



**Curricular Enhancement Program**  
**Smith College Botanic Garden**  
[www.smith.edu/garden/faculty.html](http://www.smith.edu/garden/faculty.html)

### *Application Guidelines and Information*

These faculty grants have been funded through the Louise de Bevers Spetnagel Endowment Fund.

### **Program Goal**

The **Curricular Enhancement Program** promotes the development of courses at Smith College that help students connect with plants and the botanic garden environment. The program provides stipends and supplemental course funds for development of courses or portions of courses utilizing the Botanic Garden and its resources. The Botanic Garden has traditionally had a close relationship with teaching in the biological sciences. We seek to strengthen this work and to expand connections with other sciences and with the arts, humanities, and social sciences.

### **Applications**

Deadlines are **October 31** and **March 31** each year, for courses to run any of the three semesters following the application. Faculty information sessions, held several weeks before each deadline, are announced on the program's website. We ask that you confer with the Curricular Enhancement Consultant prior to applying (see below).

### *Eligibility*

Faculty in any discipline may apply. Faculty who currently use the Botanic Garden for their courses without Curricular Enhancement Program support are eligible, provided their proposal is for a new or revised course.

### *Types of Funding and Support*

Faculty stipends are offered at three scales: full semester (\$3000), half-semester (\$2000), or substantial component of 3-4 sessions (\$1000). Stipends are accompanied by supplemental course funds up to \$500 (full semester) or \$400 (half-semester or substantial component). Supplemental course funds may be used for field trips, outside speakers, a stipend for a community partner, and the like.

### *Awards and Reporting Requirements*

Several awards are made on a competitive basis each year. A syllabus or course plan must be submitted at least three weeks prior to the start of the course. Stipends will be paid upon receipt of this plan. Each recipient will be expected to submit a brief report within 30 days of the conclusion of the course.

***Application Cover Sheet:***

Name:

Department:

Position:

Email, campus address, phone:

Course number and title:

Anticipated number of students:

When do you anticipate offering it? (semester, days/times)

Level of support requested:

***Please attach a two-page description of your course addressing:*** how the Botanic Garden portion will support your course goals, how the Botanic Garden's resources may be involved (e.g. types of plants needed, physical spaces such as Botanic Garden classrooms or bench space, assistance from Botanic Garden staff through tours or lectures, proposed teaching activities, etc.), and proposed uses of supplemental course funds. It is understood that plans will be tentative at this point.

Applications should be emailed to the Curricular Enhancement Consultant at [bgcourse@smith.edu](mailto:bgcourse@smith.edu) by **October 31 or March 31**. For further information, please contact [bgcourse@smith.edu](mailto:bgcourse@smith.edu) or leave a message for Nancy Rich at 585-2742.

## Resources for Teaching at the Botanic Garden

### *The Collection*

Course plans may involve the Lyman Plant House and Conservatory, the Campus Arboretum, and/or specialty gardens around campus. The Lyman Plant House is open weekdays and weekends 8:30 a.m. to 4 p.m. Faculty may bring their classes, and students are welcome to come on their own. Outdoor areas are, of course, available any time.

The plant collection has developed around the teaching of horticulture and plant science, aesthetics, preservation of rare species, representation of different biomes and different plant uses (economic, medicinal, culinary, aesthetic), and research. In the conservatory, the plants come from Asia, Australia and New Zealand, Africa, Latin America, and North America, and in certain areas are grouped biogeographically. Desert, tropical, and warm and cool temperate biomes are represented.

Outdoors, the Campus Arboretum features a living museum of woody plants in specialty gardens and plantings around campus buildings. These are described at [www.smith.edu/garden/Gardens/gardens/html](http://www.smith.edu/garden/Gardens/gardens/html). The shores of Paradise Pond and the Mill River are also home to many trees and plants native to Western Massachusetts.

### *Websites and databases*

- *Botanic Garden Website* – [www.smith.edu/garden](http://www.smith.edu/garden). Maps, descriptions and history of the Botanic Garden, a Plant Database, descriptions of research projects and efforts to preserve biodiversity and manage invasive species, stories of specific plants and trees, cultivation issues, public events and exhibitions.
- *Audio Tour* – available in the Lyman Plant House lobby; free with a Smith ID.
- *Plant Database and Plant Images Database* - [www.smith.edu/garden/collections/collections.html](http://www.smith.edu/garden/collections/collections.html).
- *Plant Locator Kiosk* – available in the Lyman Plant House reception area.
- *Plant Labels* – located on many of the trees, shrubs and plants outdoors and indoors
- *Guides to the Collection* - available on such topics as economic plants, plants of the ancient Roman world, medicinal plants, ferns, campus trees, Biblical plants, and more.

### *Facilities*

Space and schedule permitting, faculty may occasionally use Lyman Plant House classrooms, which seat 25 students each. Low magnification dissecting microscopes are available, as are facilities for potting and propagating plants. Visits to the greenhouses are best for a maximum of 10-12 students at a time (classes can be split into two groups if necessary). An exhibition corridor is available for class use for a small exhibition, schedule permitting.

### ***Related campus resources***

Visits to other campus resources may be included in course plans; for example:

- *Sophia Smith Collection* – archives on women and their lives; includes women who were agriculturalists, landscape architects, and others. ([www.smith.edu/libraries/libs/ssc](http://www.smith.edu/libraries/libs/ssc)).
- *Smith College Archives* - documents on the history of the Botanic Garden, the Botany Department, and the campus landscape; for example, on the women who taught botany at Smith and Smith students who helped in local Victory Gardens during World War II ([www.smith.edu/libraries/libs/archives](http://www.smith.edu/libraries/libs/archives)).
- *Smith College Museum of Art* - includes paintings, drawings and prints related to plants and landscapes ([www.smith.edu/artmuseum](http://www.smith.edu/artmuseum)).
- *Mortimer Rare Book Room* – includes an outstanding collection of early herbals and other rare and important botanical books from Renaissance through contemporary periods ([www.smith.edu/libraries/libs/rarebook/](http://www.smith.edu/libraries/libs/rarebook/)).

### ***Sample topics and teaching activities***

The Botanic Garden presents many opportunities for the teaching of the arts, humanities, social sciences, and sciences, including:

- Plants as indicators of politics, cultural survival, migration patterns, trade, colonialism
- Economic uses of plants as artists' materials, construction materials, chemicals, fiber, food, medicine (e.g., bamboo, papyrus, rice, sugar, quinine, cotton, rubber, spices)
- Plant symbolism in art, religion, culture, literature; plant growth as metaphor
- Botanical, horticultural, and biological topics; plants as indicators of soils and hydrology
- Gardens as expressions of culture, memorialization, community
- Conservation and biodiversity issues (e.g., the Botanic Garden's seed exchange program)
- Educational, marketing, and behavioral issues (e.g., visitor responses)
- The greenhouses as physical spaces requiring heat, light, ventilation

Teaching activities might involve:

- Drawing, photography, writing
- Growing plants in planter boxes (requires advance notice to acquire seeds and seedlings)
- Collecting data on trees and plants in the conservatory
- Looking at plants under a microscope
- Conducting experiments on plants
- Developing online materials, self-guided tours, or narrative plant labels for the public
- Observing plant growth over the course of the semester
- Tour, lecture or self-guided activity developed by Botanic Garden staff
- Presenting a small exhibition in the exhibition corridor (requires advance notice)

### ***Staff assistance***

The staff of the Botanic Garden is available as needed to assist in making use of the collections, connecting with botanical or other expertise, structuring assignments, and suggesting links with related collections and resources. Please contact Nancy Rich, Curricular Enhancement Consultant, at [bgcourse@smith.edu](mailto:bgcourse@smith.edu) or leave a message at (413) 585-2742.

## Botanic Garden of Smith College

### Courses Taught with Curricular Enhancement Program Support

**Art History 285, Great Cities: Pompeii. Barbara Kellum. Fall 2007.** This course explores many different aspects of life—entertainment, worship, work, shopping, dining—in the ancient city of Pompeii, destroyed in an eruption of Vesuvius in 79 C.E. In all of these activities, plant forms played a fundamentally important role. A “treasure hunt” and paper assignment introduced students to key plants of ancient Mediterranean culture found in the Lyman Plant House. Students then planted and maintained Pompeian gardens in planter boxes and learned about the culinary, medicinal, and ornamental uses of these plants. These gardens became part of an exhibition curated by Victoria I, entitled “Pompeian Gardens: Illustrations from *A Pompeian Herbal*,” December 1-7, 2007, in the Jannotta Gallery in Hillyer Art Building. Course funds contributed to planting and exhibition expenses.

**Studio Art 269, Offset Printmaking I. Dwight Pogue. Fall 2007.** This course provides students with the opportunity to create prints based on following the development of chrysanthemums in the Lyman Conservatory from the beginning of the semester in September through the Chrysanthemum Show in November. Students made sketches and drawings in the Conservatory, which became the basis for their lithographs and monotypes. They studied mum flower anatomy, dissecting flowers under the microscope, and learned how to make hybrid crosses. They also researched chrysanthemums and their use in literature, poetry, music, science, and art. A selection of the students’ prints was exhibited at the Lyman Conservatory as *Chrysanthemums: Lithographs and Monotypes*, January 23-March 23, 2008.

**Biological Sciences 263, Plant Biology (Lab). Carolyn Wetzel. Fall 2009.** This lab component offers students hands-on experience with plants. Students meet at the Plant House, take several field trips, and use the indoor and outdoor plant collections for observations and experiments. Course funds are used to develop revised methods for surveying comparative anatomy and morphology of plant groups. Instead of relying on prepared slides and published plant atlases, students learn to make their own slides and digital plant atlases using plants from the indoor and outdoor collections, thereby learning basic skills in plant biology and having the experience of physically handling and preparing their own materials.

**Biological Sciences 366, Biogeography. Paulette Peckol. Spring 2009.** Biogeography is the study of distributions of species (biodiversity) over time and place. In the Botanic Garden portion of the course, students explored the Lyman Plant House and outdoor collections to understand key factors in biogeography.

**Dance 207/305 or 209/309 (TBD), Site-specific Dance Composition. Susan Waltner. Spring 2010.** In this course, site-specific choreography is developed as a collaborative project between students and teacher. The course focuses on developing work for Capen Garden on the Smith campus. Students work as much as possible in the Garden, paying close attention to changes in the Garden. The course culminates in public performances. Course funds are used for supplies and for a student artist to make drawings of Capen Garden the previous spring that become part of the choreographic resource.

**East Asian Languages and Literature 231, The Culture of the Lyric in Traditional China: Plants and Poetry. Sujane Wu. Fall 2009.** The definition of lyric in the Chinese tradition is the natural, direct expression and reflection of one’s inner spirit as a result of a unique encounter with the external world. Through close, careful readings of folk songs, lyric poems, prose, and excerpts from a novel and a drama, students inquire into how the spiritual, philosophical and political concerns dominating the poets’ milieu shaped the lyric language through the ages. Students focus on the historical development of images and symbolism of the chrysanthemum, lotus and bamboo in Chinese literature. Students select poems to display with plants in the Chrysanthemum Show and present a public reading of these poems. Course funds help support a lecture by Prof. Xiaofen Tian on the lotus in Chinese literature.

**Education and Child Study 231, Foundations and Issues of Early Childhood Education. Susan Etheredge. Spring 2009.** In this course, students explore how young children think and learn. They also examine the teaching/learning relationship in the early childhood classroom. Using the Lyman Plant House as the site of a semester-long investigation of leaves and bulbs, students pursued an understanding of inquiry-based teaching and learning contexts for young children. Students engaged kindergarteners of the Campus School in this collaborative inquiry through observing, collecting data, sketching, photographing, generating metaphoric language and learning scientific language to describe the leaves, reading and writing poetry, keeping journals and notebooks, and contributing to a small exhibition at the Plant House on their inquiry and study. Botanic Garden staff provided an introductory tour. Course funds were used for books and supplies.

**Engineering 315, Ecohydrology. Andrew J. Guswa. Spring 2008. Fall 2009.** The Botanic Garden portion of this course serves as a laboratory/field component on the measurement and modeling of hydrologic processes and their interplay with ecosystems. Students learned about plant adaptations to water and light availability through a self-guided activity at the Plant House; a lecture by Botanic Garden Director Michael Marcotrigiano, and a tour and demonstration by Conservatory Manager Rob Nicholson on root structures. Students returned to the Plant House a second time to observe plants from water-limited ecosystems and water-rich environment, and to visit the Stove House and frog pond to learn about wetland vegetation. Students also downloaded and analyzed data from a sap flux sensor (developed in a prior study by Katie Travis '08 and installed on an olive tree in the Plant House). The sensor is designed to investigate plant uptake of water based on the science of heat transfer to infer the velocity of water in the xylem. Supplemental course funds were used to purchase supplies related to the measurement of sap flux.

**English 270, The King James Bible and Its Literary Heritage. Patricia L. Skarda. Spring 2008.** A unit on plants of the Bible centered on understanding the symbolic valence of trees, plants, and flowers found in Scripture. Through individual research and class tours of the Lyman Plant House, the Bulb Show, and outdoor gardens, students learned about uses of key plants in Biblical times for food, fragrance, and medicine, and how these uses contributed to symbolic meanings and religious traditions found in Scripture. Key species included fig, olive, pomegranate, etrog (citron), myrrh, frankincense, bulrushes, cypress, palm, cedar, and willow. To aid in understanding cultivation issues that contributed to the meaning of such plants in Scripture, students planted and tended examples of these species. The unit culminated in a research and writing assignment on selected plants of the Bible.

**English 299, Green Victoria. Cornelia Pearsall. Spring 2009.** Drawing on the resources of the Smith Botanic Garden and library collections, this course explores a variety of landscapes Victorians created or imagined, designed or desired. Topics included the language of flowers, the transplantation of the seeds and fruits of Empire, and the fascination with processes of decomposition. Readings included theoretical writings of Charles Darwin and John Ruskin, as well as literary and visual representations of botanical longing or dislocation by such authors and artists as Lewis Carroll, Charles Dickens, Frances Hodgson Burnett, Christina Rossetti, Dante Gabriel Rossetti, Vanessa Bell, and Virginia Woolf. The class visited the President's Garden, the Lyman Conservatory, and Smith's composting operation at Fort Hill. Talks were given by botanist C. John Burk and Botanic Garden staff. Writing assignments were based on observation of people and plants in the Planthouse, as well as on Victorian-era notebooks of Smith botany students and faculty, and florigraphic texts in the Rare Book Room.

**First-year Seminar, Reading the Earth. Sharon Seelig. Fall 2008, Spring 2010.** This course focuses on natural observation, practiced on the Smith campus and in the Connecticut River Valley. Students kept journals of their observations, wrote these up in a variety of forms, and discussed related written texts. Botanic Garden visits included guided walks along the Mill River and campus gardens; discussion of how people have approached questions of description and identification; instruction and practice in use of a plant identification key; and a tour of the Plant House and its systems of classification and the different experiences in each area. Students also visited related collections at the Mortimer Rare Book Room and Smith College Museum of Art and Smith College Archives. Course funds provided an honorarium for naturalist Elizabeth Farnham to lead the Mill River walk.