Making connections: Engaging faculty and community at a liberal arts college
Michael Marcotrigiano
Director, Botanic Garden
Professor, Biological Sciences
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Moose Poop to Modern Dance: Engaging faculty and community at a liberal arts college
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How do academic gardens differ from “public” gardens?
My split appointment

60% Admin

40% Faculty
Biology
Education – how?

- Volunteers leading tours
- Self-guided audio tours
- Biology classes including *Horticulture*, *Landscape Plants*, and *Economic Botany*
- Seminar Speakers
- Pamphlets
- Newsletter
- Web Page
- Interpretive Signs
- Internships/Work Study Students
- Support Courses including those outside of “Biology”
- Collaborations with Other Departments
  - Curricular Enhancement Program
- Temporary Exhibits
- Permanent Installations
Support Courses including those outside of biology
Plant Physiology (Bio 260) – Professor Carolyn Wetzel
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Curricular Enhancement Program

Art History 285, *Great Cities: Pompeii*, Barbara Kellum

Studio Art 269, *Offset Printmaking I*, Dwight Pogue

Engineering 315, *Ecohydrology*, Andrew Guswa

English 270, *The King James Bible and Its Literary Heritage*, Patricia L. Skarda

First-year Seminar 158, *Reading the Earth*, Sharon Seelig

English 299, *Green Victoria*, Cornelia Pearsall


Dance 207/305, *Site-specific Dance Composition*, Susan Waltner

HISTORY 299 Ecol in Africa- Sarah Hardin, Professor
ECS 231 - Foundations and Issues of Early Childhood Education
Studio Art 269 - Offset Printmaking
Dance 207/305, Site-specific Dance Composition

Dances for Capen Garden

Performance by students in Dance 209 & 309, Site-specific Dance Composition, taught by Susan Waltner. As part of the Botanic Garden’s Curricular Enhancement Program, students studied plant movement and developed site-specific choreography for Capen Garden inspired by and based on natural plant movement.

The 35-minute performance was performed several times in April 2010. [Watch a video]
Temporary Exhibits
Temporary Exhibits in our Exhibit Gallery
Plant Spirals: Beauty You Can Count On

Nature offers a rich diversity of patterns, from the symmetry of snow crystals in the physical world to the intricate coloring of insect wings in the biological world.

This exhibit concentrates on one type of pattern produced in nature: spiral arrangements of botanical units such as leaves around a stem or seeds in a sunflower. The study of these plant patterns is part of a field called Phyllotaxis. Spiral arrangements are ubiquitous in plants and often exhibit mathematical features involving the Fibonacci numbers and the Golden Mean. Remarkably, a simple mathematical model based on botanical observations captures the essence of this phenomenon.
Plant Evolution Mural (in progress)
Piggybacking
Studio Art 285

The Process

Photograph → Abstraction → Spacial Composition

Flower Pavilion Model

Computer Model

Yijun Hu ’14
Microbial Diversity Laboratory (BIO371)

All around us a world of diverse microbial life abounds. Researchers find, culture, describe and identify these usually unseen organisms, using a combination of microscopy and molecular techniques.

A variety of microorganisms is associated with the plant kingdom. Hence, the collection of plants growing in varying conditions in the Lyman Conservatory provides an exciting opportunity for students to discover and study a wide range of organisms.

As Instructor of Laboratories and Microscopy Facility Manager, Judith Wopereis used the Botanic Garden’s Curricular Enhancement Program to redesign her laboratory for Microbial Diversity (BIO 371). Students in the class learned techniques for collecting, culturing, identifying, analyzing and photographing organisms. They used a variety of microscopy techniques to document the beauty of the diverse microorganisms that they found in different environments associated with plants. These included pitcher plant traps (where prey is caught), the “cups” of bromeliads (formed by the rosette of overlapping leaves), and root and leaf surfaces.
Name of Organism: *Euglypha* sp.

Description: Testate amoeba with overlapping shell plates. This scanning electron micrograph is a close-up of its aperture with denticulated mouth plates.

Source of Specimen: Lyman Plant House, Orchid House, moss from pot near the pond.

Microscope Technique: Scanning Electron Microscopy

Evolutionary Position: Rhizaria: Euglyphid

Course: BIO 371: Microbial Eukaryotes Laboratory, Spring 2010

Name: Maggie McCaffrey ’10