Comprehensive Program Review Report



Program Review - Ornamental Horticulture

Program Summary

2023-2024

Prepared by: Fernando Fernandez

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

- 1. Curriculum implemented in the program has academic rigor with emphasis on practical industry standards. It meets the needs of the current student population including 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 community members wanting to take courses for personal growth and development.
- 2. The program facilities are maintained to provide "hands-on-training" to all students in the program. Courses in the program incorporate laboratory activities for students to apply the theory and concepts learned in lectures and class demonstrations to practical projects that engage students in learning through "project-based" instruction.
- 3. 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. Many courses meet the California Pest Control Adviser's (PCA) examination requirements. The scheduling sequence is shared with the Counseling Division and college staff members doing recruitment activities across the college district.
- 4. The program provides opportunities for students to participate in leadership development activities. Students have the opportunity to participate as judges, organizers, tabulators, timekeepers and group leaders for FFA sectional and regional activities hosted at the Tulare College Center, or at local high schools. 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 in community service activities.
- 5. A laboratory technician provides support to maintain and operate the program facilities. Facilities are maintained to provide a clean and safe learning environment for students throughout the year. The technician also provides support to maintain, and prepare tools and equipment necessary for practical laboratory activities.

What improvements are needed?: The following areas of improvement have been identified in the program:

- 1. Increase student enrollment in the program. A Comparison of enrollment data between Fall 2022 and Fall 2023 semesters, indicates that student enrollment at the Tulare College Center increased by 25.0%, and enrollment in "dual enrollment" classes at the local high schools decreased by 16.0%. The average class enrollment during the Fall 2023 semester is 13.3 students. The average class size number includes the enrollment from the "dual enrollment" classes at Exeter and Lindsay high schools. Student recruitment needs to continue to be a priority during the 2023-2024 academic year.
- 2. Acquisition of instructional tools and equipment to serve the areas of landscape management, nursery management, general horticulture, and floral technology. The need to maintain, update or replace 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. The greenhouses and shade house 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.

- 4. Increase drainage on walkways around the OH unit facilities. Some of the walkways around the facilities 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 drainage of excess water during the wet months of the year.
- 5. Reestablish connection of greenhouse system controllers and computer software to manage greenhouse systems using the computer in Nursery Management. The greenhouse system controllers are hard wired to a computer located in the Nursery Management building. A fault in the wiring prevents the computer to connect to the controllers. The lack of connection prevents the use of the computer software to manage the greenhouses. It also prevents the use of the system to train students.

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 the local area. The high schools within the district service area continue to maintain strong Agricultural Education programs. This presents an opportunity to recruit students from those programs. Dialog between college and high school representatives and stakeholders from the service area continues to explore the options of "dual enrollment" and "articulation" of college courses. Lindsay high school and Exeter high school have "dual enrollment" agreements for for courses in the program.
- 2. Potential to increase enrollment in the program by focusing student recruitment for courses that are part of the Plant Science for Transfer AS Degree (AS-T), and courses that meet the requirement to take the PCA exam. Recruitment efforts are needed to promote courses to incoming students from the local high schools and re-entry students working in industry.
- 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, and other community groups and organizations interested in offering educational activities or workshops on campus. The current facilities provide the opportunity to have evening classes and activities at the OH unit.

External challenges of the Horticulture Program include:

1. The ability to offer both day and evening classes to accommodate a larger student population. Many 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: During the 2022-2023 academic year, 18 SLO's in 5 courses were assessed. The student assessment data shows a success rate of 87.7%. In 2 out of 18 SLO's, students did not meet the outcome goal.

Assessment results indicate that students in the program are performing well in skill demonstration activities, but need to improve performance in assignments and tasks requiring time management and academic rigor. A noticeable trend is that students that use assignment scorecards, and students receiving help from student tutors increased their performance levels.

Changes Based on SLO Achievement: Student achievement shows that "Project Based" instruction is working for most students in the program. The following strategies are having a positive impact on student success:

- 1. Providing students with additional time to complete lab assignments.
- 2. Weekly checks to ensure that students are progressing in the completion

of assignments and individual projects.

- 3. Referring students to the Student Success Center and the Writing Center.
- 4. Having student tutors available to help individual students.
- 5. Using rubrics for oral presentations, class projects and class assignments.

The changes to be implemented this year are:

- 1. Continue coaching students to use project and assignment score cards to plan and manage their work.
- 2. Put emphasis on verbal and written communication skills.
- 3. Coach students to improve time management skills.

Overall PLO Achievement: During the 2022-2023 academic year, 11 PLO's were assessed. The average PLO achievement rate for the Landscape Management and Ornamental Horticulture certificates and degrees is 90%. The lowest student achievement rates are in the areas of pesticide application and safety at 75%. Attendance records from courses related to the subject matter show that attendance is a factor in the success rate of students mastering the PLOs. Attendance and communication remain the primary challenges for some students in the program.

Changes Based on PLO Achievement: The following strategies will continue to be implemented:

1). Additional time is taken to review project guidelines and scoring rubrics in all classes. 2). A presentation is done, in all classes, on how to access resources available on campus and online. 3). Student tutors are available to help students on an individual basis to complete projects and assignments. 4). The OH Lab Technician is available to help students access needed resources at the OH facilities to complete individual projects. 5). Students in OH 001 visit the library as part of the research project planning process. Students are encouraged to meet the instructors during office hours to review assignments, or seek individual help.

Outcome cycle evaluation: The outcome assessment cycle for most certificates and degrees has been updated. The outcomes for the Floral Technology Skills certificate need to be assessed. Adjunct faculty teaching the courses in the Floral Technology certificate need to be trained to develop an outcome cycle evaluation and to complete the assessments.

Action: Student Recruitment

Increase recruitment efforts targeting students interested in the Ornamental Horticulture industry and related fields. Program faculty will collaborate with college staff dedicated to promote CTE programs or conduct outreach activities to increase the promotion of the OH Program and recruitment of students. This will be done by participating in college outreach activities, facilitating OH Unit tours requested by high school programs, and participating in other college activities related to student recruitment.

Leave Blank: New Action

Implementation Timeline: 2020 - 2021, 2021 - 2022, 2022 - 2023, 2023 - 2024

Leave Blank: Leave Blank:

Identify related course/program outcomes: PLO- Identify and classify plant material, describe its usage, and cultural practices.

- PLO- Prepare appropriate growth media for propagation techniques and growing container plant material.
- PLO- Exhibit safe and appropriate practices for the use of equipment and tools in the landscape.
- PLO- Exhibit appropriate installation and cultural care practices for an aesthetically pleasing landscape.
- PLO- Communicate with the public and colleagues utilizing a variety of digital applications.

Person(s) Responsible (Name and Position): Program Faculty, Agriculture Division Chair, Agriculture Division Dean, Rationale (With supporting data): A primary need of the Ornamental Horticulture Program is to increase student enrollment. 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. Efforts need to be placed on the to recruitment of students from all high schools within the college service area. In addition, recruitment efforts should also focus on the needs of reentry students in the surrounding communities.

Priority: High **Safety Issue:** No

External Mandate: No **Safety/Mandate Explanation:**

Update on Action

Updates

Update Year: 2022 - 2023 09/16/2022

Status: Continue Action Next Year

The enrollment data from Fall 2022 shows a 20% increase in enrollment compared to Fall 2021. This increase might be an indicator that the recruitment efforts by staff and faculty are working. It could also be an indicator that students are ready to return to 100% face-to-face instruction. This action will continue into the next academic year.

Impact on District Objectives/Unit Outcomes (Not Required):

Resources Description

Facilities - Time from staff and faculty to meet and develop goals and a plan for the year. In addition, staff and faculty time and facilities are needed to meet and plan, coordinate and implement recruitment and outreach activities. (Active)

Why is this resource required for this action?: this resource is needed to promote the Ornamental Horticulture Program and increase student enrollment.

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 3000

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 2.3 - By 2021, increase the percentage of students who complete transfer-level English by 15 percentage points and transfer-level math by 10 percentage point with their first year.

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.

District Objectives: 2015-2018

District Objectives - 1.1 - Increase overall enrollment by 1.75% annually

District Objectives - 2.1 - Increase the number of students who are transfer-prepared annually.

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.

District Objectives: 2021-2025

District Objective 1.1 - The District will increase FTES 2% from 2021 to 2025.

District Objective 2.1 - Increase the number of students who earn an associate degree or certificate (CTE and non-CTE) by 5% from 2021-2025.

District Objective 2.2 - Increase the number of students who are transfer-ready by 15% and students who transfer to four-year institutions by 10% from 2021-2025.

District Objective 2.4 - Increase the percentage of CTE students who achieve their employment objectives by five percentage points (job closely related to field of study and

attainment of a livable wage) and the number of CTE students who successfully complete 9+ CTE units in a single year by 10% from 2021-2025.

District Objective 3.1 - Reduce equity gaps in course success rates across all departments by 40% from 2021-2025.

District Objective 4.1 - Increase the effective use of data and transparency in decision making at all institutional levels from 2021-2025.

District Objective 4.2 - Improve communication practices needed to support organizational effectiveness and continuous improvement across all District units and constituents from 2021-2025.

Action: Greenhouse Management System

Provide students in the program practical training and experience in growing a diversity of plant material using industry standards. Provide a safe learning environment to conduct laboratory activities to support student learning and achievement.

Leave Blank:

Implementation Timeline: 2023 - 2024

Leave Blank: Leave Blank:

Identify related course/program outcomes: 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.

OH 001- Propagation. Given all materials, students will be able to demonstrate 2 vegetative and seed propagation techniques utilized to propagate common ornamental plants to industry standards.

OH 001- Experimental Research. Given a set of guidelines, students will be able to conduct research experiment and summarize their findings on a presentation given to the class with a with a minimum score of 70% on a rubric.

OH 105- Herbaceous Cuttings. Given stock plants and all materials, students will be able to make 25 herbaceous cuttings with 90% success rate.

OH 105- Semi-Hardwood Cuttings. 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.

OH 105- Transplanting Plugs. Given a step-by-step procedure and all materials, students will be able to transplant plugs into 6-packs with a 98% success rate.

OH 204- Plant Production. Given a set of ten plants grown in containers, students will be able to trim or prune, label, and space the plants in the nursery to industry standards.

OH 204- Plant Sales. 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.

Person(s) Responsible (Name and Position): Program Faculty, Program Staff, Agriculture Division Chair, Agriculture Division Dean,

Rationale (With supporting data): The greenhouses are equipped with multiple systems to regulate and maintain the greenhouse environment optimal for plant growth and development. Multiple systems are controlled by controllers designed to connect to a master computer. The computer uses a specialized software to manage greenhouse systems from the Nursery Management building.

The greenhouse system controllers are hard wired to a computer located in the Nursery Management building. A fault in the wiring prevents the computer to connect to the controllers. The lack of connection prevents the use of the computer software to manage the greenhouses. It also prevents the use of the system to train students.

It is challenging to manage cooling, heating and irrigation systems with limited access to the software managing system. When greenhouses get too hot or too wet, it is difficult to carryout safe practical lab activities, and student projects are affected.

Priority: High
Safety Issue: Yes
External Mandate: No
Safety/Mandate Explanation:

Resources Description

Technology - Technical support to locate and repair connection problems in the Link 4 controllers/computer system. Technical training for lab technicians and program faculty to use and maintain Link 4 controllers/computer system. (Active)

Why is this resource required for this action?: This resource is needed train students to meet course and program standards requiring practical skills in propagating, growing, managing and identifying plant species. It also needed to maintain a safe environment for students, staff, faculty and visitors from the community.

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 10000

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

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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 4.3 - 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.

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attainment of a livable wage) and the number of CTE students who successfully complete 9+ CTE units in a single year by 10% from 2021-2025.

District Objective 3.1 - Reduce equity gaps in course success rates across all departments by 40% from 2021-2025.

District Objective 4.1 - Increase the effective use of data and transparency in decision making at all institutional levels from 2021-2025.

District Objective 4.2 - Improve communication practices needed to support organizational effectiveness and continuous improvement across all District units and constituents from 2021-2025.

District Objective 4.3 - Improve professional development practices District-wide for all District employees to support equity and operational effectiveness from 2021-2025.

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, 2021 - 2022, 2022 - 2023, 2023 - 2024

Leave Blank: Leave Blank:

Identify related course/program outcomes: OH 109- Tree and shrub Pruning Given a small to medium tree and several shrubs in the landscape, students will be able to demonstrate pruning and training techniques. Students will prune all plant material to industry standards reviewed in class.

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 220- Given a pesticide sprayer and personal protective equipment, students will be able to calibrate the sprayer to treat a given area to the instructor's satisfaction.

OH 208- Students will demonstrate proficiency in the safe operation of landscape tools and equipment based on a practical exam to the instructor's satisfaction.

OH 222- Given a landscape area, students will be able to monitor the area for pests and beneficials and complete a pest monitoring form with 90% accuracy or to the instructor's satisfaction.

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.

PLO- Describe and demonstrate the safe and efficient use of tools, equipment and materials commonly used in ornamental horticulture and nursery management.

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:

Update on Action

Updates

Update Year: 2023 - 2024 10/07/2023

Status: Continue Action Next Year

Tools and equipment continue to be replaced or added to the program based on available funding. The following equipment will be purchased during the Fall 2023 semester: Stihl MS 194 T chain saw. The following pieces of equipment were purchased during the 2022-2023 academic year: One DRAMM Chemdose 20 applicator, six PRO-35 Fertilizer Applicators, Three 36 inch soil sampling probes with side step, and six 2-1/4" X 3' Soil Auger Kits.

Impact on District Objectives/Unit Outcomes (Not Required):

Resources Description

Equipment - Instructional - Stihl MS 194 T tree pruning saw (Active)

Why is this resource required for this action?: This resource is needed to train students to prune medium to large trees using industry standard procedures. The saw will be replacing an older model saw that it's no longer safe to use.

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 539

Equipment - Instructional - Nursery Pots and Carrying Trays (Active)

Why is this resource required for this action?: The resource is need to train students in the production of ornamental plants based on current industry standards.

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 4126

Equipment - Instructional - Phytotronics 12 Shelf Germination Chamber or similar product (Active)

Why is this resource required for this action?: This resource is needed to train students to propate with materials and techniques based on industry standards. This unit is a replacement uit.

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 7500

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 4.3 - 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.

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.

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District Objective 2.4 - Increase the percentage of CTE students who achieve their employment objectives by five percentage points (job closely related to field of study and

attainment of a livable wage) and the number of CTE students who successfully complete 9+ CTE units in a single year by 10% from 2021-2025.

District Objective 3.1 - Reduce equity gaps in course success rates across all departments by 40% from 2021-2025.

Action: Program and Course Outcomes

Increase effectiveness of the assessment of program and courses outcomes to make changes to course curriculum and teaching modalities to improve student success. Review all program and course outcomes. Modify program and course outcomes as needed. develop and implement an assessment plan for all program and course outcomes.

Leave Blank:

Implementation Timeline: 2022 - 2023, 2023 - 2024

Leave Blank: Leave Blank:

Identify related course/program outcomes: All program outcomes and all course outcomes part pf the Ornamental Horticulture Program will be reviewed.

Person(s) Responsible (Name and Position): Program Faculty, Agriculture Division Chair

Rationale (With supporting data): This action is needed to make necessary changes to curriculum and teaching modalities to improve student success based on assessment results.

Priority: High
Safety Issue: No
External Mandate: No
Safety/Mandate Explanation:

Update on Action

Updates

Update Year: 2023 - 2024 **Status:** Continue Action Next Year

All program outcomes have been assessed, and assessment plan is in place. All course outcomes have been assessed and an assessment plan is in place. The program outcomes will be reviewed by members of the advisory committee during the Fall 2023 semester. Modifications to the outcomes by on advisory committee recommendations will be made in Spring 2024. Members of the advisory committee will be reviewing course objectives for 1/3 of the courses in the program during the Fall 2023 semester. Course outcomes will be modified based on recommendation from the committee when the course outlines are updated. A recommendation will be made to train adjunct faculty teaching courses in the Floral Technology certificate program to assess course and program outcomes.

Impact on District Objectives/Unit Outcomes (Not Required):

Link Actions to District Objectives

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District Objective 2.2 - Increase the number of students who are transfer-ready by 15% and students who transfer to four-year institutions by 10% from 2021-2025.

District Objective 2.3 - Increase the percentage of students who complete both transfer-level Quantitative Reasoning and English by 10 percentage points by the end of their first year from 2021-2025.

District Objective 2.4 - Increase the percentage of CTE students who achieve their employment objectives by five percentage points (job closely related to field of study and

attainment of a livable wage) and the number of CTE students who successfully complete 9+ CTE units in a single year by 10% from 2021-2025.

District Objective 3.1 - Reduce equity gaps in course success rates across all departments by 40% from 2021-2025.

District Objective 4.1 - Increase the effective use of data and transparency in decision making at all institutional levels from 2021-2025.

District Objective 4.2 - Improve communication practices needed to support organizational effectiveness and continuous improvement across all District units and constituents from 2021-2025.

District Objective 4.3 - Improve professional development practices District-wide for all District employees to support equity and operational effectiveness from 2021-2025.

Action: Drainage Systems

Provide safe facilities for the implementation of the practical lab activities of the program.

Leave Blank: Continued Action

Implementation Timeline: 2020 - 2021, 2021 - 2022, 2022 - 2023, 2023 - 2024

Leave Blank:

Leave Blank:

Identify related course/program outcomes: OH 105- 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.

OH 1- Given all materials, students will be able to demonstrate 3 vegetative and seed propagation techniques utilized to propagate common ornamental plants to industry standards.

OH 105- Given stock plants and all materials, students will be able to make 25 herbaceous cuttings with 90% success rate.

OH 1- Given a set of guidelines, students will be able to conduct research experiment and write a report and present their findings to the class with a minimum score of 70% on a rubric.

OH 204- 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.

Person(s) Responsible (Name and Position): Program Faculty, Agriculture Division Dean, Dean of Facilities, Agriculture Division Chair

Rationale (With supporting data): The greenhouses and shade house are a key component in the practical training of students. Those buildings were constructed without drainage. The lack of drainage causes the walkways to become slippery and unsafe. Drainage is needed in those building to minimize safety hazards. Drainage has been installed in multiple locations within the nursery Blocks to minimize standing water on walkways. The walkways around Blocks 3-7 need resurfacing to improve drainage.

Priority: High
Safety Issue: Yes
External Mandate: No
Safety/Mandate Explanation:

Update on Action

Updates

Update Year: 2022 - 2023 09/30/2022

Status: Continue Action Next Year

The need to address the lack of drainage on parts of the OH Unit continues. Emphasis needs to be placed on areas where the nursery and greenhouse walkways become slippery creating a safety hazard. When walkways become slippery, it limits access to areas of the nursery by students, staff and faculty. The goal is to identify problematic areas and provide solution as soon as possible.

Impact on District Objectives/Unit Outcomes (Not Required):

Resources Description

Facilities - Addition of drainage system to Greenhouses and Shadehouse. Resurface nursery walkways around Blocks 3-7. (Active)

Why is this resource required for this action?: The greenhouses and shade house are a key component in the practical training of students. Those buildings were constructed without drainage. The lack of drainage causes the walkways to become slippery and unsafe. Drainage is needed in those building to eliminate the safety hazard. Drainage on nursery walkways needs to improve to minimize safety hazards.

Notes (optional): Nursery walkways can be resurfaced with gravel.

Cost of Request (Nothing will be funded over the amount listed.): 6000

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 4.3 - 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.

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 - 4.2 -Improve the efficiency, effectiveness and communication of human, physical, technological, and financial resources to advance the District Mission.

District Objectives: 2021-2025

District Objective 2.1 - Increase the number of students who earn an associate degree or certificate (CTE and non-CTE) by 5% from 2021-2025.

District Objective 2.4 - Increase the percentage of CTE students who achieve their employment objectives by five percentage points (job closely related to field of study and

attainment of a livable wage) and the number of CTE students who successfully complete 9+ CTE units in a single year by 10% from 2021-2025.

District Objective 3.1 - Reduce equity gaps in course success rates across all departments by 40% from 2021-2025.

Action: Shade Cloth Frame

Provide students in the program practical training and experience in growing a diversity of plant material using industry standards.

Leave Blank:

Implementation Timeline: 2022 - 2023

Leave Blank: Leave Blank:

Identify related course/program outcomes: OH 204- 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 204- 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 204- Given a set of ten one-gallon container plants, students will be able to trim or prune, label, and space the plants in the nursery to industry standards.

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

OH 105- 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.

Person(s) Responsible (Name and Position): Program faculty and staff

Rationale (With supporting data): The available space to grow plant material that is sensitive to full sun exposure is limited. The limited space in the Shadehouse is used to maintain and acclimate small plant material. Space under shade is needed to grow shade plant species used in lab activities in various classes.

Priority: High
Safety Issue: No
External Mandate: No
Safety/Mandate Explanation:

Update on Action

Updates

Update Year: 2023 - 2024 10/06/2023

Status: Action Completed

The shade cloth frame was purchased and installed during the 2022-2023 academic year. It is functional for student use.

Impact on District Objectives/Unit Outcomes (Not Required):

Resources Description

Facilities - 20' X 40' Frame and Shade Cloth to cover plants growing in several nursery growing areas. (Active)

Why is this resource required for this action?: This resource is needed train students to meet course and program standards requiring practical skills in growing, managing and identifying plant species requiring shade exposure.

Notes (optional): Funding for this resource has been allocated (Perkins Funding).

Cost of Request (Nothing will be funded over the amount listed.): 5900

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

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.

District Objectives: 2021-2025

District Objective 1.1 - The District will increase FTES 2% from 2021 to 2025.

District Objective 2.1 - Increase the number of students who earn an associate degree or certificate (CTE and non-CTE) by 5% from 2021-2025.

District Objective 2.2 - Increase the number of students who are transfer-ready by 15% and students who transfer to four-year institutions by 10% from 2021-2025.

District Objective 2.4 - Increase the percentage of CTE students who achieve their employment objectives by five percentage points (job closely related to field of study and

attainment of a livable wage) and the number of CTE students who successfully complete 9+ CTE units in a single year by 10% from 2021-2025.

District Objective 3.1 - Reduce equity gaps in course success rates across all departments by 40% from 2021-2025.

Action: Nursery Management Laptop Upgrade

Provide students in the nursery management program practical experience in the use of the specialized hardware and software used by industry in Nursery Management.

Leave Blank:

Implementation Timeline: 2022 - 2023

Leave Blank: 05/31/2023

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.

Person(s) Responsible (Name and Position): Program Faculty, Agriculture Division Chair, Agriculture Division Dean

Rationale (With supporting data): The the hard drive on laptop used to manage the printing of plant labels for lab activities, and manage lessons for plant identification was damaged during the 2021-2022 academic year. The laptop was replaced with a laptop of limited capacity to run the required software. The replacement laptop has a small screen and it's slow in processing the tasks to be completed.

This resource is needed to maintain the training of students relevant to the current industry standards. Specialized software is 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:

Update on Action

Updates

Update Year: 2023 - 2024 10/06/2023

Status: Action Completed

A replacement laptop has been purchased. It is in the process of preparing for installation. The goal is to have it in place and in working order by the end of October 2023.

Impact on District Objectives/Unit Outcomes (Not Required):

Resources Description

Technology - Laptop with 17" screen (Active)

Why is this resource required for this action?: The laptop is 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 laptop is working slow due to limited capacity.

Notes (optional):

Cost of Request (Nothing will be funded over the amount listed.): 2500

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

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.

District Objectives: 2021-2025

District Objective 1.1 - The District will increase FTES 2% from 2021 to 2025.

District Objective 2.1 - Increase the number of students who earn an associate degree or certificate (CTE and non-CTE) by 5% from 2021-2025.

District Objective 2.2 - Increase the number of students who are transfer-ready by 15% and students who transfer to four-year institutions by 10% from 2021-2025.

District Objective 2.4 - Increase the percentage of CTE students who achieve their employment objectives by five percentage points (job closely related to field of study and

attainment of a livable wage) and the number of CTE students who successfully complete 9+ CTE units in a single year by 10% from 2021-2025.

District Objective 3.1 - Reduce equity gaps in course success rates across all departments by 40% from 2021-2025.

District Objective 4.1 - Increase the effective use of data and transparency in decision making at all institutional levels from 2021-2025.