



MERRITT COLLEGE

*Office of the Dean of Workforce Development and
Applied Sciences*



Summary of Program Review for Landscape Horticulture

CURRICULUM:

Our curriculum is rooted in a strong foundation of basic skills, while constantly evolving to meet the needs of the landscape horticulture profession, especially in the areas of sustainability, low impact design, urban agroecology, new plant introductions, and state-mandated water conservation laws. To evaluate program outcomes we are about to release a major survey measuring the employment gains our past students have made as a result of taking classes and earning degrees in our program. We review our curriculum and goals on a regular basis with our advisory committee and professionals in the “green” industry to assure that we are responding to professional standards.

We update our courses, add new ones, and drop old ones on a regular basis to stay on the cutting edge of our field. The majority of the classes we currently offer have been updated in the past three years – see appendix for a complete accounting of all updates. We will be updating classes with outline updates prior to 2009 as part of our 3 year assessment cycle.

Curriculum review

Both our full-time and adjunct faculty review our courses, as does our Advisory Committee. We discuss proposed courses at faculty meetings and with the department chair to evaluate content and appropriateness. We maintain an open communication with other departments (such as Environmental Management and Technology) as well as other schools (such as the College of Marin and Foothill College) to ensure that our courses prepare students for both transfer and professional careers.

Curriculum improvement

Our department and faculty keep in contact with many of our graduates to help assess the appropriateness and effectiveness of our curriculum. We review our programs with professionals and potential employers in the “green” industry (such as BART, EBMUD, Oakland Parks and Recreation, the Association of Professional Landscape Designers, country Master Gardeners groups, retail and wholesale nurseries, the California Landscape Contractor’s Association) and our Advisory Committee for recommendations on how to better structure our classes to serve professional requirements. As a result we have added new degrees and certificates in Landscape Architecture and Permaculture in the past four years, deactivated many old courses, and discontinued programs in horticultural therapy and turf management to reflect current needs.

Recommendations and Priorities

We are on track to keep our curriculum current and relevant. We review all curriculum on a three year cycle to insure compliance with current assessment requirements, and to reflect current industry needs and trends in the work place. We have introduced many new and innovative classes to reflect workforce needs and practices. Some curriculum changes that we are considering include (pending return to normal budget cycles):

- Separating Landscape Design from Construction and having two distinct certificates.
- Adding a business and entrepreneurial practices class
- Offering advanced classes in both Landscape Construction and Irrigation.
- Revising our groundcovers class to include a section on turf, or making turf a short term class.
- Revitalizing our Nursery Management certificate with input from the nursery industry.
- Expanding our Permaculture Certificate to include an intermediate and advanced certificate and an AS Degree.
- Offering a certificate in Native Plants Design, Maintenance and Restoration.
- Revising both the Interior Horticulture class as well as the Horticultural Equipment Operation, Maintenance and Repair class to reflect current needs.
- Revising the Landscape and Parks Maintenance certificate to include additional landscape maintenance courses.
- Offering additional classes in Plant Propagation such as Tissue Culture.

INSTRUCTION:

Our instructors use a wide range of teaching methods and techniques to involve students in the learning process, including lectures, oral reports, tests, cooperative learning exercises, slide shows, document camera presentations, labs, guest speakers, field trips, community outreach projects, building projects and planting workshops on our 7.5 acre grounds, pruning demonstrations and labs, model making, graphic and verbal reports, seminars and discussions, webcasts, and more. Our grounds management staff works with the instructors during labs, demonstrating tool and equipment operations, cultivation, planting, and fertilizing methods, pruning techniques, propagation, and other tasks essential to a horticulture education.

- All of our faculty take advantage of “smart classroom” technology such as digital images, LCD projection, overhead digital presenters (document cameras), DVDs, and web access. We use document cameras to present student work in innovative ways not seen at many colleges. Our instructors use Moodle to provide student access to class handouts. We are presently not offering on-line curriculum because nearly every one of our classes require direct observation of plants, soil, design media, construction and irrigation materials. However, we are exploring ways to develop online courses once the college budget affords us more FTEF.

- Our 5 greenhouses are all automated utilizing a Micro-Step Computer System designed by Wadsworth Control Systems to operate the heating and cooling systems. Our propagation house has a Bio Therm system of hot water bench heating for plant propagation.

STUDENT SUCCESS:

Retention rate: Our retention rate over the past three years has averaged 80%, comparing favorably with the college average of 78%. See appendices for details.

- Success rate: Our success rate for the past three years averages 74% (College average: 66%). See appendices for details.

- Persistence rate: Our persistence rate for the past three years averages 60%. See appendices for details.

- Awards (certificate and AA degrees: Over the past three years we have awarded 196 certificates and degrees. It is important to note here that this number would likely be much larger was it not for the fact that over 50% of our students already have college degrees. The goal of these students is more to improve skills than to get a Certificate or AA degree. However, we make every effort to encourage students to get certificates and degrees regardless of their previously education, in order to increase their employment prospects.

HUMAN AND PHYSICAL RESOURCES:

Our present facility does not always provide adequate parking spaces when we run three classes at a time. There are 35 parking spaces on our grounds. When there are more than two classes offered at the same time we need to accommodate up to 70 or more cars. We tell students that they can park on main campus, but the roadways are often not well lit and students report that they do not feel safe walking to main campus lots or the bus at 9:30 pm.

We need a larger design studio with 40 drafting stations, wall space to hang drawings, an oversized copier, cabinets and flat files, and smart classroom equipment. Our greenhouses, integral to our Intro, Propagation, Nursery Managements, and other classes, are constantly in need of maintenance (they leak, the heating units need tuning, the benches need replacement, the irrigation needs upgrading, and more). We need a larger library, and a gathering place/kitchen for students to meet before and in-between classes.

Our 7.5 acre grounds is in great need of trail development and maintenance, lighting, stair and wall repairs and upgrades, plants for demonstration gardens, and irrigation upkeep. Our lath houses and propagation benches need to be modernized. The trailer housing our two Science Technicians needs to be replaced with an actual building.

Full-Time Instructor: We have a critical need for a third full-time instructor. Presently we have two full-time faculty and between 20-24 adjuncts. It is very difficult to run a

department with so many part-time teachers who come to teach and then have to leave immediately to go to other jobs. Landscape Horticulture has only had two FT hires since 1980. Two hires in 32 years is unusually low, particularly given our solid FTEF (as high as 7.50 in 2009 before budget-mandated cutbacks). In Fall 2010 the Council of Department Chairs and Program Directors (CDCPD) voted Landscape Horticulture (tied with Child Development) to receive a new FT faculty member. But then the District froze hiring. In Fall 2011 the CDCPD voted Landscape Horticulture to receive one of three FT hires. But the District froze hiring again.

The evidence is strong that we need and deserve a third full-time instructor: getting one would help us maintain more continuity in our curriculum, offer better overall department support, and offer more shared governance support to the entire college.

Staffing: We are in critical need of more staffing. We have to maintain 7.5 acres of grounds, 5000 square feet of greenhouses, two 5000 square foot lath houses, and a large collection of plants and databases for teaching purposes. In addition, we are increasingly using our grounds as an outdoor teaching facility for our Permaculture, Nursery Management, and Parks & Maintenance certificates, to promote our Arboretum status, and to demonstrate new and innovative technologies and practices to the landscape profession and to the community at large, thousands of whom visit us each year at our plant sales. The greenhouses need a permanent part-time lab technician. Maintaining our grounds is simply overwhelming and a facility of this size and 1400 students, staff, faculty each year, would have a minimum of 3-4 full time staff members (one person per 2.5 acres of grounds is a bare minimum according to industry standards).

Here is an account of our current staff, and our minimum staffing needs:

Existing staff:

Molly Sealund, full-time Science Technician

(groundskeeping, purchasing, facility support lab class support, oversee interns and volunteers, work-study students, facility maintenance schedules, and more)

Anders Vidstrand, part-time Science Technician (20 hours/week)

(grounds keeping, plant collections, labeling, Permaculture support and management, website updates, plant inventories, purchasing, lab class support, oversee interns and volunteers, and more)

Janet Zepel, full-time Clerical Assistant

(office management, scheduling, public contact, writing Pas, budget management, ENVMT support)

Additional staffing needs:

1. Reclassify Molly Sealund as “Facilities Coordinator” (or comparable title). New job duties would include coordinating with vendors, assessing facilities maintenance (built infrastructure, electrical, water), broadened supervisory capacity for interns and volunteers, extended lab support and supervision.

2. Upgrade Anders Vidstrand to full-time status, adding Greenhouse Technician to his current grounds management duties.
 3. Reclassify Janet Zepel to higher position, as she is currently doing many tasks outside and above her classification.
 4. Hire one new full-time groundskeeper to perform basic maintenance and upkeep of our 7.5 acre facility (weeding, pruning, irrigation repair, trail maintenance, signage, chipping, composting, and related duties).
 5. Receive funding for 6-10 student assistants each semester to assist instructors with lab classes.
- Currently there are:
 - two full time faculty members who teach 30-40% of our classes
 - over 20 part time instructors who teach approximately 60-70% of our classes (not including fee classes).
 - 1 full time Science Tech
 - 1 half-time Science Tech
 - 1 Clerical Assistant.
 - The department employs student aides and work study students and also offers internships and volunteer opportunities for both students and community members.

Staffing needs include:

- A full time instructor to decrease the reliance on part time instructors (see “Instructional support needs described earlier)
- A full-time Science Tech to help manage the facility and the greenhouses (see “Additional Staffing Needs described earlier)
- A full-time Facility Coordinator (see “Additional Staffing Needs described earlier)
- Reclassification of our full-time Clerical Assistant to a higher level (see “Additional Staffing Needs described earlier)
- A new full time groundskeeper to help maintain our 7.5 acres (see “Additional Staffing Needs described earlier)

Facility needs include:

- Upgrades to the electrical service on our grounds
- Improved ADA access to lab areas
- Improved ADA access to our path and trail network
- Redesign and construction of new nursery/propagation area
- Repairing damaged wooden gates surrounding the facility
- Repairing leaking water main valves around the facility
- Repairing broken irrigation systems on grounds, and upgrading old circuits
- Improving general horticultural maintenance on grounds

- Enlarging of present restrooms and adding restrooms near meadow to accommodate students and staff
- Installing an outdoor shower for chemical decontamination
- Maintaining and repairing greenhouse controls; providing greenhouse control training
- Purchasing chairs, tables, and lamps for the Horticulture library
- Purchasing new drafting tables and chairs for H-105
- Improving signage on the grounds to illustrate plant materials and map demo gardens
- Building a kiosk to provide facility orientation and information
- Expanding demonstration gardens for plant ID classes
- Improving access on all paths throughout the facility for students in lab classes
- Restriping parking lot and creating more parking spaces near the tennis courts

OUTREACH AND ARTICULATION:

The full time and adjunct horticultural instructors maintain close ties with the nursery and landscape industries. These connections provide us with access to employer needs, job opportunities, new products, and industry trends. Some of the organizations with which we interact include the Alameda County Master Gardeners, the APLD (Association of Professional Landscape Designers), the California Association of Nurserymen, Children's Fairyland, the CLCA, the College of Marin Environmental Horticulture Program, the Diablo Firesafe Council, the East Bay Regional Parks District, the Foothill College Landscape Horticulture Program, numerous Garden clubs, the Garden Conservancy, the International Society of Plant Propagators, the Irrigation Association, Oakland's Lakeside Park Gardens, the Markham Arboretum, the Tilden and UC Botanic Gardens, the Delta Bluegrass Company, the Richmond Greenwaste Recycle Yard, the Oakland Zoo, the City of Oakland Parks and Recreation Department, and UC Extension.

STUDENT LEARNING OUTCOMES *This information was not listed on the form given to the department chairs, therefore, this information is limited.*

On the course level, we have completed Student Learning Outcomes for all of our currently active classes. We are assessing all of our currently active classes on a three-year cycle (see attached assessment cycle and spreadsheet for details). Our Student Success rate since 2008 has averaged 75%, a strong number compared to the college average of 66% over the past four years. Our instructors revise their lectures, tests, and other assessments each semester, and stay current with professional trends.

Number of courses w/ outcomes - 100%

Number of courses with assessments – in progress, please see above.

PROGRAM OUTCOMES yes no **expected date of completion**

RECOMMENDATIONS:

Are recommendations connected to outcomes?

Date