Comprehensive Program Review Report

Program Review - Ornamental Horticulture

Program Summary

2020-2021

Prepared by: Fernando Fernandez

What are the strengths of your area?: The primary strengths of the Ornamental Horticulture Program are:

1. The application of curriculum that is based on industry standards and meets the various needs of the local student population such as students wanting to complete a certificate to gain employment in the local industry, students wanting to complete an AS degree and transfer to a four year institution, and the needs of community members wanting to take courses for personal development and growth.

2. The utilization of the current horticulture facilities to provide practical training to all students in the program. All courses in the program incorporate laboratory activities that provide students an opportunity to apply the theory and concepts learned in lecture to practical projects that engage students in learning through "project-based" instruction.

3. All courses in the program are part of a scheduling sequence that allows students to complete a certificate, or an AS Degree in four semesters or less. Some courses in the program meet general education requirements, and most courses meet the California Pest Control Adviser's (PCA) examination requirements. The course sequence has been shared with the Counseling Division and staff members doing recruitment activities at the Tulare College Center.

4. The program provides opportunities for all students to participate in leadership development activities throughout the academic year. Students have the opportunity to participate as judges, organizers, tabulators, timekeepers and group leaders during FFA sectional and regional activities hosted at the Tulare College Center, or at the local high schools sponsoring FFA leadership events. Students have the opportunity to participate in activities and competitions sponsored by the Collegiate Agriculture Leaders organization. As members of the Ornamental Horticulture Club, students have the opportunity to serve the community by participating in community service activities.

5. The program now has a Lab Technician that provides the support to maintain and operate the Ornamental Horticulture Program facilities to provide clean and safe facilities for student learning at all times. The Technician also provides the support to prepare for hands-on-training activities for all students in the program.

What improvements are needed?: Improvements needed in the Ornamental Horticulture Program include:

1. Increase student enrollment in the program. The overall enrollment in the program during the 2019-2020 academic year was at 17.75 students per class. This is a slight increase of 0.44 students per class from the 2018-2019 academic year. These numbers reflect the enrollment from the "dual enrollment" classes at Exeter and Lindsay high schools. The overall change in enrollment for the program over the last academic year was not significant, therefore; the need to focus on student recruitment continues to be important.

2. Acquisition of instructional tools and equipment to serve the areas of landscape management, nursery management, general horticulture, and floral technology. The need to update or acquire replacement tools and equipment to support the laboratory activities and meet the student learner outcomes in multiple courses continues. This program need requires prioritization to have a three-year replacement schedule for tools and equipment needed for instruction in all classes in the program. Having a replacement schedule will allow for proper budgeting and use of district resources.

3. Add a drainage system inside the greenhouses and shade house. The greenhouses and shade house are a key component in the practical training of students. Those buildings were constructed without a drainage system. The lack of drainage causes the walkways in the buildings to become slippery and unsafe. The lack of drainage in these building adds a workload for faculty, lab technician, and students. A cleaning and sanitation schedule is currently maintained by faculty, lab technician, and students in order to keep walkways clean and safe for students in the program and visitors to the OH Unit.

4. Permanent enclosure of the Ornamental Horticulture laboratory building. This building was constructed with open sides and without cooling and heating systems. The open portion of the building was temporarily enclosed with shade cloth. The shade cloth provides minimal protection from the elements, and vehicle noise pollution coming from Bardsley Avenue. In addition, the shade cloth has reduced the light intensity in the building. Full enclosure of the building is needed to provide a safe learning environment to conduct laboratory activities year-round. It is difficult to conduct educational activities in this building during the months of the year when the weather is cold or wet.

5. Increase drainage on walkways on the OH unit facilities. Some of the walkways on the OH Unit get extremely wet and slippery during the Fall and winter months. This is due to the lack of drainage. The wet surface on these walkways creates a safety issue for students, community visitors, faculty, and staff. The problem can be resolved by resurfacing the affected areas with material that allows for additional drainage of excess water during the wet months of the year.

6. Change the lighting in the Ornamental Horticulture Lab Building. The lighting in this room is not adequate for instruction during part of the day. Part of the room walls are covered with shade cloth which minimizes the natural light coming into the room. The light intensity in the room needs to increase to provide a safe working environment in the lab throughout the year.
Describe any external opportunities or challenges.: Some of the external opportunities for the Ornamental Horticulture Program include:

1. Potential to increase student outreach and recruitment from local area high schools. The high schools within the service area of the district continue to maintain strong Agricultural Education programs. This presents an opportunity to recruit students from those programs. A dialog between college and high school representatives and stakeholders from the service area needs to continue to explore the options of "dual enrollment" and "articulation" between college and high school courses. Currently, Lindsay High School and Exeter High School have "dual enrollment" agreements for several courses in the program.

2. Potential to increase enrollment in the program due to increased industry need for well-trained individuals, and the creation of the Plant Science for Transfer AS Degree (AS-T). The Plant Science (AS-T) course requirements include several horticulture courses. As this new degree is implemented, student enrollment in the Plant Science and Horticulture programs has the potential to increase. The data from Fall 2018 and Fall 2019 shows that two courses in the program have increased due to the AS-T requirements. OH 002- Plant Identification 1 in Fall 2018, and OH 105- Plant Propagation in Fall 2019 have shown an increase in enrollment. The data for the Fall 2020 semester for the OH 002 Plant Identification 1 and the OH 105- Plant Propagation classes shows a reduction of 3 students in the OH 002 class and 10 students in the OH 105 class. It is suspected that the reduction in enrollment is due to the Long-Distance Learning Model that is being implemented during the Fall 2020 semester due to the COVID 19 restrictions and guidelines.

3. Potential to develop and offer Community Education classes through the Training Resource Center. These classes can provide an opportunity for individuals in the community to take short term classes to learn or improve specific horticulture skills. Topics for these classes may include: landscape irrigation maintenance and repair, lawn fertilization, planting trees and shrubs, pruning roses, etc.

4. Increase the exposure of the program to the community at large. The Horticulture Facilities have the potential to be utilized by community groups such as the Tulare County Master Gardeners, Community Horticulture Clubs, and other community groups interested in offering community education activities or workshops in a central location. An invitation has been extended to the Tulare Master Gardeners to meet with program faculty and explore the possibilities of collaborating in planning and implementing community activities using the COS Horticulture facilities. Due to the COVID 19 guidelines and restrictions community activities will not take place during the current academic year. The plan is to continue with these activities in the future.

External challenges of the Horticulture Program include:

1. The ability to offer both day and evening classes to accommodate a larger student population. Most students taking courses to meet the requirements of the California PCA exam, or to complete a certificate, prefer to take evening classes. Many of the

horticulture classes meet the PCA exam requirement, however; it is difficult to schedule evening classes due to lack of available adjunct faculty.
Overall SLO Achievement: Data from the Fall 2019 semester show an overall course success rate of 81%. When the data is desegregated by gender, it shows a 100% success rate for female students and 73% success rate for male students. The data for the Spring 2020 semester shows a success rate of 77% for students in the Landscape Design, landscape Management and Ornamental Horticulture programs. The desegregated data for gender shows a success rate of 73% for female students and 79% for male students. The data for the Fall 2019 semester supports the changes made to the program to support the nontraditional student. It is difficult to interpret the data for the Spring 2020 semester due to the drastic change in instruction due to the COVID 19 restrictions. The program will continue to engage students in "learning by doing" activities.
Changes Based on SLO Achievement: Based on SLO assessments, the current student population learns best by implementing a "Project Based" approach to reinforce the primary concepts of the curriculum. Instructional changes continue to be made in multiple courses to provide opportunities for students to "learn by doing" and provide opportunities for students to practice written and verbal communication skills. Instructional changes are being implemented during the Fall 2018 semester in the following courses: OH 105- Plant Propagation, OH 1- Basic Ornamental Horticulture, and in OH 2- Plant Identification 1. Strategies include providing additional time to complete Lab Assignments, checking that students are progressing in the completion of written assignments by asking students to report on their progress on a weekly basis, and referring students to the Student Success Center and the Writing Center. Rubrics for oral presentations are reviewed with students when the assignments are given.
Overall PLO Achievement: During the Fall 2019 semester, 80.7% of the students in the Landscape Management, Landscape Design and Ornamental Horticulture programs met the standards. In the Spring 2020 semester, 76.5 of the students in those programs met the standards and 21.3% of the students in those programs requested an EW grade due to challenges with Long Distance Learning. The greatest challenge for most students continues to be communication.
Changes Based on PLO Achievement: The following changes have been made and are now being implemented:

1). Additional time is taken to review project guidelines and scoring rubrics in all classes. 2). A lesson is done in OH 001 Introduction to Horticulture Science and in OH 105 Plant Propagation on how to access resources available online and through the library. 3). Time is provided as part of the instruction in the listed classes to edit individual writing projects where students will edit each other's work. 4). Student tutors are available to help students on a one-on-one basis on individual projects. Tutors are available to assist all students that request assistance. 5). The course outline for OH 001 was submitted for General Education requirement credit and was approved for AREA B: Natural Science.
Outcome cycle evaluation: The outcome assessment cycle for all classes and all programs in the Unit have been updated.

Action: Curriculum Modification

Provide students with effective lessons to teach the area content using Canvas as the Distance Learning tool.

Leave Blank:
Implementation Timeline: 2020 - 2021
Leave Blank:
Leave Blank:
Identify related course/program outcomes: District Objective 2.4 - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points.
Person(s) Responsible (Name and Position): F. Fernandez, Program Faculty
Rationale (With supporting data): COVID 19 restrictions limit the instruction using face to face lessons. Canvas can be an effective teaching tool if the content for a lesson or unit is well organized and allows for student engagement. Lessons to teach the content in the program need to be developed because none of the classes in the Ornamental; Horticulture program have been offered through Distance Learning.
Priority: High
Safety Issue: No
External Mandate: No
Safety/Mandate Explanation:

Resources Description

Personnel - Faculty - Time for faculty in the program to develop teaching Modules in Canvas that can be used effectively using Distance Leaning. (Active)

Why is this resource required for this action?: Classes in the program have traditionally been offered only face to face.

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The use of a hybrid model where the lecture portion of the class is through Distance Learning using Canvas, and the Labs are done face to face, requires lessons in Canvas to allow the faculty to meet students in small groups for labs to meet COVID 19 guidelines.
Notes (optional):
Cost of Request (Nothing will be funded over the amount listed.): 5000

Link Actions to District Objectives

District Objectives: 2018-2021
District Objective 1.1 - The District will increase FTES by 1.75% over the three years
District Objective 2.1 - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years
District Objective 2.4 - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points
District Objective 4.1 - Increase the use of data for decision-making at the District and department/unit level
District Objective 4.2 - Improve organizational effectiveness by strengthening operations of and communication between District departments, divisions, and constituents
District Objective 4.3 - College of the Sequoias Board of Trustees, administration, faculty, and staff will engage in best practices and staff development to sustain effective operational systems for institutional assessment and continuous improvement.

Action: Technology Upgrade

Provide students in the nursery management and landscape design programs practical experience in the use of the specialized hardware and software used by industry in Nursery Management and Landscape Design.

Leave Blank:
Implementation Timeline: 2020 - 2021
Leave Blank:
Leave Blank:
Identify related course/program outcomes: PLO- Communicate with the public and colleagues utilizing a variety of digital applications.

OH 204 SLO- Given a set of plants and an area in the nursery, students will be able to prepare a sales demonstration for the public. Students will be evaluated on their ability to select and prepare plant material for sale including plant selection, labeling, pricing, and presentation. Minimum of 90% of the plants selected by students must be of market quality and size based on industry standards.

OH 3 SLO- Given 50 plants or plant samples, students will be able to identify and label those plants with 70% accuracy.

OH 7 and OH 206 SLO-Given a landscape design as an electronic file, students will be able to print the design with a design printer at 90% efficiency and accuracy.

OH 7 SLO- Given a set of guidelines, students will be able to design a landscape for a selected residential site with a score of 70% on a rubric based on industry standards.

OH 206 SLO- Given all equipment and materials, students will be able to create a plant list for a landscape design plan that will include a plant key, common and botanical names of plants, and the quantity of each species included on the master plan.

OH 206 and OH 7 SLO- Given needed hardware and software, students will be able to produce/draw, label, edit, and print a quality residential landscape master plan with a minimum score of 70% on a rubric based on industry standards.
Person(s) Responsible (Name and Position): Program Faculty, Agriculture Division Chair, Agriculture Division Dean
Rationale (With supporting data): The laptops used to manage the printing of plant labels for lab activities, manage the control systems for the greenhouses and manage lessons for plant identification, landscape drafting, and landscape design are over 4

years old and work slow due to a software upgrade.
This resource is needed to maintain the training of students relevant to the current industry standards. Specialized software and hardware are in place for the training of students. This action is needed to allow students and faculty to continue practicing the skills required by industry.
Priority: High
Safety Issue: No
External Mandate: No
Safety/Mandate Explanation:

Resources Description

Technology - Laptops (Active)

Why is this resource required for this action?: The laptops are used to access specialized software to conduct lessons and lab activities in the following classes: OH 107- Landscape Design, OH 218- Xeriscape: Water Conservation, OH 2- Plant Identification 1, OH 3- Plant Identification 2, OH 1- Introduction to Horticultural Science, OH 109- Landscape Maintenance, OH 105- Plant Propagation, and OH 204- Nursery and Greenhouse Production. The current laptops are working slow due to software upgrades.
Notes (optional):
Cost of Request (Nothing will be funded over the amount listed.): 5000

Link Actions to District Objectives

District Objectives: 2018-2021
District Objective 1.1 - The District will increase FTES by 1.75% over the three years
District Objective 2.1 - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years
District Objective 2.2 - Increase the number of students who transfer to a four-year institution by 10 percent over three years
District Objective 2.4 - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

Action: Tools and equipment

Provide students with proper training in the operation and safety of tools and equipment based on current industry standards in landscape maintenance and management, nursery production and management, and the floral design industry.

Leave Blank: Continued Action
Implementation Timeline: 2020 - 2021
Leave Blank:
Leave Blank:
Identify related course/program outcomes: OH 109- Given an area of turfgrass, students will be able to edge and mow the turf to the specifications called by each grass type as discussed in class.

OH 1- Given all soil components, students will be able to measure components and mix 3 types of organic soil mixes used to propagate or grow plants in containers to industry standards.

OH 210- Given a fertilizer spreader and a bag of fertilizer, students will be able to calibrate the spreader and apply the fertilizer to a given turf area to the instructor's satisfaction, based on the spreader's standard recommendations, and the fertilizer label recommendations.

OH 111- Given cut floral materials, students will be able to design and construct floral designs that are representative of round, western line, vase, and wear and carry principles to a level that is industry standard.

PLO- Exhibit safe and appropriate practices in the use of equipment and tools in the landscape.

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PLO- Prepare appropriate growth media and utilize common horticultural techniques and practices to propagate and produce ornamental plants in containers.

PLO- Identify and classify common landscape plants utilized in the climate zones of the Central Valley, and describe their cultural requirements.
Person(s) Responsible (Name and Position): Program Faculty, Agriculture Division Dean, Agriculture Division Chair
Rationale (With supporting data): The Ornamental Horticulture facilities at the Tulare College Center were designed with input from members of the horticulture industry. The facilities allow for the practical hands-on training of students in the program based on current industry standards and needs. Equipment and tools are needed to provide practical training to students based on current industry requirements.
Priority: High
Safety Issue: Yes
External Mandate: No
Safety/Mandate Explanation:

Resources Description

Equipment - Instructional - Set of landscape pruning ladders (Active)
Why is this resource required for this action?: Ladders are used in training students to prune landscape trees. A limited number of ladders is currently available in the program. Additional ladders are needed to conduct the assessment of SLO's in courses that are part of the Landscape Management program.
Notes (optional):
Cost of Request (Nothing will be funded over the amount listed.): 3500

Link Actions to District Objectives

District Objectives: 2018-2021
District Objective 2.1 - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years
District Objective 2.4 - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

District Objectives: 2013-2015
2013-2015: District Objective #7 - District Objective #7 for 2013 - 2015: Allocate resources based on an accountable and systematic District-wide planning and budget development process that links this allocation to Institutional Program Reviews and the Strategic Plan.

District Objectives: 2015-2018
District Objectives - 2.2 - Increase the number of students who earn an associate degree or certificate annually.
District Objectives - 2.4 - Increase Career Technical Education course success rates and program completion annually.
District Objectives - 3.1 - Reduce the achievement gap of disproportionately impacted student groups annually, as identified in the Student Equity Plan.
District Objectives - 4.2 -Improve the efficiency, effectiveness and communication of human, physical, technological, and financial resources to advance the District Mission.

Action: California Pest Control Advisers Exam Requirements

Provide students with a complete, current list of courses that meet the requirements for the California Pest Control Advisers examination.

Leave Blank:
Implementation Timeline: 2019 - 2020

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Leave Blank:
Leave Blank:
Identify related course/program outcomes: District Objective 2.4 - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points.
Person(s) Responsible (Name and Position): Agriculture Division Faculty, Agriculture Division Chair, Agriculture Division Dean
Rationale (With supporting data): The number of students taking classes to meet the requirements to take the state exam to become a California Pest Control Adviser continues to remain constant based on current enrollment data. Students taking agriculture courses to meet the state requirements for the PCA examination do not have access to a complete list of courses in the Agriculture Division that clearly identifies all courses that qualify for the PCA licensing examination. Creating a current list of courses and making the list available to students will allow students to schedule courses based on the specific needs. It will also allow counselors to better guide students through the requirements of the PCA examination.
Priority: Medium
Safety Issue: No
External Mandate: Yes
Safety/Mandate Explanation: The state of California requires that students take a specific number of units in various categories to qualify to take the state exam to become a licensed pest control adviser. When students are not able to schedule classes due to lack of information, it prolongs the time that it takes for students to meet the state requirements.

Update on Action

Updates

Update Year: 2020 - 2021 10/13/2020
Status: Continue Action Next Year
This action was not addressed due to COVID 19 restrictions. The action will continue.
Impact on District Objectives/Unit Outcomes (Not Required):

Resources Description

Personnel - Faculty - Time for faculty in the Agriculture Division to review the California Pest Control Advisers (PCA) examination requirements and create a list of all courses in the division that meet the requirements of the state. (Active)
Why is this resource required for this action?: This resource is needed to provide faculty the time to prepare a list of courses that meet the state requirements for the PCA examination. The list will become available to students in order that they properly schedule required courses. In addition, the list will become available to counselors to be used as a guidance tool with those students seeking information on PCA examination requirements.
Notes (optional):
Cost of Request (Nothing will be funded over the amount listed.):

Link Actions to District Objectives

District Objectives: 2018-2021
District Objective 1.1 - The District will increase FTES by 1.75% over the three years
District Objective 2.4 - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points
District Objective 4.1 - Increase the use of data for decision-making at the District and department/unit level
District Objective 4.2 - Improve organizational effectiveness by strengthening operations of and communication between District departments, divisions, and constituents
District Objective 4.3 - College of the Sequoias Board of Trustees, administration, faculty, and staff will engage in best practices and staff development to sustain effective operational systems for institutional assessment and continuous improvement.

Action: Equipment Maintenance and Repair

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Provide safe instructional equipment to conduct practical laboratory activities to train students in the program based on current industry standards.

Leave Blank:

Implementation Timeline: 2019 - 2020
Leave Blank: 04/15/2020
Leave Blank:
Identify related course/program outcomes: OH 109- Given an area of turfgrass, students will be able to edge and mow the turf to the specifications called by each grass type as discussed in class.

OH 1- Given all soil components, students will be able to measure components and mix 3 types of organic soil mixes used to propagate or grow plants in containers to industry standards.

OH 210- Given a fertilizer spreader and a bag of fertilizer, students will be able to calibrate the spreader and apply the fertilizer to a given turf area to the instructor's satisfaction, based on the spreader's standard recommendations, and the fertilizer label recommendations.

PLO- Exhibit safe and appropriate practices in the use of equipment and tools in the landscape.
Person(s) Responsible (Name and Position): Program Faculty, Agriculture Division Chair, Agriculture Division Dean
Rationale (With supporting data): Currently, the OH Program has a working budget, but the budget does not clearly identify the necessary funds to maintain, repair, or replace equipment in the program.
Priority: High
Safety Issue: Yes
External Mandate: No
Safety/Mandate Explanation: Equipment used to conduct practical training laboratory activities in all courses of the program needs to be maintained in proper working condition to provide safe training to students.

Update on Action

Updates

Update Year: 2020 - 2021 10/13/2020
Status: Continue Action Next Year
This action was not addressed during the last academic year due to COVID 19 restrictions. The action will continue.
Impact on District Objectives/Unit Outcomes (Not Required):

Resources Description

Personnel - Faculty - Time for faculty to evaluate equipment maintenance, repair and replacement needs in order to develop a three year plan with estimated costs to maintain, repair, or replace the equipment in the program. (Active)
Why is this resource required for this action?: This resource is needed to properly develop a working budget that accurate reflects the total expenses of the program and maximize the use of district resources.
Notes (optional):
Cost of Request (Nothing will be funded over the amount listed.):

Link Actions to District Objectives

District Objectives: 2018-2021
District Objective 2.1 - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years
District Objective 2.2 - Increase the number of students who transfer to a four-year institution by 10 percent over three years
District Objective 2.4 - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points
District Objective 4.1 - Increase the use of data for decision-making at the District and department/unit level

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District Objective 4.2 - Improve organizational effectiveness by strengthening operations of and communication between District departments, divisions, and constituents

District Objective 4.3 - College of the Sequoias Board of Trustees, administration, faculty, and staff will engage in best practices and staff development to sustain effective operational systems for institutional assessment and continuous improvement.

Action: Nursery Watering Stations

Provide students with the training to grow nursery plant material and in the operation and management of nursery plant watering schedules.

Leave Blank:

Implementation Timeline: 2019 - 2020
Leave Blank: 03/30/2020
Leave Blank:
Identify related course/program outcomes: OH 204 SLO- Given a set of 20 plants, students will be able to weed, fertilize and water all plants. Student will perform the skills to industry standards and satisfaction of the instructor.

OH 2 SLO- Given 50 plants or plant samples, students will be able to identify those plants with 70% accuracy.

OH 105 SLO- Given a set of stock plants and all materials, students will be able to harvest propagation material and make 25 semi-hardwood cuttings to industry standards.

PLO- Given a set of 30 plants, students will be able to classify those plants into classification categories of trees, shrubs, ground covers, flowering perennials, and annuals with a minimum of 70% accuracy.

PLO- Identify and classify common landscape plants utilized in the climate zones of the Central Valley, and describe their cultural requirements.
Person(s) Responsible (Name and Position): Program Faculty, Agriculture Division Chair, Agriculture Division Dean
Rationale (With supporting data): The nursery industry continues to employ well trained employees with the skills to grow healthy plant material. Plant watering is a skill always in high demand in the industry. The OH Program is limited in the number of watering stations that are equipped to water plant material by hand. Hose reels equipped with hoses, water wands and nozzles are needed to train students with the skills necessary to enter the labor force.
Priority: High
Safety Issue: Yes
External Mandate: No
Safety/Mandate Explanation: Having strategically placed nursery watering stations, students will not have to move water hoses from one location to another. This will minimize the wear and tear on the hoses and the physical stress on students.

Update on Action

Updates

Update Year: 2020 - 2021 10/13/2020
Status: Action Completed
Hose reels and hoses were purchased and installed in all greenhouses and key areas of the nursery. Proper training of students in the watering of plant material and management of watering stations is taking place.
Impact on District Objectives/Unit Outcomes (Not Required):

Resources Description

Equipment - Instructional - Hose reels, water hoses, water wands, and water nozzles. (Active)
Why is this resource required for this action?: This resource is needed to provide adequate equipment to train students to meet course and program standards requiring practical skills in plant production, care, handling and identification.
Notes (optional):
Cost of Request (Nothing will be funded over the amount listed.): 8500

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Link Actions to District Objectives

District Objectives: 2018-2021
District Objective 2.1 - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years
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District Objective 2.4 - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

Action: Greenhouse Cooling Systems

Provide clean, safe functional greenhouse facilities for student practical laboratory activities and projects.

Leave Blank:
Implementation Timeline: 2019 - 2020
Leave Blank:
Leave Blank:
Identify related course/program outcomes:
Person(s) Responsible (Name and Position): Program Faculty, Agriculture Division Chair, Agriculture Division Dean, Dean of Facilities.
Rationale (With supporting data):
Priority: High
Safety Issue: Yes
External Mandate: No
Safety/Mandate Explanation: The pads that are part of the cooling systems in the greenhouses are the original pads installed seven years ago. The carbonate buildup on the surface of the pads has reduced the opening of the pads and does not allow for proper water and air flow. Water dripping from the cooling system to the greenhouse walkways creates an environment for algae growth on the walkways. The walkways become slippery creating a hazard for students and any person working inside the greenhouses.

Update on Action

Updates

Update Year: 2020 - 2021 10/13/2020
Status: Action Completed
Panels for cooling systems in all greenhouses have been replaced. As of the start of the Fall 2020 semester, all cooling systems are now functioning properly in all greenhouses.
Impact on District Objectives/Unit Outcomes (Not Required):

Resources Description

Facilities - Replacement panels for evaporative cooling systems in all greenhouses. (Active)
Why is this resource required for this action?: This resource is needed to provide adequate facilities to train students to meet course and program standards requiring practical skills in plant production, care, handling and identification.
Notes (optional):
Cost of Request (Nothing will be funded over the amount listed.): 6000

Link Actions to District Objectives

District Objectives: 2018-2021
District Objective 2.4 - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points

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District Objective 4.1 - Increase the use of data for decision-making at the District and department/unit level
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