CLP | NYBG | 222FDN310A
- 2 Fridays, 3/11 & 3/18, 10 am–2:30 pm
- Chris Raimondi, CLP | NYBG | 223FDN310B

Illustration: Wheel of Fortune (Cherry Blossom), Prunus (detail), ©Joanne Yun, 2021 Graduate
Now more than ever, people are realizing the physical, social, and psychological benefits of home and community gardening. Whether you are pursuing a Certificate or just looking for a fun class, NYBG is a great place to increase your gardening knowledge and improve your skills. Taught by top professionals, each course provides cutting-edge information on ecologically responsible garden care and design, including plant use, soil husbandry, composting, and pest control.

THE CERTIFICATE PROGRAM
Upon completion of the NYBG Gardening Certificate Program, students will:

- Create beautiful and ecologically sound gardens that combine trees, shrubs, perennials, annuals, and bulbs.
- Be proficient in identifying, selecting, cultivating, and caring for trees and shrubs, vegetables, flowers, and fruit.
- Have the confidence to grow and maintain home, terrace, or community gardens.
- Understand the essential concepts of sustainable gardening practices for trees, shrubs, lawns, perennials, and vegetables.

CERTIFICATE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamentals of Gardening</td>
<td>GAR 301</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Introduction to Plant Science</td>
<td>HRT 300</td>
<td>16</td>
<td>27</td>
</tr>
<tr>
<td>Soil Science for Gardeners</td>
<td>GAR 302</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Gardening with Native Plants</td>
<td>GAR 315</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>Insect Identification and Management</td>
<td>GAR 320</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Disease Identification and Management</td>
<td>GAR 324</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Fundamentals of Garden Design</td>
<td>GAR 342</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Vegetable Gardening</td>
<td>GAR 431</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Complete Garden Care and Maintenance</td>
<td>GAR 440</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>Pruning Principles and Practices</td>
<td>HRT 321</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td>Plants for Landscaping</td>
<td>HRT 358</td>
<td>16</td>
<td>28</td>
</tr>
<tr>
<td>Plant Propagation I: Basic Principles</td>
<td>HRT 411</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>Elective GAR or HRT courses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL REQUIRED HOURS</td>
<td></td>
<td>187</td>
<td></td>
</tr>
</tbody>
</table>
ELECTIVES

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designing with Shrubs</td>
<td>GAR 359</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Garden Design Workshop</td>
<td>GAR 317</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Container Gardening</td>
<td>GAR 327</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Basic Color Theory for Gardeners</td>
<td>GAR 367</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>The Native Garden in Fall and Winter</td>
<td>GAR 369</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Botanical Latin</td>
<td>GAR 360</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Rooftop Gardening</td>
<td>GAR 328</td>
<td>6</td>
<td>21</td>
</tr>
<tr>
<td>Super Small Space Veggie Gardening</td>
<td>GAR 330</td>
<td>9</td>
<td>22</td>
</tr>
</tbody>
</table>

**Courses offered in the Spring–Summer Catalog

Courses with a prerequisite before you can register

For professional organizations, see p. 43.

QUESTIONS? CONTACT PROGRAM COORDINATOR
DARYL BEYERS AT GARCOORDINATOR@NYBG.ORG
BASIC COLOR THEORY FOR GARDENERS
Learn how to effectively use color in plant combinations. Study the properties of value, hue, and intensity as they relate to choosing specific garden plants. Visual presentations and discussions are used to analyze various color schemes including analogous, sequential, complementary, and monochromatic. | $99/$109 Certificate Elective
2 Sundays, 2/27 & 3/6, 10 am–12 pm
Laura McKillop | NYBG | 221GAR367

NEW! PRUNING BIG LEAF AND MOUNTAIN HYDRANGEAS
Pruning hydrangeas can be one of the most confusing chores in the garden. In this class, you’ll explore the pruning needs of the two most common and similar hydrangeas—the big leaf and mountain varieties. Hydrangea expert Lorraine Ballato will teach you how to properly examine what stays and what goes, and discuss the best time to prune during the gardening season. Time to clear the air once and for all! | $59/$65
Sunday, 9/26, 10 am–12 pm
Lorraine Ballato | Online | 221GAR1770

ROOFTOP GARDENING
From vegetable selection to pest control to composting, learn the basics of rooftop, terrace, and balcony growing, covering both container and green roof garden systems. | $115/$125 Certificate Elective
3 Tuesdays, 10/5–10/19, 6:15–8:15 pm
Annie Novak | Online | 222GAR3280

INTRODUCTION TO BULBS
Since autumn is the optimum season to plant bulbs, now is the time to decide what will work best in your garden. In this class, you'll receive an overview of bulbs—what they are and how to properly plant them. Common problems and solutions for a successful growing season will also be covered. | $55/$59
2 Thursdays, 10/7 & 10/14, 5–6:30 pm
Michael Hagen | Online | 222GAR287AO
2 Tuesdays, 10/19 & 10/26, 5–6:30 pm
Michael Hagen | NYBG | 222GAR287B

THE NATIVE GARDEN IN FALL AND WINTER
With a little bit of planning, your garden can look beautiful in all seasons, even after the flowers fade. Knowing which plants to select is key, since, according to rock star garden designer Piet Oudolf, it's about “texture and shape, the seed heads and the skeletons.” Environmental horticulturist and landscape designer Kim Eierman will introduce you to a variety of native plants that will extend the color show and textural interest in your garden through fall and winter, with beautiful foliage, striking structure, colorful branches, berries, and seed pods. | $75/$85 Certificate Elective
3 Thursdays, 11/4–11/18, 6:15–8:15 pm
Kim Eierman | Online | 222GAR369O
3 Tuesdays, 11/11–11/25, 6–8 pm
Kim Eierman | Online | 223HRT142B

VERSATILE VIBURNUMS
Viburnums have skyrocketed in popularity for good reason! They offer unparalleled beauty and fragrance, adaptability and pest resistance, landscape diversity, food for birds and pollinators, and much more. Learn how to choose and care for the many available native and exotic species and cultivars that can thrive in your garden. | $59/$65
2 Saturdays, 10/30 & 11/6, 10:30 am–12 pm
Vincent Simeone | NYBG & Online | 222GAR156BL

CUT FLOWER FARMING
Discover how to design, plant, grow, and harvest a cutting garden that will be productive throughout the year. You’ll practice starting seeds to ensure you always have something fresh to cut. We’ll also cover traditional and unexpected annuals that thrive locally. | $169/$185
3 Sundays, 9/19–10/3, 11 am–1 pm
Anne Marie Breyer | Online | 221HRT142CO
3 Thursdays, 11/4–11/18, 6–8 pm
Anne Marie Breyer | Online | 222HRT142AO
3 Tuesdays, 11/11–11/25, 6–8 pm
Anne Marie Breyer | Online | 223HRT142BO
3 Thursdays, 12/2–12/16, 6–8 pm
Anne Marie Breyer | Online | 223HRT142DO

OUTDOOR PLANTS

NEW! GARDENING STRATEGIES FOR CLIMATE CHANGE
Small steps can have big effects. Learn how the plants you choose and the landscape practices you use can help reduce the impacts of climate change and improve the environment around you. | $79/85 Certificate Elective
2 Mondays, 9/20 & 9/27, 10 am–12 pm
Kim Eierman | Online | 221GAR379BO

MASTERING THE ART OF TOMATO GARDENING
Learn how to plant and care for a healthy, organic tomato garden. In the spring, we’ll focus on selecting the right plants for your space, as well as starting plants from seed, transplanting, and grafting. In the fall, learn to create trellises, manage pests and diseases, devise a fertilizing regimen, and select and store your most successful plants’ seeds. Sign up for one or both! | $69/$75
2 Wednesdays, 9/22 & 9/29, 6:15–7:45 pm
Annie Novak | Online | 221GAR143BO
2 Wednesdays, 10/13 & 10/20, 6:15–7:45 pm
Annie Novak | Online | 222GAR143O

NEW! FLORATopia
Landscape designer Jan Johnsen’s newest book, Floratopia, reveals how to combine annual and perennial flowers for color and seasonal interest, while attracting pollinators. She revisits the beloved classic blooms along with the latest hardy varieties. Join her for an up-close-and-personal look at some private flower gardens that both inspire and benefit our ecosystem. | $55/$59
Wednesday, 12/15, 11 am–1 pm
Jan Johnsen | Online | 222GAR170O

A KITCHEN GARDEN PLAN
Devote special new space for herbs, vegetables, fruits, and flowers for cutting. Get design inspirations for planning your own kitchen garden and discover tried-and-true small trees, shrubs, and herbaceous plants best suited to your site. Explore annuals and perennials, herbs for tea and culinary uses, and great ways to include both classic and novelty vegetables. | $55/$59
Sunday, 1/23, 10 am–1 pm
Annie Novak | Online | 223GAR155O

DAUNTLESS DAHLIAS
Low-maintenance dahlias thrive in our coastal climate. When they bloom in mid-July, their spiky, colorful blossoms brighten up gardens and flower beds across the city. Learn best practices to help your dahlias flourish, including how and when to disbud, stake, water, and much more. | $55/$59
Saturday, 3/19, 11 am–1 pm
Frances Palmer | Online | 223GAR243O

NEW! INTRoDUCTIoN To BULBS
Discover how to effectively use color in plant combinations. Study the properties of value, hue, and intensity as they relate to choosing specific garden plants. Visual presentations and discussions are used to analyze various color schemes including analogous, sequential, complementary, and monochromatic. | $99/$109 Certificate Elective
2 Sundays, 2/27 & 3/6, 10 am–12 pm
Laura McKillop | NYBG | 221GAR367
GARDEN MAINTENANCE

LANDSCAPE FOR CURB APPEAL
Make a great first impression by creating a welcoming entry garden for your home. Review examples that work for different architectural styles, and develop plant lists that fit the specific needs of every type of front yard. | $55/$59

Saturday, 10/2, 10 am–12 pm
Daryl Beyers | Online | 222GAR326O

PUT YOUR GARDEN TO BED
What can you do this fall for your best garden ever next spring? Learn techniques to improve soil quality, protect perennials and tender plants through the winter, eliminate potential sites for insects and diseases, and manage all those fallen leaves. | $45/$49

Sunday, 10/3, 10 am–12 pm
Leda Meredith | Online | 222GAR185AO

PRUNING: HOW, WHEN, AND WHERE
This two-day course covers proper pruning techniques for maintaining shrubs, evergreens, hedges and trees. Recommended tool choices and their maintenance will be discussed. Shrub pruning demonstration included. | $75/$85

Saturday, 10/23, 10 am–2 pm
Ann Perkowski | NYBG | 222GAR236A

2 Saturdays, 2/26 & 3/5, 10 am–12 pm
Ann Perkowski | Online | 222GAR185BO

Sunday, 3/27, 10:30 am–2:30 pm
Ann Perkowski | NYBG | 222GAR236C

RAISED BED GARDENING
Raised beds make gardening easier and allow you to successfully grow vegetables, herbs, and ornamentals in problem soils and small spaces. Learn the best ways to build raised beds, as well as how to maximize their beauty and productivity. | $55/$59

Sunday, 3/6, 10 am–12 pm
Nick Storrs | Online | 223GAR280O

SUPER SMALL SPACE VEGETABLE GARDENING
Whether you have a terrace, rooftop, or tiny backyard, you too can be a successful veggie gardener! Learn how to prepare soil, select containers, design beds, choose crops, and maximize your yield. Get your spring started with smart seed ordering, growing and choosing the right transplants, and strategizing for irrigation, pest management. | $169/$185 Certificate Elective

3 Wednesdays, 3/9–3/23, 6:15–8:15 pm
Annie Novak | Online | 223GAR330O

GET MORE FROM YOUR VEGETABLE GARDEN
Learn techniques such as succession and companion planting, intercropping, and vertical growing to achieve a steady harvest and enjoy a wide variety of delicious crops. We’ll focus on sustainable practices that help gardeners work with nature. | $55/$59

Sunday, 3/20, 10 am–12 pm
Annie Novak | Online | 223GAR134O

INDOOR TROPICALS
Are you looking to up your houseplant game? We can help! We’ll walk you through many different species with stunning foliage or flowers—including bromeliads and palms—that will bring a hint of the sun-drenched tropics to your home. We’ll discuss the light, soil, water, and maintenance requirements of a broad array of plants, so you can select which plants are right for you. | $75/$85

Saturday, 2/5, 10 am–1 pm
Michael Troy Brown | Online | 223GAR280O

FRAGRANT INDOOR GARDEN
When winter winds blow cold, bring nature inside with houseplants that provide fragrance and color year round. Learn the full range of indoor plants with scented flowers and foliage: citrus, jasmines, hoyas, passionflowers, geraniums, orchids, herbs, bulbs, and more! Learn to select the right plant for each growing space and discover how to pot, water, and fertilize scented plants. | $55/$59

Saturday, 3/19, 10 am–12 pm
Jim Freeman | Manhattan | 223GAR223

PLANT PROPAGATION FOR THE HOME GARDENER
Discover how to reproduce the plants you love! Have your favorite plants ready for this interactive online session, where you’ll learn the best ways to create cuttings and make divisions for propagating different species. We’ll show you what rooting material to use, and how to care for your new plants as they grow. | $55/$59

Wednesday, 2/9, 6–8 pm
Nick Gershberg | Online | 223GAR280O

WEATHERPROOF HYDRANGEAS
Gardening in areas with wildly fluctuating temperatures and conditions can be a tricky business if you desire colorful and robust hydrangea flowers. Learn what measures you can take to improve the growth and growth frequency of these favored blooms, starting with right plant, right place to much more. | $55/$59

Saturday, 3/12, 10:30 am–12:30 pm
Lorraine Ballato | Online | 223GAR272O

VERTICAL GARDENING: VINES & CLIMBERS
Clematis, wisteria, roses, hardy jasmine, hydrangea, and other climbers provide strong vertical design, create outdoor enclosures, and transform unattractive structures. Learn to select and train the right plant for your space. | $55/$59

Sunday, 3/13, 10 am–1 pm
Doris Loechle | NYBG | 223GAR146

ORCHIDS FOR BEGINNERS
Though orchids are the most common houseplant in America, many people still feel slightly intimidated by caring for them. Learn the basics! Explore how these beauties grow in nature and what that can teach us about keeping your plants healthy. | $55/$59

Sunday, 11/14, 11 am–1 pm
Barbara Schmidt | Online | 223GAR213AO

UNEARTHING THE SECRET GARDEN: A CONVERSATION WITH MARTA MCDOWELL
Landscape historian, NYBG instructor, and award-winning author Marta McDowell uncovers the inspiration behind The Secret Garden—a garden story that has captivated generations of curious children and adults alike. In her newest book, Unearthing The Secret Garden: The Plants & Places That Inspired Frances Hodgson Burnett, McDowell explores Burnett’s life, work, and passion for flower gardening—with an exclusive behind-the-scenes look into the author’s personal gardens located in England, the United States, and Bermuda. | $15/$18

Tuesday, 9/15, 11 am–12 pm
Marta McDowell | Online | 221GAR823O

INDOOR PLANTS

FRAGRANT INDOOR GARDEN
When winter winds blow cold, bring nature inside with houseplants that provide fragrance and color year round. Learn the full range of indoor plants with scented flowers and foliage: citrus, jasmines, hoyas, passionflowers, geraniums, orchids, herbs, bulbs, and more! Learn to select the right plant for each growing space and discover how to pot, water, and fertilize scented plants. | $55/$59

Saturday, 3/19, 10 am–12 pm
Jim Freeman | Manhattan | 223GAR223

PLANT PROPAGATION FOR THE HOME GARDENER
Discover how to reproduce the plants you love! Have your favorite plants ready for this interactive online session, where you’ll learn the best ways to create cuttings and make divisions for propagating different species. We’ll show you what rooting material to use, and how to care for your new plants as they grow. | $55/$59

Wednesday, 2/9, 6–8 pm
Nick Gershberg | Online | 223GAR280O

WEATHERPROOF HYDRANGEAS
Gardening in areas with wildly fluctuating temperatures and conditions can be a tricky business if you desire colorful and robust hydrangea flowers. Learn what measures you can take to improve the growth and growth frequency of these favored blooms, starting with right plant, right place to much more. | $55/$59

Saturday, 3/12, 10:30 am–12:30 pm
Lorraine Ballato | Online | 223GAR272O

VERTICAL GARDENING: VINES & CLIMBERS
Clematis, wisteria, roses, hardy jasmine, hydrangea, and other climbers provide strong vertical design, create outdoor enclosures, and transform unattractive structures. Learn to select and train the right plant for your space. | $55/$59

Sunday, 3/13, 10 am–1 pm
Doris Loechle | NYBG | 223GAR146
CERTIFICATE CLASSES
Open to Non-Certificate students

FUNDAMENTALS OF GARDENING
This course is also required for the Horticultural Therapy Certificate.

Explore the basics of successful, environmentally friendly gardening. Topics include soils and their improvement, seed sowing, vegetative propagation, planting, pruning, watering, weeding, mulching, and disease and pest control. $295/$325 Certificate Requirement

6 Saturdays, 10/16–11/20, 10 am–12 pm
Jennifer Cappello-Ruggiero | NYBG | 222GAR301A

6 Tuesdays, 11/2–12/14 (no class 11/23), 6–8 pm
Daryl Beyers | Online | 222GAR301BO

DISEASE IDENTIFICATION AND MANAGEMENT
It’s essential to identify plant diseases before they become widespread in your garden. Explore the basics of disease management, and learn how the principles of Integrated Pest Management (IPM) can help you maintain a strong and healthy garden. $285/$319 Certificate Requirement

9 Sundays, 10/3–12/11 (no class 10/10 & 11/27), 10:30 am–12:30 pm
Jennifer Cappello-Ruggiero | NYBG & Online | 222GAR440BL

SOIL SCIENCE FOR GARDENERS
Understand how soil qualities affect overall plant productivity and make sustainable gardening possible. Topics include soil formation and physical properties; soil-water relationships; irrigation, drainage, and fertilization techniques; and basic soil sampling, pH, and nutrient testing. Note: this is not the same as Soil Science (HRT301) $285/$315 Certificate Requirement

6 Fridays, 10/8–11/12, 10 am–12 pm
Duncan Himmelman | NYBG | 222GAR302A

6 Tuesdays, 1/4–2/8, 10 am–12 pm
Mark Kokinchak | Online | 222GAR302BO

INSECT IDENTIFICATION AND MANAGEMENT
Pest identification is key to maintaining a healthy garden. Identify which common insects are pests and which are beneficial. Learn the most common orders of insects and the damage they can cause, as well as simple, non-toxic methods of preventing major infestations. Please bring samples of insects and damaged plants to class. Note: this is not the same as HRT381 with the same name. $285/$319 Certificate Requirement

5 Saturdays, 11/6–12/18 (no class 11/13 & 11/27), 11 am–1:30 pm
Mark Kokinchak | Online | 222GAR320AO

5 Wednesdays, 1/10–2/12 (no class 1/14), 10 am–1 pm
Tom Forster | Online | 222GAR320BO

FUNDAMENTALS OF GARDEN DESIGN
This class introduces basic garden design principles using the interplay of structural features, plant characteristics, and site assessment. Learn to creatively combine trees, shrubs, perennials, annuals, and bulbs based on color, shape, texture, and size. $285/$315 Certificate Requirement

5 Wednesdays, 11/10–12/15 (no class 11/24), 10:30 am–1 pm
Sheri Forster | Online | 222GAR342AO

5 Tuesdays 2/1–3/1, 6:15–8:45 pm
Daryl Beyers | Online | 222GAR342BO

Illustration: Quince in Spring and Autumn (detail), Cydonia oblonga, ©Alexandra Negota
Saturday Gardening Workshops

All About Containers Saturdays
Saturdays, October 2, 16, & 23, 9:30–11:30 am | Online

CONTAINER GARDENING 101
Learn the basics for planting and maintaining a healthy outdoor container garden: materials and container styles, potting mixes, fertilization, and watering.
October 2 | Online | Jennifer Cappello-Ruggiero 222GAR200BO

THE VERY BEST PLANTS FOR POTS
Containers are an unnatural habitat, with fertilizer, water and root restrictions that suit some plants better than others. Find out which plants to avoid, which ones work well, and which ones really thrive.
October 16 | Online | Renee Marsh 222GAR200C

NEW! GREAT NATIVE PLANTS FOR CONTAINERS
Learn which native plants are the best choices to use successfully in containers. Even if you don’t have room for a perennial garden, you can still invite nature into your yard, patio, or balcony with some great native plants in containers. The butterflies, beneficial insects, hummingbirds, and pollinators will thank you.
October 23 | Online | Kim Eierman 222GAR200D

Registration fee for each section: $55/$59
All Three Sections: $125/$139 | 222GAR200AO

Apartment Gardener’s Saturday
Saturday, October 30 | Manhattan

10 am–12 pm
CREATING AN INDOOR GARDEN
Select the right plants, based on light, temperature, and aesthetics. Discover unusual plants, and tools and techniques to keep indoor plants healthy.

Chris Raimondi, CLP | Manhattan | 222GAR299B
12:45–2:45 pm
SUCCEED WITH LOW-LIGHT PLANTS
Many new and unusual plants can thrive in light-deprived corners. Choose the right plants for your space, and develop fertilization, water management, and pest control techniques for these shade-loving species.

Michael Troy Brown | Manhattan | 222GAR299C
3–5 pm
GROWING HERBS INDOORS
Whether you’re bringing outdoor herbs inside, or starting a kitchen herb garden from scratch, this class covers the essentials—from managing indoor conditions to harvesting and storing herbs for maximum flavor and fragrance.

Christopher Satch | Manhattan | 222GAR299D
Registration fee for each section: $55/$59
All Three Sections: $125/$139 | 222GAR299A

Native Plant Saturday
Saturdays, November 6, 13, & 20
9:30–11:30 am | Online

NATIVE PLANT SELECTION
Discover what makes a plant native, how to find and select the best species for your garden, and how to support and encourage pollinators in your own landscape.
November 6 | Online | Kim Eierman 222GAR202BO

DESIGNING WITH NATIVE PLANTS
Explore how to successfully incorporate native plants into your plans for sustainable garden designs filled with the beauty and diversity you desire.
November 13 | Online | Renee Marsh 222GAR202C

PROPAGATING NATIVE PLANTS
Learn how to collect and sow the seeds of native plants from your local landscape or from commercial sources, and how to propagate plants from your own collection through techniques such as division, cuttings, and layering.
November 20 | Online | Nick Gershberg 222GAR202D

Registration fee for each section: $55/$59
All Three Sections: $125/$139 | 222GAR202A

Wake Up Your Garden! Saturday
February 26 | NYBG

10 am–12 pm
SPRING GARDENER’S TASK LIST
Spring cleaning gives your garden a head start on a great growing season. Review a spring maintenance checklist, from raking off winter mulch to spotting signs of winter injury and noting where gaps in the garden can be filled.

Jennifer Cappello-Ruggiero | NYBG | 223GAR225B
12:45–2:45 pm
PRUNING: SHAPE-UP FOR SPRING
Are you intimidated by pruning? March is a great time to thin out overgrown woody plants to create open, healthy, beautiful trees and shrubs. Learn how and when and why to prune, the tools for the job, and the difference between maintenance and rejuvenation pruning.

Michael Ruggiero | NYBG | 223GAR225D
3–5 pm
SOIL BASICS: GET IT RIGHT!
Rich, nutritious soil makes for large, healthy plants and reduces the need for regular fertilization. Learn the difference between soil structure and texture; how these differences affect plant growth; and how to modify and improve your soil. Give your garden a solid foundation, and you’ll reap the benefits for years to come.

Duncan Himmelman | NYBG | 223GAR225C
Registration fee for each section: $55/$59
All Three Sections: $125/$139 | 223GAR225A
Horticulture

Develop the vital skills needed to protect and manage sustainable landscapes, maintain healthy trees, design attractive gardens, and produce landscape plants. Enroll in a single class or pursue a Horticulture Certificate.

THE CERTIFICATE PROGRAM

Increasing concerns for environmental quality, conservation, and restoration are driving jobs nationwide at landscaping companies, nurseries and garden centers, public parks, botanical gardens, and private estates. The NYBG Horticulture Certificate is a NY State licensed credential that helps professionals enhance their profiles, and individuals pursue new green careers. Taught by landscape and horticulture experts, the unique program blends classroom theory with field studies in the Garden’s historic landscape, offering a high standard of training in four areas of concentration: Plant Production, Sustainable Landscape Management, Arboriculture, and Sustainable Garden Design.
### CERTIFICATE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plant Production</strong> TRACK 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction to Plant Science</td>
<td>HRT 300</td>
<td>16</td>
<td>27</td>
</tr>
<tr>
<td>Soil Science I: Physical Properties</td>
<td>HRT 301</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>Soil Science II: Chemistry and Nutrition</td>
<td>HRT 302</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>Horticultural Techniques: Greenhouse Practices**</td>
<td>HRT 312</td>
<td>15</td>
<td>—</td>
</tr>
<tr>
<td>Insect Pests of Landscape Plants**</td>
<td>HRT 381</td>
<td>18</td>
<td>—</td>
</tr>
<tr>
<td>Plant Propagation I: Basic Principles</td>
<td>HRT 411</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>Plant Propagation II: Applications</td>
<td>HRT 412</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>Disease Identification &amp; Management</td>
<td>HRT 481</td>
<td>18</td>
<td>29</td>
</tr>
<tr>
<td>Nursery and Greenhouse Management</td>
<td>HRT 491</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td><strong>TOTAL REQUIRED HOURS</strong></td>
<td></td>
<td>158</td>
<td></td>
</tr>
</tbody>
</table>

| **Sustainable Landscape Management** TRACK 2 |         |       |      |
| Introduction to Plant Science | HRT 300| 16    | 27   |
| Soil Science I: Physical Properties | HRT 301| 18    | 28   |
| Soil Science II: Chemistry and Nutrition | HRT 302| 18    | 28   |
| Horticultural Techniques: Landscape Gardening** | HRT 311| 18    | —    |
| Pruning Principles and Practices | HRT 321| 15    | 29   |
| Basic Design and Installation of Irrigation Systems | HRT 323| 12    | 30   |
| Business Practices for the Landscape Professional | LAN 457| 12    | 29   |
| Insect Pests of Landscape Plants** | HRT 381| 18    | —    |
| Tree Management | HRT 422| 14    | 29   |
| Landscape Management | HRT 443| 14    | 29   |
| Disease Identification & Management | HRT 481| 18    | 29   |
| Invasive Weed ID & Management | HRT 482| 12    | 28   |
| Mathematics for Horticulturists | HRT 356| 6     | 30   |
| **TOTAL REQUIRED HOURS**       |        | 201   |      |

| **Sustainable Garden Design** TRACK 4 |         |       |      |
| Introduction to Plant Science | HRT 300| 16    | 27   |
| Soil Science I: Physical Properties | HRT 301| 18    | 28   |
| Landscape Plants: Broadleaved Evergreens | HRT 332| 9     | 29   |
| Landscape Plants: Spring Trees and Shrubs** | HRT 334| 12    | —    |
| Landscape Plants: Spring Perennials** | HRT 336| 9     | —    |
| Landscape Plants: Late Season Perennials & Grasses | HRT 338| 12    | 28   |
| Landscape Plants: Annuals** | HRT 341| 8     | —    |
| Landscape Plants: Bulbs | HRT 342| 12    | 30   |
| Annual and Perennial Garden Maintenance | HRT 344| 8     | 29   |
| Plants for Landscaping | HRT 358| 16    | 28   |
| Plant Communities | HRT 140| 6     | 27   |
| Sustainable Garden Care | HRT 395| 8     | 29   |
| Sustainable Garden Design | HRT 551| 20    | 30   |
| Landscape Design History | LAN 301| 24    | 36   |
| Graphics I | LAN 311| 24    | 36   |
| **TOTAL REQUIRED HOURS**       |        | 202   |      |

*Course hours do not include exam hours

**Courses offered in the Spring–Summer Catalog

P Courses with a prerequisite before you can register

For professional organizations, see p. 43.

**QUESTIONS? CONTACT PROGRAM COORDINATOR
CHARLES YURGALEVITCH, PH.D.,
AT HRTCOORDINATOR@NYBG.ORG

“For me, the practice of horticulture is now more of a community affair—thanks to the knowledge, inspiration, and ongoing advice of my NYBG instructors and fellow students.”

— KRISTA KJELLMAN SCHMIDT, 2021 Graduate
**CUT FLOWER FARMING**

Design, plant, and harvest a cutting garden that’s productive throughout the seasons. You’ll get hands-on practice starting seeds to ensure you always have something fresh to cut. We’ll cover traditional and unexpected annual and perennial cut flower species and varieties that grow well locally. $169/$185

- 3 Thursdays, 11/4–11/18, 6–8 pm | Anne Marie Breyer | Online | 222HRT142AO
- 3 Tuesdays, 1/11–1/25, 6–8 pm | Anne Marie Breyer | Online | 223HRT142BO
- 3 Thursdays, 2/17–3/3, 6–8 pm | Anne Marie Breyer | Online | 223HRT142CO
- 3 Mondays, 3/14–3/28, 6–8 pm | Anne Marie Breyer | Online | 223HRT142DO

**PLANT COMMUNITIES**

Fundamentally change the way you view natural landscapes by learning about the complex factors that inform which plants grow in what combinations. Understanding how and why these plant communities form will help you design beautiful landscapes that are more resilient, diverse, and harmonious. $169/$185

- 2 Thursdays, 10/07 & 10/14, 10 am–1 pm | Jessica Hoch | NYBG | 222HRT353S
- 2 Wednesdays, 10/13 & 10/20, 6–7:30 pm & 1 Saturday, 10/16, 10 am–1 pm | Jessica Hoch | NYBG & Online | 222HRT353ABL

**GROWING CANNABIS**

Study the entire cannabis growing cycle, including best practices for critical harvest and post-harvest procedures, and how artificial lighting and carbon dioxide enrichment can help maximize production. We’ll discuss the pros and cons of different grow sites and media, with an extra emphasis on hydroponic production. We’ll also cover the fundamentals of laws regulating cannabis production in the tri-state area. $195/$215

- 6 Wednesdays, 11/3–12/15 (no class 11/24), 6–8pm | Matthew DeBacco & Kelly Crosson | Online | 222HRT156AO
- 6 Mondays, 1/10–2/28 (no class 1/17 or 2/21), 6–8 pm | Matthew DeBacco & Kelly Crosson | Online | 223HRT156BO
- 6 Wednesdays, 3/23–4/27, 6–8 pm | Matthew DeBacco & Kelly Crosson | Online | 223HRT156CO

**NEW TECHNOLOGIES IN URBAN FARMING**

As growing urban populations deplete arable land and potable water, innovative agri-entrepreneurs, aeroponics, aquaponics, and hydroponics to grow food indoors without soil. Four NYC-based experts will discuss their systems and what these new technologies mean for agriculture, climate, and culture today. $15/$18

- Thursday, 12/9, 6–7:30 pm | Charles Yurgalevitch | Online | 222HRT155AO
- Thursday, 2/3, 6–7:30 pm | Charles Yurgalevitch | Online | 223HRT155BO

**INTRODUCTION TO HYDROPONICS**

Growing plants without soil using hydroponics promotes rapid growth and requires less water and space than conventional gardens. Learn what systems work best, which plants to choose, and how to ensure they get proper nutrition. While our focus is on home-scale systems, wider applications of hydroponics are also covered. $195/$215

- 5 Tuesdays, 2/15–3/15, 6:15–8:15 pm | Maya Kutz & Kate Lodvikov | Online | 223HRT141O

---

**The Nature of Oaks**

Oaks support more species of life than any other tree genus in North America, sustaining everything from acorn-collecting woodpeckers to caterpillars that dazzle like jewels. In his latest book, The Nature of Oaks, award-winning author Doug Tallamy shares insights from his study of these superior trees and details how and why they do more than other shade trees to support animal diversity, protect watersheds, and sequester carbon dioxide. Join us as we explore how returning more of these essential trees to green spaces will help restore ecological integrity to our human-dominated landscapes.

Doug Tallamy, Ph.D., is Professor of Agriculture in the Department of Entomology and Wildlife Ecology at the University of Delaware. Chief among his research goals is to better understand the many ways insects interact with plants and how such interactions determine the diversity of animal communities. Tallamy is a prolific researcher and the author of many books, including Bringing Nature Home, The Living Landscape, Nature’s Best Hope, and his latest The Nature of Oaks.

Tuesday, 11/2, 11 am–12 pm | Online | 222HRT817O | $15/$18

---

**CERTIFICATE CLASSES**

Open to Non-Certificate students

**INTRODUCTION TO PLANT SCIENCE**  ALL TRACKS

This user-friendly intro course surveys the major plant groups—flowering plants, conifers, ferns, and bryophytes—focusing on their form and structure. Become botanically literate and gain practical experience in dissecting and analyzing plant structures. $395/$435

- 7 Mondays, 10/4–11/22 (no class 10/11), 6–8:40 pm | Julie Seghrouchni | Manhattan | 222HRT300A
- 7 Thursdays, 10/14–12/9 (no class 11/11 & 11/25), 2–4:40 pm | Levi O’Brien | NYBG | 222HRT300B
- 8 Saturdays, 10/23–12/18 (no class 11/27) 10:30 am–12:30 pm | Lydia Paradiso | Online | 222HRT300CO
- 8 Mondays, 1/10–3/14 (no class 1/17 & 2/21), 6–8 pm | Julie Seghrouchni | Online | 223HRT300DO
- 8 Saturdays, 1/22–3/19 (no class on 2/19), 10:30 am–12:30 pm | Leslie Day | Online | 223HRT300EO
- 7 Tuesdays, 2/1–3/15 (no class 3/8), 10:30 am–1:10 pm | Levi O’Brien | NYBG | 223HRT300F
- 7 Mondays, 3/7–4/18 (no class 3/14), 10 am–12:40 pm | Nina Naghshineh | NYBG | 223HRT300G

Exam on last class date.
LATE SEASON PERENNIALS & GRASSES

This course is designed for horticulturists and gardeners who are familiar with the basic culture of perennials. Learn the identifying characteristics, classification, scientific and common names, and landscape uses of approximately 60 summer- and fall-blooming native and non-native perennials and grasses. Please dress appropriately for outdoors. Blended class: online and on-site. Prerequisite: Intro to Plant Science $295/$325

3 Wednesdays, 9/22–10/6, 5:30–7:30 pm and 3 Saturdays, 9/25–10/16 (no class 10/9), 10 am–12 pm
Michael Hagen | NYBG & Online | 221HRT338ABL

5 Tuesdays, 9/28–10/26, 10 am
Michael Ruggiero | NYBG & Online | 221HRT338BBL

PLANTS FOR LANDSCAPING

Choose the right plant for the right place, based on site-specific design and maintenance criteria. Learn landscape values such as size, texture, color, and flowering and fruiting seasons. Review trees, shrubs, groundcovers, annuals, and perennials suitable for this region. $395/$435

6 Saturdays, 9/25–11/6 (no class 10/9), 10 am–12:40 pm
Valerie D’Antonio | NYBG | 221HRT358F

6 Saturdays, 10/2–11/13 (no class 10/9), 10 am
Timothy Nolan | NYBG & Online | 222HRT358ABL

6 Tuesdays, 10/5–11/9, 10 am
Jennifer Cappello-Ruggiero | NYBG & Online 222HRT358BBL

6 Saturdays, 3/26–4/30, 10 am–12:40 pm
Valerie D’Antonio | NYBG | 223HRT358C

INVASIVE WEED IDENTIFICATION & MANAGEMENT

Students will be introduced to the topics of invasion biology and weed management and their related terminology. Approximately 60 invasive or weed species common throughout the northeast region of the United States will be presented, with a focus on woody species. Management techniques and management plans will also be discussed. Field walks will be given on NYBG grounds. Prerequisite: Intro to Plant Science $355/$395

4 Saturdays, 10/2–10/30 (no class 10/9), 10:30 am–1:30 pm
Erica DeLuca | NYBG | 222HRT482A

† The start time for all sections is as listed; end times vary. See website for the full schedule.

$ Exam on last class date.
PRUNING PRINCIPLES AND PRACTICES
TRACKS 2 & 3

Through classwork and hands-on practice, develop pruning tools and techniques to help shrubs, conifers, broadleaves, evergreens, and deciduous plants thrive. Explore how woody plant structure and physiology influence pruning. Learn how to create and maintain hedges and explore authentic pollarding techniques. Come dressed for fieldwork, and bring bypass pruners if you have them.

Prerequisite: Intro to Plant Science | $385/$425

6 Thursdays, 10/7–11/18 (no class 10/21), 10 am–1 pm
Bill Logan | NYBG | 223HRT321A

6 Tuesdays, 11/2–12/14, 10 am–1 pm
Bill Logan | NYBG | 223HRT321B

NYBG & Online

Mark Kokinchak

4 Mondays, 10/18–11/8, 6:15–8:30 pm
NYBG | 222HRT481ABL

3 Saturdays, 10/16–10/30, 10 am–1 pm
Jessica Zavaglia | Online | 222LAN457A

Bill Logan

6 Fridays, 1/14–2/18, 10 am–1 pm

6 Tuesdays, 2/24–3/31, 10:15 am–12:15 pm

6 Thursdays, 10/7–11/18 (no class 10/21), 10 am–1 pm
Bill Logan | NYBG | 223HRT321A

6 Tuesdays, 11/2–12/14, 10 am–1 pm
Bill Logan | NYBG | 223HRT321B

6 Fridays, 1/14–2/18, 10 am–1 pm
Bill Logan | NYBG | 223HRT321C

6 Saturdays, 1/22–3/5, (no class 2/19), 1–4 pm
Samuel Bishop | NYBG | 223HRT321D

6 Tuesdays, 2/15–3/22, 10 am–1 pm
Bill Logan | NYBG | 223HRT321E

BUSINESS PRACTICES FOR THE LANDSCAPE PROFESSIONAL TRACK 2

Explore how to effectively organize and operate a small landscape business that will sustain itself and earn a profit. We will discuss how to attract new clients, position oneself in a crowded market and choose the right type of business model. Gain experience in preparing proposals and contracts, pricing services and materials, and creating budgets. You will walk away from this class with a basic plan to guide you in creating a successful business. | $295/$305

6 Fridays, 10/15–11/19, 10:15 am–12:15 pm
Jessica Zavaglia | Online | 222LAN457AO

6 Thursdays, 2/24–3/31, 10:15 am–12:15 pm
Jessica Zavaglia | Online | 223LAN457BO

DISEASE IDENTIFICATION & MANAGEMENT TRACKS 1, 2, & 3

Learn common diseases of woody and herbaceous ornamentals and turfgrass, and the cultural, biological, and least-toxic strategies for their control.

Prerequisite: Intro to Plant Science | $475/$495

3 Saturdays, 10/16–10/30, 10 am–1 pm, and 4 Mondays, 10/18–11/8, 6:15–8:30 pm
Mark Kokinchak | NYBG & Online | 222HRT481ABL

SUSTAINABLE GARDEN CARE TRACK 3

Explore how to create a healthy garden while supporting biodiversity and conserving resources. We’ll discuss ways to minimize water usage, effectively handle stormwater, create a healthy soil food web, and use non-toxic alternatives to maintain optimal plant health.

Prerequisite: Intro to Plant Science and Soil Science I | $195/$215

4 Saturdays, 10/30–11/20, 10 am–12 pm
Steve Conaway | NYBG | 222HRT395A

4 Tuesdays, 2/8–3/1, 6–8 pm
Steve Conaway | Online | 223HRT395BO

TREE MANAGEMENT TRACKS 2 & 3

Develop a holistic approach to keep trees healthy and vigorous. Topics include planting and transplanting, pruning, fertilization, root system management, common problems, tree defenses, and lightning protection.

Prerequisites: Pruning Principles and Practices and Soil Science II | $335/$369

7 Wednesdays, 1/5–2/16, & Monday, 1/10, 3–5 pm
Trevor Hall | NYBG | 222HRT422S

CHAINSAWS: USE, SAFETY, AND MAINTENANCE TRACK 3

Whether you are a budding arborist or weekend woodcutter, knowing how to use your chainsaw safely and maintain it properly are keys to success. This lecture-demonstration course by an ISA-certified arborist teaches you the basics of chainsaw use and care, sharpening, and bar tensioning.

Prerequisites: Intro to Plant Science and Soil Science I | $145/$159

3 Saturdays, 1/8–1/29 (no class 1/15), 10 am–12 pm
Julian Picciano | Online | 223HRT308O

WINTER TREE IDENTIFICATION TRACK 3

Learn basic winter tree identification using dormant-season characteristics of deciduous plants as well as conifers. Dress for the weather.

Prerequisite: Intro to Plant Science | $295/$325

5 Tuesdays, 1/11–2/8, 1–3 pm
Bill Logan | NYBG | 223HRT440

BROADLEAVED EVERGREENS TRACK 4

Become familiar with the cultural requirements, identifying features, and uses of native and non-native broadleaved evergreens, and incorporate them into both naturalistic and formal landscape settings. Major plant groups studied include Ilex, Rhododendron, Buxus, and evergreen groundcovers.

Prerequisite: Intro to Plant Science | $219/$239

5 Fridays, 2/25–3/25 | 10:30 am–12:45 pm
Vincent Simeone | NYBG | 223HRT332

ANNUAL AND PERENNIAL GARDEN MAINTENANCE TRACK 4

Manage annual and perennial gardens with a variety of practices: soil and weed management, watering, pest identification and control, and seasonal clean-up. Develop a management plan for a small perennial garden.

Prerequisites: Soil Science I and Plants for Landscaping or Late Season Perennials & Grasses | $195/$215

4 Wednesdays, 1/26–2/16; 10 am–12 pm
Erika Hanson Moore | Online | 223HRT344O

Illustration: Tropical Foliage in the Conservatory, ©Wendy Hollender, NYBG Instructor

Plants That Changed America

Horticulturist Wambui Ippolito shares how immigrants from all over the world have brought beloved plants with them to the United States—from Spaniards and Hungarians who introduced grapes for viticulture to enslaved Africans whose rice seeds and agricultural expertise were appropriated and exploited on what became vast Southern rice plantations. She discusses the importance of horticulturists, landscape designers, and gardeners viewing themselves, their work, and their plants as migrants moving across the space and time of the evolving American landscape.

A graduate of NYBG’s School of Professional Horticulture, Wambui Ippolito works as a horticulturist for Jane Gil Gardens where she manages a roster of private clients that includes business, media, music, and sports moguls. She is also the co-founder of BIPOC Hort, a network of plant-related professionals from African American, Asian, Caribbean, Latin American, and African communities.

Friday, 12/10, 11–12:30 pm | Wambui Ippolito | NYBG | 222HRT818
**The Indigenous Roots of Sustainable Forestry**

Building upon a millennia-old tradition of environmental stewardship, Indigenous peoples have developed innovative systems to manage the forests that remain under their sovereign control in ways that support commercial enterprise, protect cultural use, and promote ecosystem health. Increasingly, federal and state forest managers are forging partnerships with Indigenous communities to devise ways to successfully maintain forest resilience, species diversity, and culturally important landscapes in a rapidly changing climate.

Join Professor Michael Dockry as he discusses his research on the Indigenous origins of sustainable forestry in the U.S., tribal innovations in sustainable forest management, and building partnerships with tribes to support resilient ecosystems and support tribal sovereignty.

**Michael Dockry, Ph.D.,** is a professor of Tribal Natural Resource Management at the University of Minnesota and a member of the Citizen Potawatomi Nation. His academic focus is on incorporating Indigenous knowledge into forestry and natural resource management, supporting tribal sovereignty, and addressing tribal environmental issues.

Wednesday, 2/9, 11 am–12 pm  
Online  |  223HRT812O  |  $15/$18

---

**BASIC DESIGN AND INSTALLATION OF IRRIGATION SYSTEMS**  TRACK 2  
Learn how to design, install, and maintain conventional, specialty drip, and micro-drip irrigation systems. Drip systems are useful for rooftop and terrace gardens, planters, raised beds, and many landscape and nursery production systems. We will cover basic hydraulics and review the best irrigation products. Learn to troubleshoot, practice visual maintenance, and identify service requirements.  
Design books supplied.  |  $295/$329

Thursday & Friday, 1/27 & 1/28, 10 am–4:30 pm  
Steve Dobossy  |  NYBG  |  223HRT323

---

**CONIFERS**  TRACK 3  
Learn to identify, classify, and use the best regional native and non-native conifers for naturalistic and formal landscape designs.  |  Prerequisite: Intro to Plant Science  |  $295/$325

7 Thursdays, 2/3–3/17, 10 am–12 pm  
Michael Ruggiero  |  NYBG  |  223HRT333

---

**PLANT PROPAGATION II**  TRACK 1  
Learn to work with plants that are difficult to propagate by seed or cuttings. Subjects include advanced seed propagation and techniques of grafting, budding, and micro-propagation. Learn tissue culture at NYBG’s Pfizer Laboratory, and tour a retail nursery for a hands-on grafting project.  |  Prerequisite: Plant Propagation I  |  $495/$539

4 Thursdays, 2/3–2/24, 5–8 pm; Plus an all-day field trip TBA, 7:30 am–4 pm  
Mobee Weinstein  |  NYBG  |  223HRT412

---

**SUSTAINABLE GARDEN DESIGN**  TRACK 4  
This studio-oriented course covers basic site analysis, planting plans, and color schemes (analogous or sequential, complementary, and monochrome). Presentations, discussions, and design projects combine practical information with theoretical garden design.  |  Prerequisites: Graphics I, Annuals, Spring Perennials, and Late Season Perennials & Grasses  |  $485/$535

7 Mondays, 2/7–3/28 (no class 2/21), 6–8:50 pm  
Marie Salembier  |  Online  |  223HRT551O

---

**LANDSCAPE PLANTS: BULBS**  TRACK 4  
This course is designed for horticulturists, gardeners, or designers who want to learn to identify and classify familiar and unusual spring-, summer-, and autumn-flowering bulbs. We will also focus on understanding their biology.  |  Prerequisite: Intro to Plant Science  |  $295/$325

5 Wednesdays, 3/9–4/6, 10 am †  
Marta McDowell  |  NYBG  |  223HRT342

7 Thursdays, 3/10–4/28 (no class 4/14), 4:30–6:30 pm  
Michael Hagen  |  NYBG  |  223HRT342S

---

**URBAN TREE CARE**  TRACK 3  
Soil compaction, construction damage, and land development practices can lead to tree decline and early tree mortality. Examine the biology of trees, and learn how they respond to changes in the urban environment. Explore techniques for assessing and preserving tree health and vigor, as well as new diagnostic tools and methods for tree and site analysis in developed urban sites.  |  Prerequisite: Intro to Plant Science  |  $295/$325

5 Saturdays, 3/12–4/9, 11 am–2 pm  
Julian Picciano  |  NYBG  |  223HRT426

---

**MATHEMATICS FOR HORTICULTURISTS**  TRACK 2  
This course is designed for horticulturists who are responsible for maintaining outdoor landscapes. We will cover how to calculate area to help estimate plant and soil needs, apply rates for fertilizers, and calculate amounts of soil amendments.  |  $149/$165

3 Mondays, 3/14–3/28, 5–7 pm  
Mobee Weinstein  |  Online  |  223HRT356O

---

**LANDSCAPE MANAGEMENT**  TRACK 2  
Examine sustainable techniques for managing and maintaining commercial and residential landscapes. Develop programs that reduce adverse effects on the environment, including alternative approaches to conventional lawn management.  |  Prerequisites: Intro to Plant Science and Soil Science II  |  $579/$635

9 Thursdays, 3/17–5/12, 4:30–7:30 pm  
David Laswell  |  NYBG  |  223HRT443

---

**CERTIFICATION EXAM**

**30-HOUR PREPARATION FOR PESTICIDE APPLICATOR CERTIFICATION EXAMINATION**  
Prepare for the Core (Basic) and Category 3 (Ornamentals and Turf) exams New York State Department of Environmental Conservation requires of all pesticide applicators. We’ll cover handling, use, storage, and application of pesticides; safety and environmental considerations; and insects and diseases. You must purchase several manuals, and must have either three years of work experience or at least 30 hours of class instruction to be eligible to take these exams. DEC CEUs available.  |  $715/$785

4 Tuesdays, 1/11–2/8 and 6 Thursdays, 1/6–2/10 (no class 1/25), 4:15 †  
Shawn Spencer  |  NYBG  |  223HRT357S

† The start time for all sections is as listed; end times vary.  
See website for the full schedule.

Exam on last class date.
If you have a passion for plants and helping people, then pursue horticultural therapy and learn how to bring people and the natural environment together for healing purposes. Acquire the therapeutic skills and horticultural techniques needed to serve a broad population of people in need. Enroll in a single class or pursue a Horticultural Therapy Certificate.

THE CERTIFICATE PROGRAM

Respected nationwide, the NYBG Horticultural Therapy Certificate Program helps students begin or complement their careers through an in-depth exploration of skills and innovative methods that use plants and the growing environment to heal and rehabilitate people. Practicing horticultural therapists train students to design, implement, and operate programs for individuals and groups across a variety of health care settings and human services programs.

Upon completion of the program, students will:

• Understand the characteristics and etiologies of the various populations served by horticultural therapy.

• Demonstrate skills in goal setting, activity planning, risk management, evaluation methods, plant selection, and accessible design.

• Prepare proposals to deliver horticultural therapy programs in various venues, including public settings, not-for-profit organizations, private companies, and independent contracting services.
CERTIFICATE REQUIREMENTS

Certificate students must complete 189 course hours, 8 site visit hours, and a 100-hour internship. After completing a minimum of six Horticultural Therapy courses, students should contact the Program Coordinator to arrange their internship.

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Horticultural Therapy</td>
<td>THR 301</td>
<td>15</td>
<td>32</td>
</tr>
<tr>
<td>Horticultural Therapy for Youth with Disabilities</td>
<td>THR 402</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>Horticultural Therapy for Physical Rehabilitation</td>
<td>THR 403</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>Horticultural Therapy for Older Adults</td>
<td>THR 401</td>
<td>15</td>
<td>32</td>
</tr>
<tr>
<td>Fundamentals of Gardening</td>
<td>GAR 301</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Horticultural Therapy in Behavioral Health Settings</td>
<td>THR 404</td>
<td>15</td>
<td>32</td>
</tr>
<tr>
<td>Horticultural Therapy Methods and Materials</td>
<td>THR 406</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>Activities Analysis for Horticultural Therapy</td>
<td>THR 407</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>Introduction to Plant Science</td>
<td>HRT 300</td>
<td>16</td>
<td>27</td>
</tr>
<tr>
<td>Plant Propagation I: Basic Principles</td>
<td>HRT 411</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>Garden Design for Special Populations</td>
<td>THR 408</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>Horticultural Therapy Program Management</td>
<td>THR 409</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>Horticultural Therapy Site Visits (see note below)</td>
<td></td>
<td>8</td>
<td>33</td>
</tr>
<tr>
<td>TOTAL REQUIRED HOURS</td>
<td></td>
<td>189</td>
<td></td>
</tr>
</tbody>
</table>

Site Visits

<table>
<thead>
<tr>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 546</td>
<td>4</td>
<td>33</td>
</tr>
<tr>
<td>THR 567</td>
<td>4</td>
<td>33</td>
</tr>
</tbody>
</table>

During the pandemic, we will offer limited trips to observe working programs at hospitals and other institutions. Site visits remain a Certificate requirement, and we plan to resume scheduling more of them as soon as it is safe to do so.

**Courses offered in the Spring–Summer Catalog

_courses with a prerequisite before you can register

Phyllis D’Amico, HTM, Program Coordinator
Anne Meore, HTR, Program Advisor

QUESTIONS? CONTACT PROGRAM COORDINATOR

Phyllis D’Amico, HTM, AT THRCOORDINATOR@NYBG.ORG

COLLEGE CREDIT RECOMMENDATION

Through November 2022, National College Credit Recommendation Service (NCCRS) will recognize the nine Horticultural Therapy courses to be the equivalent of college level instruction. In order to apply for one college credit hour per course, a passing grade of C or better is required. NYBG recommends you pass all 9 courses before applying for college credit, at which time you will pay a $45 administrative fee to NYBG and a $52 application & transcript fee to Excelsior. For more info, call the Registration Office at 718.817.8720.

The nine Horticultural Therapy courses are also accredited by the American Horticultural Therapy Association (AHTA) through November 2022, and can be applied toward voluntary Professional Registration through the AHTA. See p. 43 for more information.

INTRODUCTION TO HORTICULTURAL THERAPY

Explore the plant-people relationships and scientific research that are the foundations of horticultural therapy. Review current hort therapy programs, and the cognitive, physical, psychological, and social benefits of plants and plant-related activities for various populations. Build disability awareness and therapeutic skills. | $395/$445

**Courses offered in the Spring–Summer Catalog

<table>
<thead>
<tr>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>THR 301</td>
<td>15</td>
<td>32</td>
</tr>
</tbody>
</table>

3 Tuesdays, 10/5–10/26 (no class 10/19), 4–6:30 pm & 2 Saturdays, 10/23 &10/30, 9 am †

Anne Meore, HTR | NYBG & Online | 222THR301ABL

3 Saturdays, 1/8–1/29 (no class 1/15), 9–11:30 am & 3 Tuesdays, 1/11–1/25, 4–6:30 pm

Anne Meore, HTR | Online | 223THR301BO

3 Saturdays, 2/12–3/5 (no class 2/19), 9–11:30 am, & 3 Saturdays, 2/15–3/1, 4–6:30 pm

Anne Meore, HTR | Online | 223THR301CO

HORTICULTURAL THERAPY FOR OLDER ADULTS

Older adults present an increasing need for therapeutic services. Learn the physical, sensory, cognitive, psychological, and social aspects of aging, and how horticulture can be an important component of geriatric care. | $419/$459

3 Tuesdays, 10/12–10/26, 6:30–9 pm &
3 Saturdays, 10/16–10/30, 10 am–12:30 pm

Kathy Brechner, HTR | Online | 222THR401AO

3 Wednesdays, 5/4–5/18, 6–8:30 pm &
3 Saturdays, 5/7–5/21, 9:30 am–12 pm

Kathy Brechner, HTR | Online | 224THR401O

HORTICULTURAL THERAPY IN BEHAVIORAL HEALTH SETTINGS

Horticultural therapy is practiced in a multitude of behavioral health settings, including hospitals, day treatment programs, group homes, and in private practice. Learn the diagnostic criteria for major psychiatric conditions, including anxiety, mood, psychotic, cognitive, and substance abuse disorders. Review actual case studies and create treatment plans utilizing horticulture activities for specific needs. | $419/$459

2 Wednesdays, 10/13 & 10/20, 6:30–9 pm &
3 Sundays, 10/17–10/31, 10 am †

Hilda Krus, HTR | NYBG & Online | 222THR404ABL

2 Saturdays, 1/8 & 1/29, 10 am † &
3 Tuesdays, 1/11–1/25, 6:30–9 pm

Hilda Krus, HTR | NYBG & Online | 223THR404BBL
HORTICULTURAL THERAPY FOR YOUTH WITH DISABILITIES
Gain insights into the causes and characteristics of developmental, sensory, physical, behavioral, and learning disabilities in children and adolescents. Learn to implement horticultural therapies that meet a range of goals in programs for preschool through high school. Explore brain-based research, and activities that can improve perceptual development and the learning process. Prerequisite: Introduction to Horticultural Therapy | $419/$459
3 Wednesdays, 11/3–11/17, 6–8:30 pm & 3 Saturdays, 11/6–11/20, 10 am
Phyllis D’Amico, HTM | NYBG & Online | 222THR402A
3 Wednesdays, 9/3–9/23, 6–8:30 pm & 2 Saturdays 3/12 & 3/26, 10 am
Phyllis D’Amico, HTM | NYBG & Online | 223THR402BBL

HORTICULTURAL THERAPY PROGRAM MANAGEMENT
Learn how to design and implement a horticultural therapy program in the private or public sector. Gain skills in developing program proposals, writing protocols, establishing evaluation methods and record-keeping policies, and managing staff and volunteers. Topics in business practices will include budget development and management, legal aspects of business establishment, and fundraising. Prerequisites: Exceptional Youth, Older Adults, Physical Rehab, Activities Analysis and Behavioral Health Settings | $419/$459
4 Tuesdays, 11/2–11/30 (no class 11/23), 6:30–9 pm & 2 Saturdays, 11/6 & 11/13, 10 am–12:30 pm
Pat Czarnecki, HTR | Online | 222THR409O
4 Tuesdays, 5/3–5/24, 6:30–9 pm & 2 Saturdays, 5/7 & 5/21, 10 am–12:30 pm
Pat Czarnecki, HTR | Online | 224THR409O

HORTICULTURAL THERAPY FOR PHYSICAL REHABILITATION
Explore the team treatment process and the various conditions treated in a clinical setting. Learn about etiology, diagnosis, and psychosocial effects, and the horticultural therapist’s role in assessing, documenting, and developing treatment goals and objectives. Review case studies and develop treatment plans. Prerequisite: Introduction to Horticultural Therapy | $419/$459
2 Saturdays, 12/4 & 12/18, 10 am–3 pm & 2 Tuesdays, 12/7 & 12/14, 6:30–9 pm
Matthew Wichrowski, HTR | NYBG & Online | 222THR403ABL
2 Tuesdays, 2/1 & 2/8, 6:30–9 pm & 2 Saturdays, 2/12 & 2/26, 10 am–3 pm
Matthew Wichrowski, HTR | NYBG & Online | 223THR403BBL

GARDEN DESIGN FOR SPECIAL POPULATIONS
Learn the latest research in therapeutic garden design, common design principles, and the issues and accommodations needed to create, renovate, and evaluate effective gardens for groups with special needs. Prerequisite: Horticultural Therapy for Physical Rehabilitation | $419/$459
6 Wednesdays, 1/12–2/16, 6–8:30 pm
Nancy Minich, HTR, RLA | Online | 223THR408AQ
4 Wednesdays, 3/2–3/30 (no class 3/23), 6–8:30 pm & 1 Saturday, 3/26, 10 am–3:30 pm
Nancy Minich, HTR, RLA | NYBG & Online | 223THR408BBL

ACTIVITIES ANALYSIS FOR HORTICULTURAL THERAPY
Learn how to structure horticultural therapy activities so a client’s progress can be clearly measured and assessed. You will develop a needs assessment and activity plan, write specific goals with measurable objectives, and practice leadership skills needed to work with groups and individuals. Prerequisite: Horticultural Therapy for Physical Rehabilitation | $419/$459
3 Tuesdays, 2/1–2/15, 6:30–9 pm & 3 Saturdays, 2/5–2/26 (no class 2/19), 10 am–12:30 pm
Abby Jaroslow, HTR | Online | 223THR407O

HORTICULTURAL THERAPY METHODS AND MATERIALS
Evaluate tools, equipment, structures, and techniques used by participants in horticultural therapy activities. Design and construct adaptive tools and assistive devices through problem-solving activities. Expand your plant-selecting skills for specific therapeutic programming needs as you explore the collections and gardens at NYBG. Learn preventive approaches to safety in all horticultural therapy settings. Prerequisite: Horticultural Therapy for Physical Rehabilitation | $444/$484
3 Saturdays, 4/9–4/30 (no class 4/16), 10 am–1:30 pm & 2 Wednesdays, 4/13 & 4/27, 6–8:15 pm
Phyllis D’Amico, HTM | NYBG & Online | 224THR406BL

Site Visits
Tour some of the organizations practicing Horticultural Therapy in the New York area. Get a close-up look on their day-to-day practices.

GOOD SAMARITAN REGIONAL MEDICAL CENTER:
THE GARDEN OF HOPE
With its 32’ x 40’ growing space for edible and sensory plantings, The Garden of Hope offers horticultural therapy opportunities to a wide array of special needs populations. The garden is equipped with rolling planting tables, traditional raised beds, and accessibility features for those with mobility challenges. Explore and engage in therapeutic techniques specific to programming in outdoor spaces. Prerequisite: Introduction to Horticultural Therapy | $135/$149
Friday, 9/24, 9:30 am–2:30 pm | Anne Meore, HTR | Off site | 221THR546

NEW!
KINGSBRIDGE HEIGHTS COMMUNITY CENTER
With multiple gardens, beehives, and an outdoor classroom, Kingsbridge Heights Community Center provides therapeutic and educational horticulture for people of all ages as part of its mission to empower Bronx residents and advance the well-being of this vibrant community. Tour KHCC’s diverse campus and engage in an activity alongside participants of the Respite program, serving youth with special needs. Prerequisite: Introduction to Horticultural Therapy | $135/$149
Thursday, 10/14, 2–6 pm | Gerry Sherman | Off site | 222THR567A
Thursday, 2/17, 2–6 pm | Gerry Sherman | Off site | 223THR567B

† The start time for all sections is as listed; end times vary. See website for the full schedule.

Illustration: Autumnal Frieze (detail), ©Pat Giancontieri, 2021 Graduate
Landscape Design

The need to develop, preserve, and protect our open spaces and environmental and cultural resources has never been greater. NYBG’s engaging, career-oriented program gives you a solid, plant-focused foundation.

Take a single class for pleasure or pursue a professional Certificate in Landscape Design.

THE CERTIFICATE PROGRAM

Whether you’re changing careers or taking yours to the next level, the NYBG Landscape Design Certificate distinguishes your portfolio and showcases your development as a creative professional. And that puts you ahead—with colleagues, employers, and clients. Outstanding instructors who are working professionals guide you through a comprehensive program, where you will:

• Analyze existing landscapes, identify site-specific problems, and develop design solutions.

• Prepare planting plans that are practical, sustainable, and aesthetically pleasing for a variety of projects.

• Demonstrate skills associated with site engineering practices, principles, and techniques.

• Develop strategies for professional success using business skills in preparing proposals, pricing, purchasing, and more.

“I am grateful to NYBG’s Certificate program for teaching us to design gardens that reflect our clients’ perspectives, interact with the broader ecosystem, and maintain their beauty through the seasons while preserving the past in the character of the soil and the geology of the land.”

— MARTHA ROBINSON, 2020 Graduate
## CERTIFICATE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TIER 1– Introductory Classes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscape Design History</td>
<td>LAN 301</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>Graphics I</td>
<td>LAN 311</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>Landscape Measurement</td>
<td>LAN 340</td>
<td>P</td>
<td>12</td>
</tr>
<tr>
<td>Landscape Plants: Fall Trees and Shrubs</td>
<td>HRT 331</td>
<td>P</td>
<td>12</td>
</tr>
<tr>
<td>Landscape Plants: Spring Trees and Shrubs**</td>
<td>HRT 334</td>
<td>P</td>
<td>12</td>
</tr>
<tr>
<td>Plants for Landscaping</td>
<td>HRT 358</td>
<td>P</td>
<td>16</td>
</tr>
<tr>
<td><strong>TIER 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscape Design I: Site Analysis and Schematic Design</td>
<td>LAN 401</td>
<td>P</td>
<td>24</td>
</tr>
<tr>
<td>Landscape Design II: Design Development</td>
<td>LAN 402</td>
<td>P</td>
<td>24</td>
</tr>
<tr>
<td>Estimating</td>
<td>LAN 380</td>
<td>P</td>
<td>9</td>
</tr>
<tr>
<td>Graphics II</td>
<td>LAN 427</td>
<td>P</td>
<td>24</td>
</tr>
<tr>
<td>Site Materials and Details</td>
<td>LAN 422</td>
<td>P</td>
<td>24</td>
</tr>
<tr>
<td><strong>TIER 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grading &amp; Drainage</td>
<td>LAN 421</td>
<td>P</td>
<td>24</td>
</tr>
<tr>
<td>Graphics III**</td>
<td>LAN 417</td>
<td>P</td>
<td>24</td>
</tr>
<tr>
<td>Landscape Design III: Planting Design</td>
<td>LAN 403</td>
<td>P</td>
<td>24</td>
</tr>
<tr>
<td>Business Practices for Landscape Professional</td>
<td>LAN 457</td>
<td>P</td>
<td>12</td>
</tr>
<tr>
<td>Landscape Design IV: Design and Construction</td>
<td>LAN 520</td>
<td>P</td>
<td>33</td>
</tr>
<tr>
<td>Portfolio and Presentation Skills</td>
<td>LAN 555</td>
<td>P</td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL REQUIRED HOURS</strong></td>
<td></td>
<td></td>
<td>337</td>
</tr>
</tbody>
</table>

*Course hours do not include exam hours
**Courses offered in the Spring–Summer Catalog
Courses with a prerequisite before you can register

For professional organizations, see p. 43.

**QUESTIONS? CONTACT PROGRAM COORDINATOR**
SUSAN COHEN AT Lancoordinator@NYBG.ORG

---

## LANDSCAPE TECH

### INTRO TO PHOTOSHOP FOR LANDSCAPE DESIGNERS
Now more than ever, clients expect to see beautiful digital plans. Learn the basics of how to scan and enhance hand drawings. Gain familiarity with the tools to create digitally rendered plans, sections, perspectives, and collages. Basic computer skills are a must. Please note: participants must have access to Adobe Photoshop. | $295/$325

6 Tuesdays, 9/21–10/26, 6:30–8:30 pm
Adam Molinski | Online | 221LAN444

6 Wednesdays, 1/12–2/16, 6:30–8:30 pm
Jonathon Matz | Online | 223LAN444AO

### CONCEPTS: DIGITAL SKETCHING
Explore the Concepts app to create a 2-D landscape plan on your iPad. Learn to sketch directly on the screen, import and modify existing assets, produce a precise drawing to scale, and export your plan into hi-resolution formats that can be used in AutoCAD, Photoshop, or Adobe Illustrator. Bring your iPad to class. | $195/$229

4 Saturdays 2/5–3/5 (no class 2/19), 10 am–1 pm
Cat Morris | NYBG | 223LAN439

### GARDEN DESIGN HISTORY WALK
Many important designers have shaped NYBG grounds throughout the years, including Calvert Vaux, Beatrix Farrand, Piet Oudolf, and Lynden B. Miller. Stroll the grounds with award-winning author Marta McDowell, who will discuss how the Garden’s plantings, pathways, ornaments, and structures illustrate the interplay of formal and informal styles that draw from many traditions across time. | $75/$85

Thursday, 10/14, 9:30–11:30 am | Marta McDowell | NYBG | 222LAN267

### SKETCHUP
Build and expand your graphic presentation skills to create professional presentations for clients with Trimble SketchUp, a 3D sketching software program. Laptop computers (PC or Mac) with SketchUp are required. | Prerequisite: Graphics II or Dynascape | $595/$655

8 Wednesdays, 10/6–12/1 (no class 11/24), 6:15–9:15 pm
Jonathon Matz | Online | 222LAN4170

---

**STUDENT INFORMATION**
In addition to the course fees listed, students should anticipate spending approximately $700 on class materials while completing their Certificate. Students should expect that homework will be assigned in most courses.
INTRO TO LANDSCAPE DESIGN
Gain an introduction to the terminology, concepts, and basic principles of landscape design through lectures and simple two-dimensional exercises. This course is recommended for students with little or no background in design who are considering a Certificate. | $185/$205

4 Tuesdays, 11/2–11/23, 6:15–8:15 pm
Kimberly Tryba | Online | 222LAN100AO

3 Saturdays, 11/6–11/20, 10 am–1 pm
Michael Troy Brown | Manhattan | 222LAN100B

4 Saturdays, 1/8–2/5 (no class 1/15), 10 am–12 pm
Sheri Forster | Online | 223LAN100CO

3 Saturdays, 2/26–3/19 (no class 3/12), 10 am–1 pm
Michael Troy Brown | Manhattan | 223LAN100D

NEW! LEARNING DESIGN BY EXAMPLE
Learn the dos and don’ts of garden design with expert landscape designer Jan Johnsen. She’ll take you through the right ways to design an outdoor space by sharing illustrative examples of what not to do. This approach will help you avoid the mistakes covered and set you on a successful path! Garden design techniques that will be discussed include creating a setting, proper width of walks, consider the drop off, edging a garden bed, how large should an outdoor terrace be, and more. | $95/$105

Saturday, 12/4, 10 am–2:30 pm
Jan Johnsen | NYBG | 223LAN145

LIGHTING DESIGN WORKSHOP
When the sun goes down, the art of landscape lighting can bring a painterly or even sculptural transformation to your design. This course explores the art of landscape lighting from selection and placement to color and composition. Learn the technical aspects of LED and low-voltage lights and how to create a professional-quality lighting plan. $229/$249

2 Mondays, 1/24 & 1/31, 10 am–2:30 pm
Gary Novasel | NYBG | 223LAN158

NATURALISTIC LANDSCAPE DESIGN
Conventional structured landscapes are giving way to looser, more naturalistic designs based on the existing landscape’s particular potential. Using images of his own six-acre garden, which—like horticulture itself—strikes a balance between art and science, Duncan Brine, a principal landscape designer at Garden Large, presents an approach that elicits responses from the site rather than imitating or imposing a traditional concept or style. | $59/$65

Friday, 2/4, 10 am–12 pm
Duncan Brine | NYBG | 223LAN226

NEW! MUST-HAVE TIPS FOR GARDEN DESIGNERS
Tap into a professional designer’s mind! Jan Johnsen’s approach to co-creating with nature will have you saying, “I can do that!” Learn how to properly determine your pace, measure and lay out certain shapes and patterns, and what tools are absolutely needed when designing a garden space. Whether you are an experienced gardener or a landscaping novice, you’ll walk away from this hands-on class full of new and useful tips to put into practice on your next project. | $95/$105

Saturday, 2/12, 10 am–2:30 pm
Jan Johnsen | NYBG | 223LAN164

LANDSCAPE DESIGN TIPS: LEARNING FROM BEFORE AND AFTER
Using illustrative before and after photos of various projects she has executed throughout her long career, landscape designer Jan Johnsen shares 25 specific tips to enhance your garden. Techniques include “Lure of the Sheltered Corner”, “The Principle of Three Depths”, “Raising the Canopy”, and many more. Students will be given a handout listing all tips discussed in class. | $59/$65

Wednesday, 3/30, 10 am–12 pm
Jan Johnsen | NYBG | 223LAN169

CERTIFICATE CLASSES
Open to Non-Certificate students

LANDSCAPE DESIGN HISTORY
This course is also required for the Horticulture Certificate TRACK 4.

Explore theories, traditions, and principles that have shaped the design of landscapes from antiquity to the present, through visual presentations, assigned readings, projects, and classroom discussion. | $595/$655 Certificate Requirement

8 Fridays, 9/24–11/12, 10:30 am–1:30 pm
Caitlin Merritt | Online | 221LAN301EO

8 Wednesdays, 10/13–12/8 (no class 11/24), 10 am–1 pm
Caitlin Merritt | Online | 222LAN301AO

9 Tuesdays, 1/11–3/8, 6:15–9:15 pm
Mark Bunnell, RLA | Online | 223LAN301BO

9 Mondays, 3/21–5/16, 6:15–9:15 pm
Mark Bunnell, RLA | Online | 223LAN301DO

GRAPHICS I: HAND RENDERING
This course is also required for the Horticulture Certificate TRACK 4.

Graphics are essential in developing and communicating your ideas. Practice various graphic techniques on a range of materials and equipment and learn how to organize and render landscape plans on paper for optimal presentation to clients. Homework required. | $595/$655 Certificate Requirement

8 Fridays, 9/17–11/5, 10 am–1 pm
Elizabeth Poccia | NYBG | 221LAN311E

8 Tuesdays, 10/12–12/7 (no class on 11/23), 6–9 pm
Sara Reinstein | Manhattan | 222LAN311A

8 Mondays, 1/10–3/14 (no class 1/17 & 2/21), 6–9 pm
Elizabeth Poccia | Online | 223LAN311BO

8 Fridays, 1/21–3/11, 10 am–1 pm
Elizabeth Poccia | NYBG | 223LAN311C

Exam on last class date.

Illustration: Cabbage Palm, Sabal palmetto, ©Elisa Baldwin
 LANDSCAPE MEASUREMENT
Precise field measurement is the crucial first step in landscape design. Learn how to properly use automatic levels, tapes, and sophisticated survey instruments such as total-station and mapping grade GPS. Topics will include accurately measuring distances, differences in elevation, and angles. A basic understanding of geometry and trigonometry is helpful. Dress for the weather. $295/$329 Certificate Requirement

4 Saturdays, 9/18–10/9, (rain date 10/16), 10 am–1 pm
Sarah Hettinger | NYBG | 221LAN340A

 LANDSCAPE DESIGN I: SITE ANALYSIS AND SCHEMATIC DESIGN
Turning a vision into a plan is the designer’s first challenge. Analyze landscapes, formulate the requirements of a design project and then translate them into schematic design solutions. Take part in class discussions and critiques, and present projects. Extensive out-of-class design work required. Prerequisite: Landscape Design History and Graphics I | $575/$635 Certificate Requirement

8 Thursdays, 10/7–12/9, (no class 11/11 & 11/25), 6–9 pm
Damon Arrington | Online | 222LAN401AO
8 Mondays, 10/18–12/6, 10 am–1 pm
Marissa Angell | NYBG | 221LAN401A
8 Mondays, 2/7–4/4 (no class 2/21), 10 am–1 pm
Marissa Angell | NYBG | 223LAN401B

 LANDSCAPE DESIGN II: DESIGN DEVELOPMENT
Apply basic design to site-specific problems, focusing on the process of design development. Start with a concept, then progress through the schematic phase to a preliminary design solution. Examine the relationships of landscape elements and materials to the design process. Prerequisite: Landscape Design I and Graphics II | $575/$635 Certificate Requirement

8 Thursdays, 1/20–3/10, 6:15–9:15 pm
David McConnell | NYBG | 221LAN402A

 LANDSCAPE DESIGN III: PLANTING DESIGN
Through a series of design assignments, prepare a variety of planting plans that are practical, appropriate, and aesthetically satisfying. Explore the significance of site conditions as well as plant form, text, color, and ecological associations. Prerequisite: Landscape Design II, Graphics II, and Plants for Landscaping. Recommended: Fall Tree and Shrubs and Spring Trees and Shrubs $575/$635 Certificate Requirement

8 Thursdays, 9/23–11/18 (no class 11/11), 6:15 am–9:15 pm
Stacie Ellickson-Hastie | Online | 221LAN403O

 GRAPHICS II: DYNAscape
Learn the various tools and applications of this software package for landscape designers. Topics include: developing base plans from surveys, techniques for quick estimates, and utilizing the online plant database. Basic computer skills and PC laptop required. Prerequisite: Graphics I | $555/$609 (There is an additional software fee of $125. Special cancellation policy applies.) Certificate Requirement

8 Mondays, 10/18–12/6, 6–9 pm
Patrick DuChene | Online | 222LAN427AO
8 Thursdays, 1/13–3/3, 5–8 pm
Elizabeth Poccia | NYBG | 223LAN427B
8 Thursdays, 2/2–3/24, 6–9 pm
Patrick DuChene | Online | 223LAN427CO

 GRADING & DRAINAGE
Through discussion, fieldwork and homework, students will identify landforms and watersheds, calculate slopes, and manipulate contours to create garden rooms and control water flow. Learn how to communicate design ideas to contractors and evaluate the opportunities and constraints of a project site. Prerequisite: Landscape Measurement, Landscape Design I, and Graphics II | $575/$635 Certificate Requirement

8 Wednesdays, 9/22–11/10, 10 am–1 pm
Alice Eckerson | NYBG | 221LAN428

 BUSINESS PRACTICES FOR THE LANDSCAPE PROFESSIONAL
Explore how to effectively organize and operate a small landscape business that will sustain itself and earn a profit. We will discuss how to attract new clients, position oneself in a crowded market and choose the right type of business model. Gain experience in preparing proposals and contracts, pricing services and materials, and creating budgets. You will walk away from this class with a basic plan to guide you in creating a successful business. $295/$305

6 Fridays, 10/15–11/19, 10:15 am–12:15 pm
Jessica Zavaglia | Online | 222LAN457AO
6 Thursdays, 2/24–3/31, 10:15 am–12:15 pm
Jessica Zavaglia | Online | 223LAN457BO

 ESTIMATING
Learn how accurately estimating landscape materials, labor, overhead, and contingencies can help you stay profitable and compete successfully in today’s business climate. Prerequisite: Landscape Design II | $219/$239 Certificate Requirement

4 Wednesdays, 1/12–2/2, 10 am–12:15 pm
Michael Voelkel | Online | 223LAN3800

 SITE MATERIALS AND DETAILS
Learn the basic principles of constructing residential landscape features such as walks, steps, simple decks, garden structures, walls, and benches. Study landscape construction standards, techniques, and commonly used materials, and learn to draft construction details. Prerequisite: Graphics II | $575/$635 Certificate Requirement

8 Tuesdays, 1/25–3/15, 10 am–1 pm
Damon Arrington | NYBG | 223LAN422

 LANDSCAPE DESIGN IV: DESIGN AND CONSTRUCTION
Draw upon all of the skills you’ve developed in the Landscape Design program to create a residential project from start to finish, combining design with construction principles. Emphasis is on construction drawings, documents, and specifications, as well as estimating. Prerequisites: Landscape Design III, Grading, and Site Materials and Detail | $829/$909 Certificate Requirement

11 Mondays, 2/7–4/25 (no class 2/21), 6–9 pm
Bryan Cantwell & David McConnell | NYBG | 223LAN520

 PORTFOLIO AND PRESENTATION SKILLS
Create visually compelling print and digital portfolios to present to potential clients. Learn how to develop professional documentation for a variety of audiences through in-class design charrettes and individualized projects. Prerequisite: Landscape Design III | $379/$415 Certificate Requirement

7 Wednesdays, 3/9–4/20, 6:30–8:40 pm
Adam Molinski | Online | 223LAN555O
SLEEPY CAT FARM

Nestled on 13 acres in Greenwich, Connecticut, Sleepy Cat Farm represents a 25-year creative collaboration between owner Fred Landman and noted landscape architect Charles J. Stick. Together, they have fashioned a garden of surprise and intrigue and many influences—an undulating, ever-changing landscape that unfolds in a series of rooms and pavilions, pathways and pools, statuary and staircases. Join us for a fascinating conversation as Landman and Stick explore their approach to gardens and design, now beautifully captured in the new book Sleepy Cat Farm: A Gardener’s Journey.

A self-taught gardener, Fred Landman serves on the Garden Conservancy’s board of directors. Landscape architect Charles Stick is known for his classical yet contemporary designs. His eponymous firm provides conceptual design, master planning, historic renovation, and site supervision for clients ranging from large-scale estates to commercial developments.

Tuesday, 11/16, 1–2 pm | NYBG 222LAN265B

THE ART OF THE POSSIBLE: CORNELIA HAHN OBERLANDER’S LANDSCAPES

Famed landscape architect Cornelia Hahn Oberlander left an outstanding legacy of built work in Canada, the U.S., and Europe. Her imaginative designs, sustainable practices, and compelling lectures encouraged legions of professionals to follow her path. Beka Sturges, a much-honored designer in her own right, presents the work of a remarkable woman she personally knew and admired. Featured projects will include the Museum of Anthropology, Robson Square, and VanDusen Botanical Gardens Visitor Centre—all in Oberlander’s hometown of Vancouver—along with other works of exceptional influence: Northwest Territories Legislative Assembly Building in Yellowknife, and the New York Times Building Atrium in Manhattan.

A partner at Reed Hilderbrand, Beka Sturges leads the firm’s New Haven office. Her design work, both public and private, is noted for its powerful spatial, cultural, and environmental values and includes current projects at Yale University, Storm King Art Center, and Dumbarton Oaks. Sturges was the project landscape architect for the acclaimed expansion of The Clark Art Institute in Massachusetts. She teaches at the Yale School of Landscape Architecture.

Tuesday, 12/14, 1–2 pm | NYBG 222LAN265C

THE MODERN COTTAGE GARDEN

UK-based garden writer Greg Loades offers a fresh approach to garden design, fusing classic English cottage style with the new perennial movement. Using lush images of big, colorful blooms combined with striking grasses and native plants, Loades will illustrate practical insights into what The Telegraph calls his “secret technique that opens up a world of nostalgia for gardeners with small spaces.”

Greg Loades is the author of The Modern Cottage Garden, named one of 2020’s top books by Gardens Illustrated. He contributes to Kew, Landscape, Bloom, and Garden News and has served as an editor for both BBC Gardeners’ World Magazine and The English Garden.

Tuesday, 1/18, 1–2 pm | Online 223LAN265D

PLANTS AND PLACEMAKING

Blending traditional Yankee building techniques with high design, Maine native Matthew Cunningham is well-known for his plant-centric residential landscapes throughout the Northeast. His gardens feature ecologically minded planting schemes and regionally sourced reclaimed materials that evoke an authentic sense of place, while showcasing his unique ability to grasp the dynamic rhythms of everyday life.

With offices in Massachusetts and Maine, Matthew Cunningham’s firm, MCLD, has garnered awards from ASLA, the Boston Society of Landscape Architects, and APLD to name a few. His gardens have been published in magazines such as Architectural Digest, Garden Design, and New England Home. Cunningham is currently a lecturer at the Harvard Graduate School of Design. Prior to founding MCLD, he worked for Reed Hilderbrand.

Tuesday, 2/15, 1–2 pm | NYBG 223LAN265E

GARDENS WITHIN THE GARDEN

Over more than two decades, landscape architect Shavaun Towers has worked closely with NYBG staff to create many of the distinctive gardens within its 250 acres, including the Chilton Azalea Garden, Burn Lilac Collection, and Steinhardt Maple Collection. Towers will discuss how she overcame horticultural and grading challenges to brilliantly choreograph the visitor experience, while respecting both NYBG’s historical precedents and the unique character of each “garden within the Garden.”

Shavaun Towers, FASLA, is a founding partner at Towers | Golde Landscape Architects and Site Planners. Her award-winning design projects range from institutional facilities, master planning, and urban design projects, to larger residential work. Now principal of The Project Studio, she currently consults, writes, and lectures.

Tuesday, 3/15, 1–2 pm | NYBG 223LAN265F

THE BEAUTY OF THE WILD

A pioneer of “re-wilded landscapes,” Darrel Morrison revisits the people and places that have nourished his long career as a celebrated landscape architect—from designer Jens Jensen and naturalist Aldo Leopold to the prairie grasses and wildflowers of his native Midwest. Focusing on his late-career designs including NYBG’s Goldman Stone Mill landscape, the tallgrass plantings at Storm King Art Center, and Brooklyn Botanic Garden’s Native Flora Garden, Morrison shares lessons about the links among ecology, art, music, and design; the urgent need to preserve natural areas; and the importance of having fun through it all.

Darrel Morrison, FASLA, is an award-winning landscape architect and former professor and chair of the landscape architecture program at the University of Wisconsin. He served as Dean of the College of Environment and Design at the University of Georgia and co-founded Landscape Journal. He is the recipient of the 2021 Scott Garden and Horticulture Award.

Tuesday, 10/19, 1–2 pm | NYBG 222LAN265A

CEUs are available.
In our teeming metropolis, nature is all around us in diverse habitats, from the cracks in our sidewalks to our parks and our beaches.

THE CERTIFICATE PROGRAM

The NYBG Urban Naturalist Certificate Program equips you with the skills you need to become an effective environmental steward. On the Garden grounds and in select city parks, you will learn to keenly observe the natural world, create scientifically useful records of your observations, and investigate the interrelationships between species. NYBG Urban Naturalists work as environmental educators, help manage invasive species in local parks, and volunteer with our EcoFlora project to help document NYC plant species.

To receive a Certificate, you must select a natural site, and after making in-depth observations there over many months, present a survey of the plants and animals found there and a plan for how the site can be improved to provide ecological and social benefits. Guidelines are available online.

CERTIFICATE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Plant ID</td>
<td>BOT 308</td>
<td>6</td>
<td>40</td>
</tr>
<tr>
<td>Two of the four Native Flora courses:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native Flora in Autumn</td>
<td>BOT 331</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>Native Flora in Winter</td>
<td>BOT 332</td>
<td>12</td>
<td>41</td>
</tr>
<tr>
<td>Native Flora in Spring**</td>
<td>BOT 333</td>
<td>12</td>
<td>—</td>
</tr>
<tr>
<td>Native Flora in Summer**</td>
<td>BOT 334</td>
<td>12</td>
<td>—</td>
</tr>
<tr>
<td>Natural History of Birds</td>
<td>NAT 321</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>Natural History of Insects</td>
<td>NAT 322</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>Introduction to Urban Ecology</td>
<td>NAT 338</td>
<td>4</td>
<td>41</td>
</tr>
<tr>
<td>The Ecosystems of New York City</td>
<td>NAT 337</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>Urban Ecology Field Study Workshop**</td>
<td>NAT 323</td>
<td>9</td>
<td>—</td>
</tr>
<tr>
<td>Elective Credits (See current electives below)</td>
<td></td>
<td>30</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL REQUIRED HOURS</strong></td>
<td></td>
<td>105</td>
<td></td>
</tr>
</tbody>
</table>

ELECTIVES

The following Naturalist courses—along with all Botany electives listed on page 9 count toward the 30 required elective hours.

<table>
<thead>
<tr>
<th>Course</th>
<th>Code</th>
<th>Hours</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Flora: Growing Between the Cracks</td>
<td>NAT 332</td>
<td>6</td>
<td>41</td>
</tr>
<tr>
<td>Spotlight on Bird Songs</td>
<td>NAT 341</td>
<td>3</td>
<td>40</td>
</tr>
<tr>
<td>Night Callers: Bronx Bats</td>
<td>NAT 329</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>Perpetual Journaling: Draw the Details</td>
<td>NAT 356</td>
<td>4</td>
<td>41</td>
</tr>
<tr>
<td>Urban Stream Ecology</td>
<td>NAT 352</td>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td>Urban Mammals</td>
<td>NAT 326</td>
<td>6</td>
<td>41</td>
</tr>
<tr>
<td>The Fight to Preserve Native Hemlocks</td>
<td>NAT 327</td>
<td>2</td>
<td>41</td>
</tr>
</tbody>
</table>

**Courses offered in the Spring-Summer Catalog

Courses with a prerequisite before you can register
BASIC PLANT ID

This is the class for plant-lovers eager to up their game! Learn the terminology and basic botanical nomenclature that will help you recognize and describe key differences in common plants. $145/$159

3 Tuesdays, 10/5–10/19, 5:30–7:30 pm
Jennifer Cappello-Ruggiero | Online | 222BOT308AO

3 Tuesdays, 11/2–11/16, 5:30–7:30 pm
Clara Holmes | Online | 222BOT308BO

3 Tuesdays, 2/8–2/22, 5:30–7:30 pm
Clara Holmes | Online | 223BOT308CO

3 Thursdays, 3/8–3/22, 5:30–7:30 pm
Clara Holmes | Online | 223BOT308EO

NATIVE FLORA IN AUTUMN

In autumn our native Northeast flora can be spectacular, but difficult to identify. With a 10X power hand lens and a plant key, you’ll learn to identify these wildflowers, shrubs, and trees on the Garden grounds. Basic Plant ID or Plant Structure $295/$325 Certificate Requirement

5 Thursdays, 9/23–10/21 (rain date: Saturday, 10/28) 9 am †
Nancy Slowik | NYBG & Online | 221BOT331BBL

NATURAL HISTORY OF INSECTS

Study the critical and fascinating roles that insects play in maintaining healthy ecosystems and within their own complex social systems. Learn to observe and identify insects while exploring the wonder of metamorphosis and the amazing variety of defensive strategies and adaptations insects have developed to survive. $225/$245 Certificate Requirement

5 Fridays, 9/24–10/22, 10 am †
Ken Chaya | NYBG & Online | 222NAT322BL

THE ECOSYSTEMS OF NEW YORK CITY

The tri-state area contains many distinct ecosystems, including woodlands, salt marshes, meadows, and fresh water wetlands. Study the unique characteristics of local habitats and the species they support, paying close attention to interspecies relationships. We’ll spend time on Garden grounds and in Pelham Bay Park to identify and document the web of relationships found in NYC’s forests and wetland areas. Native Flora and Natural History of Birds $225/$245 Certificate Requirement

3 Sundays, 9/19 & 9/26, 10 am–12 pm & 10/3, 9 am–1 pm
Ellen Pehek | NYBG & Online | 221NAT337BL

Illustration: Barred Owl, ©Mary Christiansen, NYBG Instructor

NIGHT CALLERS: BRONX BATS

Venture onto NYBG’s grounds to locate and identify bats through their ultrasonic calls with J. Alan Clark, Ph.D., co-author of Bats in the Bronx, a recent study of five local bat species. We hope to detect several species, including Eastern Red bats and possibly Silver-Haired bats. $85/$95 Certificate Elective

Tuesday, 9/28, 6:30–8:30 pm
J. Alan Clark, Ph.D. | NYBG | 221NAT329C

SPOTLIGHT ON BIRD SONGS

Did you know that Blue Jays can mimic the cry of a Red-tailed Hawk? Train your ear to find them as well as other talented mimics, comical improvisers, brilliant songsters, and heart-throb spring soloists. The vocalizations of our native birds are many and vary widely from soft chip notes to navigational flight calls, territorial declarations, and lovely courtship serenades. $95/$105 Certificate Elective

Sunday, 10/17, 10 am–1 pm
Ken Chaya | Online | 222NAT341AO

Thursday, 10/28, 10 am–1 pm
Ken Chaya | Online | 222NAT341BO

NEW! URBAN STREAM ECOLOGY

The Bronx River, the only freshwater river in New York City, teems with life! Explore the river’s ecology and biodiversity by studying some of its most interesting inhabitants, the macroinvertebrates that serve as indicators of a stream’s health. The second session will include a trip into the Thain Family Forest where we’ll use leaf packs and magnification tools to observe and identify the aquatic insects we find in the Bronx River. $115/$125

10/14 & 10/21 (rain date: 10/27), 10 am †
Ken Chaya | NYBG & Online | 222NAT352BL

† The start time for all sections is as listed; end times vary. See website for the full schedule.
Perpetual Journaling: Draw the Details

For years, botanical artist and two-time RHS Gold Medalist Lara Call Gastinger has captured the natural world in a “perpetual journal”—a book with a double page spread of sketches and paintings that documents what she sees each week of the year. Learn how to start and maintain your own perpetual journal as Lara demonstrates specific techniques to help you record your landscape over time and gives you prompts to guide your sketching between sessions. Keen observers of nature with no drawing experience are welcome! | $359/$395 Certificate Elective

3 Tuesdays, 9/21, 10/5, & 10/19, 10:30 am–12 pm | Lara Call Gastinger | Online | 221NAT356O
Wellness

Exercise or meditate within the Garden or find new ways to bring healthful plants into your everyday life.

TAI CHI FOR PEACE OF MIND AND BODY
This ancient, meditative Chinese exercise teaches relaxation, balance, and self-defense with an emphasis on correct body posture and spinal alignment. Students become relaxed, physically stronger, and ultimately healthier in both mind and body. | $119/$129
8 Saturdays, 9/25–11/20 (no class 10/9), 10–11 am
Robert Torres | NYBG | 221WEL102B
8 Saturdays, 1/29–3/26 (no class 2/19), 10–11 am
Robert Torres | NYBG | 223WEL102A

FOREST BATHING
Experience the research-proven health benefits of forest bathing by slowing down and awakening your senses. After learning basic sensory and meditation techniques drawn from the Japanese practice of Shinrin-Yoku, Scandinavian nature philosophies, and other practices, you’ll engage in mindful walking through NYBG’s Thain Family Forest. | $45/$49
Friday, 10/1, 10:30 am–12 pm
Nicole Elmgart | NYBG | 222WEL145A
Sunday, 10/24, 10:30 am–12 pm
Nicole Elmgart | NYBG | 222WEL145B

NEW! ORNITHERAPY: THE PRACTICE OF MINDFUL BIRDING
Through simple techniques and exercises of mind + body birding, we can tune in better to the birds and natural world around us, enhancing our experiences as observers. This in turn amplifies the overall benefits to our own well-being: mind, body, and soul. | $59/$65
Saturday, 10/30, 11 am–1 pm
Holly Merker | NYBG | 222WEL159

INTRO TO HERBAL MEDICINE
Discover the differences between herbal medicine and homeopathy, the three major branches of herbalism, and the fascinating history of herbal medicine. Learn how to choose and store herbs, how to properly take herbal medicines, and how to use several common herbal remedies. | $59/$65
Wednesday, 11/17, 6–8 pm
Karina Gordineer | Online | 222WEL109O

NEW! FROM GARDEN TO SPA: NATURAL BODY CARE
Create spa-worthy products from your garden—revitalizing lotion bars, lip balms, bath salts, body scrubs, and more using a variety of botanicals. Ideal for those who want to indulge in self-care or create lovely holiday gifts. All materials provided. | $115/$125
Saturday, 11/20, 11 am–2 pm
Elizabeth Scholl | NYBG | 222WEL144

NEW! PINE MEDICINE
From cough syrups to pine pollen pancakes and spruce tip salt, discover how common conifers can delight your taste buds and enhance your apothecary. We’ll craft a few remedies together; all materials provided. | $79/$85
Monday, 12/6, 6:30–8:30 pm
Dawn Petter | Manhattan | 222WEL182

GUT HEALTH: THE KEY TO YOUR IMMUNE SYSTEM
Your digestive system is home to over 70% of your immune system! So keeping your gut in tip-top shape is crucial to maintaining good health. Examine the difference between good and bad bacteria and explore how each affects your body. Then study how to strengthen your digestion. | $45/$49
Thursday, 1/6, 6:30–8 pm
Cheryl Paswater | Online | 223WEL215O
Wellness classes are presented for informational purposes only and are not intended for self-medication.

HERBALISM: BEYOND THE BASICS
In this deep dive into herbal medicine, we’ll cover the medicinal properties and uses of nearly 100 local or easy-to-source healing plants. You will infuse, blend, and decoct your own herbal apothecary of teas, salves, tinctures, syrups, vinegars, compresses, and poultices. A materials kit with ingredients will be delivered to your home. | $425/$469
4 Wednesdays, 1/26, 2/23, 3/16, & 4/13, 6–8:45 pm & 4 Saturdays, 1/29, 2/26, 3/19, 4/16, 11 am–1:45 pm
Karine Gordineer | Online | 223WEL161O

MEDICAL CANNABIS
Proponents tout marijuana as a safe, effective treatment for symptoms of cancer, HIV, MS, Parkinson’s, and more—while opponents see many physical and social risks. Gain an overview of the endocannabinoid system, its effects on the brain, and the future of medical cannabis in the U.S. | $45/$49
Tuesday, 2/1, 6:30–8 pm
Stephen Dahmer, M.D. | Online | 223WEL128O

SOAPMAKING WORKSHOP
Bring the bouquet of a summer garden indoors with handmade, naturally moisturizing glycerin soaps. You’ll learn the traditional melt-and-pour process and combine fragrances of various dried herbs and essential oils—lavender, rosemary, mint, and more—to make four bars to take home. All materials provided. | $115/$125
Saturday, 2/5, 11 am–2 pm
Elizabeth Scholl | NYBG | 223WEL143

NEW! MYSTERY TEA TASTING
Discover a herb’s therapeutic qualities by exploring its scent, taste, and how a particular herbal infusion feels in your body. Clinical herbalist Geraldine Lavin will send a “mystery herb” to your home along with brewing instructions. At the end of the tasting, she will reveal the mystery herb’s identity and its published properties. | $55/$59
Wednesday, 2/23, 6:30–8 pm
Geraldine Lavin | Online | 223WEL166O

NEW! HERBAL MEDICINE FOR IMMUNE SUPPORT
Explore which herbs, fungi, and nutrient-dense foods offer resistance for colds and flu. Learn how to create two herbal remedies to strengthen the immune system and support the body to fight off pathogens. Check our website for materials to purchase before class. | $45/$49
Monday, 1/24, 6:30–8:30 pm
Dawn Petter | Online | 223WEL178O

Continuing Education Units, Professional Societies, & Academic Programs

Continuing Education Units (CEUs)
APLD and ASLA Members: Don’t miss out! Get CEUs for many of our lectures. Events offering CEUs are noted in the catalog or on the individual event listing pages at nybg.org/adulted.

NYBG & Bronx Community College Associate Degree Program
NYBG and Bronx Community College offer an Associate Degree program. The first year of the program is offered at BCC where students take academic courses. The second year is spent at NYBG, where students take academic courses and work in horticulture. For more information, contact Adjutant Adebola at adjutant.adebola@bcc.cuny.edu or 718.289.5538, or NYBG at 718.817.8720.

Tri-State Botanical Artists of NYBG (TSBA)
All NYBG Botanical Art & Illustration students are cordially invited to join the Tri-State Botanical Artists of NYBG. TSBA, a circle of the American Society of Botanical Artists, is a group of more than 90 like-minded artists that meets once a month to support each other and share resources. Meetings are free via Zoom. Each month, there will be a speaker who discusses a relevant topic such as fine art materials, galleries, botany, or gardens. For more information and to sign up for the e-newsletter, please contact ssapanara@gmail.com, jeanne.reiner@gmail.com, or gayegrossman@gmail.com

Landscape Design Students and Alumni Association (LDSA)
LDSA encourages a dynamic exchange of information among students, faculty, and alumni. It provides networking opportunities, as well as an indispensable Q&A service via a Yahoo Group available to all members. Monthly meetings feature guest speakers and informal design critiques, and are focused on topics in the professional arena. All students and alumni in Landscape Design, Horticulture, and Gardening are invited to attend. Call Elaine Yellen at 914.723.4090 for details.

American Horticultural Therapy Association (AHTA)
The AHTA promotes the development of horticultural therapy programming throughout the United States. Their mission is to help the profession gain visibility. The AHTA also administers a voluntary professional registration program that lists accredited horticultural therapists. For more information visit ahta.org

American Society of Botanical Artists (ASBA)
ASBA is a non-profit organization of more than 1,300 members throughout the US and in 20 other countries. Dedicated to promoting awareness of contemporary botanical art, ASBA provides educational opportunities through its annual conference and quarterly journal, The Botanical Artist. ASBA maintains their headquarters at NYBG on the third floor of the Watson Education Building. ASBA brings the best of contemporary botanical art to the public by curating the NYBG Triennial and other exhibitions. For information visit asba-art.org

Association of Professional Landscape Designers (APLD)
The APLD advances landscape design as a career and promotes the recognition of landscape designers as qualified professionals. It has established a set of rigorous standards that must be met to become certified. Student memberships are available for those actively enrolled in a landscape design or horticulture program. For more information visit apld.org

Department of Environmental Conservation (DEC)
The New York State Department of Environmental Conservation (DEC) requires commercial pesticide applicators to take a 30-hour course such as Preparation for Pesticide Applicator Certification Examination offered at NYBG, and pass a State-administered exam. Applicators must periodically apply for recertification and complete a number of courses approved by the DEC and the NJ State Department of Environmental Protection (DEP).

The Guild of Natural Science Illustrators (GNSI)
The Guild is an international organization whose members strive to maintain and further the field, assist others in entering it, and encourage high standards of competence. For information, visit isarbor.com

International Society of Arboriculture (ISA)
ISA is a worldwide network of professional arborists who foster a greater awareness of the benefits of trees, and promote the professional practice of arboriculture. For more information, visit isa-arbor.com

NYBG School of Professional Horticulture
NYBG’s School of Professional Horticulture offers a comprehensive, full-time, two-year program combining hands-on training with academic study to educate and prepare you to become a skilled professional horticulturist. With a 100% job placement rate for the past 11 years, alumni have successful careers in public and private sectors, including estate management, landscape design/build firms, and public parks and gardens.

The School is nationally accredited by ACCET and licensed by the New York State Education Department. Federal financial aid is available to qualified students.

For a catalog, visit nybg.org/edu/soph or call 718.817.8797.
Academic Policies & Procedures

**Course Levels**
100–299 Short, non-credit courses
300–399 Basic (may have prerequisites)
400–499 Intermediate (may have prerequisites)
500–599 Advanced (may have prerequisites)
600–699 Classes with a Master
700–799 Sympoisa
800–899 Lectures
900–949 One-day, hands-on workshops
950–999 Intensive Programs

**Courses with Prerequisites**
In order to register for courses with prerequisites, students must have received a passing grade in the prerequisite course(s).

**Work-Study Opportunities**
For information about work-study opportunities with Adult Education, please call 718.817.8802.

**School Policies for Certificate Programs**
The Director and Program Coordinators formulate policy regarding standards of student performance, including awarding Certificates, rules of conduct, and student appeals. Please contact the Director with any questions or concerns at 718.817.8995.

**Satisfactory Academic Progress Policy**
Student progress is measured by grades for Certificate courses, while Non-Certificate courses are not graded.

<table>
<thead>
<tr>
<th>Grade</th>
<th>GPA</th>
<th>Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
<td>94-100</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td>90-93</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>87-89</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>83-86</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
<td>80-82</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>77-79</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>73-76</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
<td>70-72</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
<td>67-69</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td>60-66</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>0-59</td>
</tr>
<tr>
<td>NC</td>
<td>0</td>
<td>NO CREDIT</td>
</tr>
</tbody>
</table>

All coursework (final exams, papers, projects) must be completed on time unless the instructor grants additional time for extenuating circumstances.

Grades are available via your online student account. Call 718.817.8720 for help creating an online student account, to receive grades over the phone, or request a transcript.

All incomplete grades will be converted to an F within 4 weeks if work is not completed by then. A student must repeat a course and earn a passing grade in order to receive a Certificate; additional course materials will be charged at cost.

**Previous Education Credit**
A student may qualify for course exemption through:
- College courses taken for degree credit from an accredited college or university
- Evaluated non-collegiate sponsored instruction
- Proficiency exams

To be exempted from a required course, you must complete the Course Exemption Request Form, present transcripts showing an earned grade of C or higher, and present the course outline and/or relevant supporting documentation. The School will evaluate these submissions and make a decision. If exempted from the course, you must take an equal number of hours of approved elective course(s).

**Attendance**
On-time attendance is required at all classes. Unexcused tardiness and absences are not accepted, unless due to an emergency, including serious illness or death within a student’s family. Absences should be reported to the Registration Office at 718.817.8720 and will be evaluated on a case-by-case basis. Students must request makeup tests, which will be scheduled at the instructor’s discretion. Deficiency in any required work resulting from absence from class must be made up at the student’s own expense to satisfy the instructor.

**Student Work**
Students have 8 weeks following the last day of class to pick up any work left by instructors at the Registration Office. After that time, unclaimed assignments will be discarded.

**Certificate Requirements**
Certificate requirements are those stated in the catalog from which the student first registered for a Certificate course.

To qualify for a Certificate, students must receive passing grades in all required courses.

Students have 6 years from the start of their first required course to complete a Certificate.

**Certificate Graduation Ceremony**
The 2022 ceremony will be held on Sunday, June 5. If you expect to complete your Certificate requirements or enroll in all remaining classes by June this year, you must inform the Manager of Adult Education in writing at adultedgraduation@nybg.org by March 25. You will be informed if you are eligible for a Certificate by April 18. Call the Registration Office at 718.817.8720 with any questions.

**Transcripts**
Official ($4 each) and unofficial transcripts (free) are available from the Registration Office. Request an official transcript in writing, including the name and address of the institution to which the transcript should be mailed. Transcripts will be mailed within 2 weeks, with a copy sent to the student.

**Privacy**
The School of Horticulture and Landscape Design complies with the Federal Education Rights and Privacy Act of 1974. The following categories of information concerning individual students and former students may be made available to the general public: name, attendance dates, telephone listing, date and place of birth, field of study, and previous education institutions attended by the student. Students may request that any of the above information not be released without their prior consent.

**State Licensing and Accreditation**
The School of Horticulture and Landscape Design—which includes three programs: Horticulture, Horticultural Therapy, and Landscape Design—is licensed with the New York State Bureau of Proprietary School Supervision (BPSS), a division of the New York State Department of Education. Licensure under the state recognizes the Certificate Programs in Horticulture, Horticultural Therapy, and Landscape Design as high quality and career oriented.

Students of Licensed Private Schools in the State of New York have the right to file a complaint with the New York State Education Department if they believe that the School or anyone representing the School has acted unlawfully. Students may make complaints about the conduct of the school, advertising, standards and methods of instruction, equipment, facilities, qualifications of teaching and management personnel, enrollment agreement, methods of collecting tuition, School license or registration, School and student records, private School agents, and other charges.

To file a complaint, students should write to the New York State Education Department’s Bureau of Proprietary School Supervision at 116 West 32nd Street, 5th Floor, New York, NY 10001, or call the Department at 212.643.4760, requesting an interview for the purpose of filing a written complaint. All relevant documents must be brought to the interview. If you cannot attend an interview, send a letter or call the Bureau to request a complaint form. You must complete and sign the form and mail it to the Bureau, including copies of all relevant documents. The Bureau cannot investigate any complaint made more than 2 years after the date of alleged occurrence.

Disclaimer
Content of courses and opinions expressed by instructors are their own and do not necessarily reflect the opinions or views of The New York Botanical Garden. The information provided does not, and is not intended to, constitute legal advice. No representation is made that any information provided constitutes the most up-to-date legal or other information.
**Registration & General Information**

**Registration**
The quickest way to register for a class is to visit nybg.org/adulted. Many classes fill quickly, so please sign up early to avoid disappointment!

**Confirmations**
Registration confirmations will be sent same day via email.

**Entrance to the Garden on Class Days**
You must bring your printed confirmation letter for admission to the Garden, and present it at the Moshulu Entrance to gain admittance and free parking.

**Storm Closings**
Class cancellations due to inclement weather will be rescheduled.

**Refunds and Withdrawals**
No discounts will be granted for missed classes. There are no refunds or credits 24 hours before a course begins.

A refund will be issued if your class is cancelled due to low enrollment. If you wish to withdraw from a course before it begins, you must notify the Registration Office ten full business days before the first class meeting. We will issue a refund minus a $10 processing fee.

If you must withdraw fewer than ten days before the first class meeting:

No refunds will be granted for course levels 0–299 and 700–999.

A 75% refund minus a $10 processing fee will be granted for course levels 300–699. Please note: Floral Design materials fees will not be refunded fewer than 5 business days before class begins.

**Holidays**
No classes will be held during the Fall 2021–Summer 2022 academic calendar on the following days: Sept. 6; Oct. 11; Nov. 25–26; Dec. 23–Jan. 2; Jan. 17; Feb. 21; May 30; July 4

---

**Accessibility**
NYBG is accessible to persons with disabilities. Please ask about accommodations when you register or visit nybg.org for more information.

**Garden Membership**
Become a Member today and receive year-round admission, access to Garden programs, discounts at NYBG Shop and on Adult Education classes, and exclusive invitations to special Member Days, Trips, Tours, and Programs. For more information, call 718.817.8703 or visit nybg.org/membership

**A WORD ON IN-PERSON CLASSES**
All Adult Education students taking in-person classes at NYBG or our Midtown Education Center must show valid proof of vaccination against COVID-19 and ID. All instructors are also required to be fully vaccinated. Everyone, including staff, must wear a face covering in any NYBG indoor location. Safety remains our top priority, and we continue to monitor CDC, state, and city guidelines. For the latest policies, please visit nybg.org/faq-vaccination

---

**Registration Is Easy!**

**Web**
Register online at nybg.org/adulted

**Phone**
718.817.8720 Registration Office, M–F 9 am–5 pm

**The Garden | Quick and easy to reach:**
Bronx River Parkway (Exit 7W) Metro-North Railroad to Botanical Garden Station

**Midtown Education Center**
Two blocks from Grand Central Terminal
20 West 44th Street, between 5th and 6th Avenues; 212.302.2054

---

**CLASSES AT OUR MIDTOWN EDUCATION CENTER ARE BACK!**

**BOTANY**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/13</td>
<td>10:00 am</td>
<td>Autumn Mushrooms</td>
<td>9</td>
</tr>
<tr>
<td>1/25</td>
<td>6:00 pm</td>
<td>The Hidden World of Lichens</td>
<td>10</td>
</tr>
</tbody>
</table>

**CRAFTS & CULINARY**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/14</td>
<td>6:00 pm</td>
<td>Watercolor Basics</td>
<td>12</td>
</tr>
<tr>
<td>1/20</td>
<td>6:00 pm</td>
<td>Watercolor Basics</td>
<td>12</td>
</tr>
<tr>
<td>12/7</td>
<td>6:00 pm</td>
<td>Botanical Mixology</td>
<td>14</td>
</tr>
<tr>
<td>3/19</td>
<td>11:00 am</td>
<td>Watercolor Basics</td>
<td>12</td>
</tr>
</tbody>
</table>

**FLORAL DESIGN**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/25</td>
<td>10:30 am</td>
<td>Fundamentals of Form</td>
<td>17</td>
</tr>
<tr>
<td>11/13</td>
<td>10:30 am</td>
<td>Fundamentals of Style</td>
<td>17</td>
</tr>
<tr>
<td>1/22</td>
<td>10:30 am</td>
<td>Fundamentals of Form</td>
<td>17</td>
</tr>
<tr>
<td>2/26</td>
<td>10:30 am</td>
<td>Fundamentals of Style</td>
<td>17</td>
</tr>
</tbody>
</table>

**GARDENING**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/30</td>
<td>10:00 am</td>
<td>Creating an Indoor Garden</td>
<td>24</td>
</tr>
<tr>
<td>10/30</td>
<td>12:45 pm</td>
<td>Succeed with Low-Light Plants</td>
<td>24</td>
</tr>
<tr>
<td>10/30</td>
<td>3:00 pm</td>
<td>Growing Herbs Indoors</td>
<td>24</td>
</tr>
<tr>
<td>3/19</td>
<td>10:00 am</td>
<td>Fragrant Indoor Garden</td>
<td>22</td>
</tr>
</tbody>
</table>

**HORTICULTURE**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/4</td>
<td>6:00 pm</td>
<td>Introduction to Plant Science</td>
<td>27</td>
</tr>
</tbody>
</table>

**LANDSCAPE DESIGN**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/6</td>
<td>10:00 am</td>
<td>Intro to Landscape Design</td>
<td>36</td>
</tr>
<tr>
<td>2/26</td>
<td>10:00 am</td>
<td>Intro to Landscape Design</td>
<td>36</td>
</tr>
</tbody>
</table>

**WELLNESS**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/6</td>
<td>10:30 am</td>
<td>Botanical Bath Bombs</td>
<td>43</td>
</tr>
<tr>
<td>11/6</td>
<td>12:45 pm</td>
<td>Herbal Honeys</td>
<td>43</td>
</tr>
<tr>
<td>11/6</td>
<td>2:30 pm</td>
<td>Elderberry Syrup</td>
<td>43</td>
</tr>
<tr>
<td>12/6</td>
<td>6:30 pm</td>
<td>Pine Medicine</td>
<td>42</td>
</tr>
</tbody>
</table>
Keep Growing at NYBG

Change your career. Beautify your green space. Exercise your creativity. Renew your spirit. The New York Botanical Garden has hundreds of classes to educate, inspire, and guide you.

*Classes meet online, in our 250 magnificent acres in the Bronx, and at our Midtown Education Center at 20 West 44th Street.*