# Logo - Guides and References - Pasadena City College

# Plant Science Advisory Board - Agenda

Thursday April 13th, 2023, 5”30-6:30pm via Zoom

## Committee Members

Leigh Adams - Studio Petrichor

Anna Ariza, Saturate LA

Joe Brosius, Magic Growers

Erika Catanese, Pasadena City College

Wendy Coleman, LA UrbanFarms

Dr. Eileen M. Cullen, Chair of Plant Science Cal Poly Pomona

Melanie Dorsey, LA UrbanFarms

Dr. Kirsten Fisher, Dept. Biological Sciences, CSULA

Joanna Glovinski, Fruitstitute

Sean Lahmeyer, Huntington Gardens

Dr. Valerie Mellano, Plant Sciences Chair Emeritus, Cal Poly Pomona

Katharina Rodriguez, Pasadena City College

David Spiro, Pasadena Educational Foundation

Joan Stevens, Mamabotanica

Eric Tomassini, Avenue 33 Farm

Dr. Michael Vendrasco, Pasadena City College

Dr. Nicholas Hatch, Pasadena City College

Dr. Veronica Jaramillo, Dean Natural Sciences, Pasadena City College

**Call to Order at 5:35pm**

1. **Introductions**
2. **Overview of proposed program – For both curriculum and funding approval we need recommendations from this body to decide what is best for industry. Also need recommendations for equipment and supplies used within industry so when we are applying for Perkins funding it substantiates the request. Always looking for your input on who is the best student for this field career. (V. Jaramillo)**

**(K. Rodriguez) The recommendations made last year have been incorporated into a document that highlights (3) programs that can potentially build on each other to issue the certificates below.**

* 1. Sustainable Landscaping Occupational Certificate **The idea is to have different entry points for students, maybe they have more time to complete a shorter certificate 4 unit courses – includes irrigation, landscape construction – can take landscape contractors exam, intro to tree care and urban forestry through these courses would be ready for exams and this smaller certificate can give students a broad background and enhance the skills that they have as an entry point.**
  2. Agricultural Entrepreneurship Certificate of Achievement – **Larger 25 units plus certificate of achievement and AS degree. This pertains to what would help students be successful as businesspeople. This program has overlapped from the 4-unit certificate.4 required core are integration, integrated pest mgmt., horticulture, and core sciences and then after they would pick courses on their interest area and thinking more about transfer. They can pick plant science, botany, botany for school gardens or chemistry courses.**
  3. Urban Agriculture/ Plant Science AS and AS-T degrees – **students can finish at PCC or go down the road to Cal Poly Pomona with this degree. Business courses pick two bookkeeping, QuickBooks, sales and customer service or Spanish for business. Finally, to choose a marketing or hospitality intro to marketing, marketing and communication, culinary principles the idea is to make this broad as foundational courses they can tailor more to their interest area of business they want to get into. If they wanted a college degree, they would need to complete the general education classes as well. We really like the idea of having these different points to come in that make them employable or as entrepreneurs.**

1. **Feedback from Employers on proposed programs**
   1. Suggestions for improvement
   2. Additions or deletions
2. **Recommendation for programs** 
   1. **Sustainable Landscaping Occupational Skills**

(J. Stevens) Environmental Horticulture not a lot of places where students can plant things – they can grow some in the lab but no irrigation. Unless you come in on a Saturday to water them they won’t survive so presents an issue. Mostly when I see landscape construction where students will get their hands on.

(K. Rodriguez) Will be working with CTE on the construction so they can build a fence and analyze the construction of patios to take place in the new building area. We are installing an aeroponics gardening system in Science Village this summer and looking for more places to do germination and even work with Huntington to bring students down to the ranch as well.

(V. Jaramillo) Discussion has been had with the gardening staff definitely with this program we have to have communication between the two.

(N. Hatch) Spoke with Richard Laret about some properties that we own houses in Pasadena has big ideas of turning the yards into demo areas would be ripe for irrigation. PCC owns the properties.

(E. Cullen) Question about Urban Forestry we are also looking at our curriculum in water resources and irrigation design we have added agricultural construction to the minor course. Not familiar with Urban Forestry would this be a certified arborist? A field trip to Cal Poly would be great. J. Stevens just today took her students there.

(E. Tomassini) Hands-on experience in irrigation is essential because it is problem solving. You learn a lot from trial and error. Is part of this internship hours? Every time I learn something from a different person each one has a different way of doing it. Looks great as a core to attain skills for this portion just curious about the number of hands on that is available. Internship hours are imperative as well as maybe an extension class I took one when I was younger where farmers came in and shared things like what valves were used and especially when you are starting out you can develop a diversity of problem solving skills guests coming in and speaking directly to students is already really helpful in reference points.

(K. Rodriguez) Irrigation course the majority of hours is hands on. In the larger certificate there is an option of an internship. It covers designing, troubleshooting irrigation systems, municipal water supplies, covers micro sprinklers as well as larger systems it is just one course so someone that completes should learn a lot of trouble shooting from the course. Students have to build an irrigation system from drawings and they would need to actually install one to complete the course still working on the details on how difficult or complicated. We are excited that we have this under the plant sciences and the minimum qualifications for teaching one of these courses is an AA plus four years of experience so professionals in the field can work with us to develop the curriculum to help the students develop theoretical needs.

(J. MacArthur) Hands on irrigation offers an opportunity for development there are times when you should not reuse your pipe but there are times when you have to people like the local water agency someone spraying micro sprayers will help prepare the students for employment because of the variety of problem-solving skills exposed to.

(V. Jaramillo) recommendations seem to be a lot of hands-on experience in irrigation in the landscape construction lots of different scenarios with a diversity of speakers/teachers with a broad range of experience will be extremely helpful in these courses.

* 1. **Agricultural Entrepreneurship Certificate of Achievement/ AS degree**

(N. Hatch) There might be space to add the food science course to one of these. Nutrition curriculum may pair nicely with this certificate. I was thinking of adding probably in science and sustainability if added as an option for now there is room for further development down the road. Food science course has a heavy lab on it may not be considered low unit. How much interested would they be in taking additional classes in fermenting, food processing? Thinking about partnering with food science and culinary should be a lot of interest in that.

(E. Catanese) I like this idea if you are teaching students to practice forestry in an urban environment, they need to discover the value of the food and nutritional knowledge it can end up being a low diversity type of urban forest. Integrating the value of diverse foods can really enhance biodiversity and ecological services can also enhance the interest of getting into urban forestry. It can also pair well with medicinal plants if the nutritional aspect was also low unit, you could pick three instead of one. I looked up agricultural specific entrepreneur classes. There are programs all over the country that we could glean information where we could work with the business division to develop specific for our students.

(E. Tomassini) People are coming in and taking this program with different end goals if they are going to do Urban Agriculture in food sanitation and sanitation my suggestion would be that is mandatory or something along those lines. If you are growing food for someone from a general agriculture aspect 40% of the time is washing and packing if you are producing food for sale. If someone is trying to go into Urban Forestry not a big deal but if Urban Agriculture this would be super important and is really underdeveloped.

Like most small farms gap certification (wash, pack, design) is great you could do case studies, good agricultural practices you go through the process by applying what you would be going through to your workflow to have more information specific to agriculture our wash pack areas are covered outside so there are certain things we do that would not come up in food certification and safety so the diversity would be interesting. Might be great to put the business classes in there, maybe one of the most important they would learn. In terms of the business courses, are they doing their own business already? Is this learning about employees, payroll? Wish I had known more about it. May be applicable to this a class I took had different farmers from different models farmers market vs wholesale and they showed us their books maybe a landscaping business vs a nursery may be super helpful if they are entrepreneurial. With landscaping you understand quickly that the decisions you make change how your business looks and what you need to do. If I make this choice and extrapolate it out over the next couple of years what does that mean for me as a business owner? I work a lot with LA food council and CLA and a lot of times they are asking what kind of insurance you have, and I tend to look and see what others in these industries are doing there is not one clear path. There is also a dichotomy of when you are in school what classes are you going to take versus what classes should you have taken?

(V. Jaramillo) Recommendation is to add food sanitation and safety, hospitality 3. When we are putting this out there are we going to have different focuses since we have it fairly broad? Maybe a specific focus on agriculture? So, it is better to have a separate course from hospitality.

(K. Rodriguez) We certainly can have two paths Urban agriculture, Urban Forestry separating might make things easier even with a lot of overlap. Was there anything in the business area that seemed to be missing from the current cluster?

(E. Cullen) I like the fact that the agriculture certificate of achievement is under market. I see one of things we talk about a lot is urban farming. Maybe taking the food sanitation safety to move to urban agriculture is great for both. UCAR has really great workshops about taking the gap principles and relating them to urban agriculture. I like the idea this certificate would benefit from developing different modules where the principles are the same but some small farm adaptations would be great for students. They could go on and get a safety alliance certificate through the course.

(J. MacArthur) If that business support structure is there you would attract more students the importance of offering that course and bring in specific people in different areas come in and explain how and why they keep the books the way they do would be invaluable.

(J. Stevens) When choosing to partner with the business classes if you have a more agricultural entrepreneur specific course would be helpful. How do you get a business started? What are the different agencies? This can be a bit overwhelming unless you have someone talking you through it. It matters who is teaching the class.

(V. Jaramillo) Supposed to have someone outside of PCC to be the chair of this advisory board so we will be asking for someone to volunteer so please express interest if you can.

* 1. Urban Agriculture/ Plant Science AS and AS-T degrees

(K. Rodriguez) If students took core courses in the other area, they probably would take this course to complete the training. We just wanted to have an option for the student to get the AS) We want to continue to develop additional courses we have some really good recommendations we had a strong start trying out information from some of the existing courses and all of your recommendations and feedback. (i.e., an entrepreneur course specific to agriculture)

(J. Macarthur) Would like specifics on concepts of botany in agriculture using school gardens.

(E. Catanese) We upgraded this recently to be teaching and learning and as a demonstration garden the botany course we currently teach is a life science with lab.

(V. Jaramillo) Our goal for this is to have AS for transfer Cal Poly being one of the places of transfer. Anyone who wants to self-nominate you can email Shelita. If you have questions about the position, you can email myself or Katie Rodriguez for more information.

(K. Fisher) This is a little broader just mentioning we are currently developing a bachelors for environmental sciences program there is quite a bit of potential for transferring excited to partner with you on that.

1. **Next Steps - Consensus to recommend that PCC create the new program Agricultural Entrepreneurship Certificate of Achievement/ AS degree and create a new program for Occupational Skill in Sustainable Landscaping**
2. **Next Meeting early September 2023**