

# SBCC Instructional Program Review

[Program Review Instructions and Guidelines](#)

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**Division:** Technologies  
**Unit:** Environmental Horticulture  
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## 1. Mission and Relation of the Instructional Program to the College

### 1. What is the mission of your unit?

The SBCC Environmental Horticulture (EH) Department's Mission is tightly bound to the California Education Code, which outlines the primary functions of all California Community Colleges as (1) offering academic and vocational instruction at the lower division level for both younger and older students, including those persons returning to school (§66010.4a.1) and advancing California's economic growth and global competitiveness through education, training, and services that contribute to continuous work-force improvement (§66010.4a.3). The EH Department's Mission also strongly reflects the mission of SBCC.

THE EH DEPT ADHERES TO THE CALIFORNIA EDUCATION CODE THROUGH THESE SPECIFIC DEPARTMENTAL MISSION FOCI:

- 1) Equip students with skills to succeed in the current and future horticultural industry,
- 2) Increase avenues for all students, including underrepresented student groups, to enter and remain in the EH program,
- 3) Provide opportunities for students to learn industry-relevant skills in horticulture and landscaping, with a special emphasis on sustainable techniques.
- 4) Provide opportunities to acquire skills with cutting-edge landscape and horticultural technology thereby providing students with real-world horticulture experiences and a seamless transition into a professional horticultural career.

THE EH DEPARTMENT ALSO CONTRIBUTES TO ECONOMIC GROWTH BY TRAINING STUDENTS TO BECOME PART OF A GROWING LABOR FORCE IN HORTICULTURE:

- 1) The State of California has an expanding landscape and horticulture labor market, continuing to increase at an average increase in jobs of 14% annually.
- 2) The horticulture job market was estimated to require approximately 10,000 new jobs in California by 2018.
- 3) Nursery workers rank among the top 50 fastest growing jobs in California and the Top 100 most prevalent job openings in California. In fact, nursery and greenhouse job openings are projected to continue, on average at 6,780 new jobs annually.
- 4) Occupational projections for the County of Santa Barbara predict an 11% increase in jobs in landscaping and groundskeeping and a 10% increase in jobs in nursery and greenhouse work for the period of 2008-2018.
- 5) The landscape architect job market continues to grow, and these positions pay an average of \$83,000 annually in SB County.

BY PROVIDING HANDS-ON TRAINING IN LANDSCAPING, NURSERY AND GREENHOUSE WORK, LANDSCAPE DESIGN, LANDSCAPE CONTRACTING AND RESTORATION ECOLOGY, THE EH DEPT MEETS THE INCREASING DEMAND FOR TRAINED HORTICULTURE PROFESSIONALS THROUGH ITS EDUCATIONAL PROGRAMS.

### 2. Identify or outline how your department/program contributes to the mission of the College.

*Please limit to a single paragraph.*

THE EH DEPARTMENT PROGRAM, AS ARTICULATED IN ITS MISSION, DIRECTLY ACHIEVES THE MISSION OF THE COLLEGE, WHICH IS TO:

- 1) Providing students with the occupational competencies and academic skills needed to advance their careers,
- 2) Meeting the educational needs of traditionally underserved groups,
- 3) Providing a program that supports economic development, and
- 4) Using and training students in sustainable landscaping practices.

THE EH DEPARTMENT ALSO CONTRIBUTES TO THE MISSION OF SBCC BY:

Responding to the horticultural community and its needs for trained landscapers and horticultural professionals by providing courses that emphasize acquisition of skills needed in the current market. Each horticulture course is structured to:

- 1) Foster hands-on experiences that provide skills useful in the current horticultural industry,
- 2) Inspire innovative, creative, critical thinking to solve horticultural problems,
- 3) Provide avenues and guidance for furthering their academic or professional career in horticulture, and
- 4) Instill a strong horticultural work ethic to continue the high-caliber skill level in local landscape and horticulture industries.

## 2. History

History (update) since the last program review.

**1a. Provide a brief overall history of program. Please remember this is for the general reader who may know nothing about your program.**

Beginning the early 1980s, the environmental horticulture program has grown to encompass 4 degree emphases, 1 certificate and 2 departmental skills competency awards. The course offerings have increased, overall, over time, and the approximate number of students with EH as their major increased early on and has stabilized at approximately 50 students.

**1b. Provide a history since last complete program review.**

Curriculum

Completed updates on all departmental COROs by deadline.

Developed and offered a new course, Advanced Permaculture Design, EH 109B

Continuous updating of curriculum with new research, methods.

Received funding to develop online course, Introduction to Horticulture, EH 110.

Collaborating with ESL to develop a new horticulture-content based course.

Developed and offered a new course, Advanced Green Gardener, non-credit, NC104.

Departmental technology

Expansion of water-conserving plant collections in instructional garden

Added signage to the department's instructional garden, for educational purposes.

Continue to update instructional garden irrigation system to cutting edge standards.

Continue to use Compost Tea as main source of fertilization in instructional garden.

Migrated all course materials to Canvas.

Facilities

Continued construction of small, demonstration natural garden shed

Beginning re-design of greenhouse irrigation systems and mist-house.

Professional Training

Participated in 5 permaculture design courses at Quail Springs

Led 5 horticulture-related projects while on sabbatical.

Led ongoing garden maintenance clinics for students

Outreach

Attended High School and College Career Fairs

Expanded enrollment outreach modes to include: course fliers, featured Events and email blitzes, facebook, instagram posts, snapchat posts, and public talks, to recruit new students to EH classes

Continue to collaborate with non-credit Green Gardener course, hosting a field trip and attending their graduation ceremony, to attract new students to the credit division of EH.

Oversaw on-campus student projects relating to horticulture and sustainability.

Collaborations – Ongoing and New

SBCC Culinary Arts, English, ESL, Biology, Design, Journalism, Photography, Dance, ART, and Personal Development Departments – use of Lifescape Garden for their classes.

SBCC Culinary Arts: Grow and deliver fresh vegetables to cafeteria/culinary classes

City of Santa Barbara, County of SB, and SBCC Continuing Ed –Green Gardener Class

SBCC Facilities-Grounds – Classes help with on-campus ground projects.

Lotusland – Internships, Field Trips, Exchange of Trade Information

San Marcos Growers – Field Trips, Internships, Exchange of Trade Information

Seaside Gardens – Field Trips

**Recruitment/Retention**

Continued articulation MOU with Prescott College, AZ.

Dual enrollment courses ongoing and revising/streamlining

Continued collaboration with Adult Ed's Green Gardener Course

**Staff**

Continue to seek and utilize all possible funding sources to support existing EH staff

Acquired Perkins funds for new Landscape Skills Tutor.

### 3. Statistical Data Analysis

Statistical data for the last three years will be provided by the Office of Institutional Assessment, Research and Planning by the start of the Fall semester. The data will include:

#### **Departmental WSCH**

- First census WSCH and FTES for the department
- First census WSCH and FTES by course

#### **1a. Write about enrollment trends that the department/program believes are important to its planning and resource needs, and comment on the department's/program's insights on why they are occurring.**

Enrollments were relatively low in 2016-2017 & the fall of 2017 compared to the period of 2008-2014, continuing the trend that began in 2008-2009. These drops in enrollment over the last 3-4 years are expected to continue for a few years, across disciplines. These reductions are slightly less dramatic in EH compared to other CTE programs, but still significant.

#### **1b. Describe how the department/program is responding to these changes.**

To mitigate student number reductions, EH continues to utilize these means:

Reduce course offerings. Courses normally taught once a year are now offered once every two years.

Continued outreach efforts in conjunction with Outreach Specialist

Development of EH's first online course in the works.

Continue a strong student worker crew including two Perkins-funded positions which deal directly with, and aid EH students.

Strong relationships with local industries and non-profits for internships and scholarships.

Continue to offer full complement of required EH courses. Offer elective courses that reach a significantly different student group and can serve as a recruitment tool.

Continue non-course avenues for students to enter the program (volunteer opportunities, special projects, paid positions, internships, Green Gardener Adult Ed transition).

Continue to seek non-college funding sources for reaching particular demographic groups including underrepresented groups, develop more collaboration with ESL program for those students interested in landscaping.

Create and offer hybrid courses to serve students desiring these, and to increase the number of in-person classes that can be held on campus in the EH classroom. **Student Statistical Data**

Most of the data for the following responses can be found in the [Program Review Data Library](#).

#### **2a. Successful Course Completion Rate**

The Successful Course Completion Rate is the percent of students receiving a grade of C or better, or a P for P/NP courses. This data can be found on the Outcomes tab.

Please discuss the data, identify any significant positive or negative indications and trends, and describe any strategies your department is using or considering relative to these outcomes.

EH student success rates hovered near 80% for the past year or so, higher in the summer due to smaller classes, where there is more focus on the part of the student and usually lower student to teacher ratios.

To increase success rates, the use of Starfish throughout the semester, for as many students as possible, is the main strategy for EH. Also, this year EH has funded a Landscape Skills Tutor who is available to help students hone landscaping skills and to help them with the academic knowledge needed for success, as well.

#### **2b. Successful Course Completion by Modality**

Examine the data on successful course completion by instructional method (face-to-face, fully online, and hybrid), both for the college overall, and for your department. This data can be found on the Outcomes tab.

Please discuss the data, identify any significant positive or negative indications and trends, including a comparison to college outcomes, and describe any strategies your department is using or considering relative to your outcomes.

All EH courses are taught in the face-to-face modality, so no comparisons could be made between modalities. However, we are developing our first online course for EH110 as a test to see if we can attract another population of students, and increase enrollment within the department, in this UC/CSU transferable, introductory horticulture course.

## **2c. Successful Course Completion by Student Equity Populations**

Examine the data on successful course completion by student equity populations. This data can be found on the Outcomes tab.

Please discuss the data, identify any significant positive or negative indications and trends, and describe any strategies your department is using or considering relative to these outcomes.

Due to the small class size (18-30) of EH courses, ethnicity data is fragmented. Whereas one year we may have a native american or african american student once, the next we may not, so data are not continuous and less meaningful. The two largest categories of ethnicities in EH are white and hispanic, and those success rates, over from 2014 - 2017 vascillate but mostly hover above 70%.

In my interpretation, the success outcome data is understandable and reasonable, with the vast majority (75-80%) succeeding and some (20-25%) not succeeding, due to varying circumstances that are out of the scope of what SBCC can do to help them success. That said, there is an apparent lower success rate for the hispanic student group and this is the margin EH could work on--these students are often working more than the white students, thus more tired and less focused in class, and tend to be quieter and less self-advocating.

I have students work in groups for a variety of tasks helps equalize ethnic disparities of engagement/self-advocacy. I also emphasize task-driven grading rather than just academic knowledge, which white students tend to be more used-to and better performing in.

## **2d. Degrees and Certificates**

On the "Awards by Major" tab, examine the data and trends for the college overall, and for your department.

Please discuss the data, identify any significant positive or negative indications and trends, and describe any strategies your department is using or considering relative to these outcomes.

The number of awards given in EH is usually rather low, and the data show that it oscillates between 1-3 some years and 4-7 other years. Because of these relatively low number of awards, no significant trends could be identified. Perhaps shorter-term degrees or certificates are needed to capture the actual success of EH students that is not captured by Awards or Certificates as they exist now -- many of our students take a few classes to gain skills and then move on in their career. In other words, an award is not that important to their career goals and thus the motivation to 'stick-it-out' for 2+ years for a degree can money lost due to being in school and not working. Shorter-term awards might streamline student's efforts to improve their career skills and help the college demonstrate the actual success rate that is not captured by current awards.

## **2e. Transfers**

The number of majors who transfer to a four-year college or university can be found on the "Transfers by Major" tab.

Please discuss the data, identify any significant positive or negative indications and trends, and describe any strategies your department is using or considering relative to these outcomes.

As in the awards data, there are relatively few transfer students in EH. For those that are wishing to transfer, EH can continue to work with the Transfer Center and articulation officer to make the information on transfer readily available to the student, and help them in their application to 4 year schools.

## **2f. CTE Earnings and Job Placement**

For Career Technical Education programs, please summarize and discuss the program completers' earnings information and/or job placement information (if available).

See the [CTE Launchboard](#), [Salary Surfer](#) or [Wage Tracker](#) for additional data regarding CTE program completers.

Current state statistical data indicate that, on average, landscapers and groundskeepers will earn approximately \$35-40k/year and the job market is expected to grow by approximately 18% annually.

## **2g. Additional Department-Specific Data**

Please provide and discuss any additional data unique to your department or program.

Continue to recruit and improve retention of EH students through outreach activities, including outreach through our Advisory Committee, high school fairs, working with local landscape industry, creating new courses, writing articles for landscaping magazines, and development of funds for outreach materials.

## **Student Learning Outcomes (SLO) Assessment**

- Student SLO performance reports

## **3a. Provide a brief description of your department's/program's analysis of the student performance data on the course, program and Institutional SLOs (ISLOs).**

Student performance data from CSLO, PSLOs and ISLOs has not changed dramatically in the past 3 years, with 80%+ students achieving course and programmatic benchmarks, as indicated by CSLOs and PSLOs, and 20% not.

**3b. Summarize the strategies your department/program has implemented to improve student achievement of the course SLOs, certificate, degree and/or program SLOs, and the ISLOs. Include the documented and/or perceived changes in student learning.**

EH department continues its multi-pronged approach to increase student achievement, including enhancing curriculum, closer monitoring of attendance for retention, use of Starfish and other Academic Counseling support, focus on essential vocational skills in courses, appropriate course scheduling. EH also continues to hone SLOs to better reflect the knowledge and skills needed by the changing horticulture industry, and to better capture student's success at achievement in these skills.

**3c. Review your department's/program's SLO Implementation Cycle Plan and indicate whether or not you are on target for its completion. Explain any changes to your SLO plan.**

Student performance is high as per CSLO, PSLO and ISLO data, all outcomes are being achieved with majority of students.

The EH department has completed the SLO Implementation Cycle, with all CSLOs and mapped to PSLOs and ISLOs, and all CIPs have been completed as well. All EH courses were updated this past spring and summer. EH is poised to begin the 2nd 3-year SLO cycle, beginning this fall 2018.

**Faculty Information**

- Faculty head count (contract and adjunct)
- TLU and FTEF totals (by contract and adjunct)
- Contract overload for department by year

**4. Where appropriate, explain how the faculty information noted above is affecting the department's ability to achieve its mission and/or objectives.**

Faculty Head Count (Contract and Adjunct)

EH continues to recruit, retain and effectively educate students with 1 contract

faculty and 6 adjunct faculty members. We removed one non-credit adjunct faculty to the department this last year, due to the formation of the School for Extended Learning.

TLU and FTEF Totals (by Contract and Adjunct)

TLU and FTEF totals are adequate at this time to achieve departmental mission and objectives. Further reduction in TLUs for adjuncts would require the 1 Contract faculty member (myself) to assume those classes, which would be overload and in most cases cost more than the adjuncts per hour – so it is best to keep the adjuncts teaching their classes for now. All contracts and adjuncts are only teaching required classes at present and foreseeable future, and those course offerings have been reduced too, but not eliminated (yearly courses now offered every two years).

**Department/Program Revenue and Expense Data**

- General Fund unrestricted and restricted budget (costs)
- Full-time equivalent (FTE) employees and costs
- Total expenditures per year
- Revenue generated by program (where appropriate)

**5. Where appropriate, use this information to identify your faculty, staff and resource needs.**

General Fund unrestricted and restricted budget (costs)

\$276,000.00 for 2016-2017

Full-time equivalent (FTE) employees and costs

\$135,000.00 for 2016-2017

Total expenditures per year

\$276,000.00 for 2016-2017

Total expenditures from departmental Instructional Supplies budget:

\$12,976.00 for 2016-2017

Revenue generated by program

\$1200-\$1500.00 by annual plant sale

In general, the EH Departmental budget is adequate for addressing all the needs of the EH department, and this was true for the current program review period. Instructional supply budgets have ebbed and flowed over the years, usually

hovering around 10k, which is adequate. Funding student workers to maintain our instructional garden (Lifescape Garden) has been more of a challenge, as the hourly EH budget has been reduced in recent years, including the year under review. More and more, we rely on Federal Work Study-funded students to complete the bulk of the instructional garden maintenance--this works, for the most part, but comes with a cost of almost continual training, as most FWS workers only remain for 1 semester, so we are manning our garden with unexperienced workers most of the time. A larger hourly budget would help, although I understand the lack of feasibility of that from the college's budget perspective. Ideally, the department would have a permanent part-time garden manager to create a more professional management system, under which FWS and hourly workers could plug in. I have requested that a number of times in program review, but as times have been tight, it has not been a priority for funding. All that said, we have made it work and the students, and public, still experience a well-organized garden, and well-supplied courses in EH.

## 4. Programs and Curriculum

**1a. All course curriculum is required to be reviewed by the department and the Curriculum Advisory Committee every five years as per State Ed Codes. It is the responsibility of the department chair to keep the curriculum records up to date. Courses not reviewed in a timely manner will not be scheduled and are subject to deactivation.**

Curriculum status should be updated. Verify that your department is on track in its review of curriculum. List the courses that you will need to update for the next year and the lead for each of those courses by [COMPLETING THIS FORM](#).

**1b. Student Learning Outcomes status should be updated. Verify that your department is on track in its SLO data collection and creation of Course Improvement Plans. List the courses that you need to collect data for this year and the lead for the Course Improvement Plan for each of those courses by [COMPLETING THIS FORM](#).**

☐ Check this box to confirm that you have verified the curriculum and that all CSLOs have been updated for your department.

## 5. Collaboration with Other Units Including Instruction, Student Services and/or Administrative Units

**1. Discuss any collaborative efforts you have undertaken with other units of the College. Offer an assessment of the successes and challenges in working with these units.**

SBCC Culinary Arts Dept, to provide fresh flowers, herbs and vegetables to the CA program.

SBCC English, Biology, Design, Journalism, Photography, and Art departments, providing the outdoor laboratory venue for many of their class exercises.

City of Santa Barbara, County of SB, and SBCC Adult Ed to provide a 15-week Green Gardener course to Adult Ed students, thereby equipping them with the skills and confidence to enter our full-semester, credit program.

SBCC Facilities-Grounds – various projects

Lotusland – Internships, Field Trips, Exchange of Trade Information

San Marcos Growers – Field Trips, Internships, Exchange of Trade Information

Construction Department – Grant Collaboration, Course Projects, Exchange of Trade Information.

Santa Barbara Botanic Garden – knowledge sharing, field trip, work projects

SBCC Center for Sustainability – joint projects, shared marketing for events

SBCC Students for Sustainability Club – assist in permaculture garden

SBCC Botany Club -share greenhouse space for student experiments/propagation, joint annual plant sale

## 6. Outreach Activities

**1. Discuss any activities or projects you have undertaken with other educational institutions (high schools, colleges or universities), the community and/or business/industry. Describe any new outreach activities that you are considering.**

Developing a VESL course for horticulture

Serving on the board of a permaculture research institute to attract more permaculture students

Working with Earth and Planetary Sciences, Grounds, and EH to develop a GIS map of school botanical resources.

Joint plant sale with the Botany Club

Working with the Mesa Architects group to involve EH classes in the maintenance of a public park site on the Mesa.

## 7. Recommendations for Improving the Effectiveness of the Program Review Procedure

1. List suggestions for changes that will make the program review process more helpful to your department.  
None at this time.

## 8. Program Review Template: Goals

List your unit's major goals and related objectives for the upcoming year. List one goal per row. Add new rows for goals as required. If not clear in your table, detail if and how you met the goals and objectives you set in the prior year.

Major Goals & Objectives for Unit

Priority	Goal	Links to College Goals & Plans <a href="#">College Plan 2009-2012</a> <a href="#">Dist. Technology Plan 2009-2012</a>	Office/Person Responsible for Completion	Objective	Anticipated Completion/Measure of Success	Status	Comment
3	Improve security of instructional garden		Mike Gonella	1.	1.	1.	1.
	Develop online EH110 course		Mike Gonella	1. Increase enrollment through DE course.	1. Course approved by state and offered with at least 20 students enrolling	1. In Progress	1. Developing course with other DE instructors and FRC/Kathy O'Connor, Curriculum Committee
	Get instructional garden smart controller online		Mike Gonella	1. Update educational technology related to landscape care	1. Irrigation system is working and used as a demonstration tool in classes	1. In Progress	1. This is doable in this time period.

## 9. Program Review Template: Staff

Staff Needs: List/summarize the needs of your unit below. List one position per line. Add new lines for positions as required.

In the description box, please note to which objective(s) from the Goals template the need relates.

Staff Needs

No data found.

## 10. Program Review Template: Faculty

Faculty Needs: List/summarize the needs of your unit below. List one position per line. Add new lines for positions as required.

Faculty Needs

No data found.



## 11. Program Review Template: TLU Augmentation

**TLU Augmentation:** List/summarize the needs of your unit below. List one TLU need per line. Add new lines for TLU needs as required.

### TLU Needs

No data found.

## 12. Program Review Template: Equipment

**Equipment Needs:** List/summarize the needs of your unit below. List one equipment item per line. Add new lines for equipment as required.

Technology items (hardware and software) should be listed on the following pages, and not here.

### Equipment Needs

No data found.

## 13. Program Review Template: Technology / Hardware

**Technology / Hardware Needs:** List/summarize the needs of your unit below. List one hardware item per line. Add new lines for hardware as required.

### Technology / Hardware Needs

No data found.

## 14. Program Review Template: Technology / Software

**Technology / Software Needs:** List/summarize the needs of your unit below. List one software item per line. Add new lines for software as required.

### Technology / Software Needs

No data found.

## 15. Program Review Template: Facilities

**Facilities Needs:** List/summarize the needs of your unit below. List one position per line. Add new lines for positions as required.

### Facilities Needs

No data found.

## 16. Program Review Template: Service Needs

**Service Request Needs:** List/summarize the service needs (Institutional Research, Marketing, Technical Training, etc.) of your unit below.

List one request per line. Add new lines for requests as required.

Category	Description
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## 17. Program Review Template: Other Needs

**Other Needs:** List/summarize the other needs (Duplication, Supplies, Travel, etc.) of your unit below.  
List one request per line. Add new lines for requests as required.

Category	Description	Cost
		\$