YEARLY PLANNING DISCUSSION TEMPLATE
General Questions

Program Name __Agriculture_____**Academic Year ___2022-2023__**

1. Has your program mission or primary function changed in the last year?

Every year the mission of the agriculture program, while remaining fundamentally aligned with previous years, increases in its scope of program offerings to meet the continual emergence of new approaches, practices, and technologies advancing the industry. The original program mission statement only referred to the Agricultural Science degree and certificate because that was the first program available to agriculture students. Since that time, two transfer degrees have been added, two stackable certificates, and seven new courses have been added. A certificate in Precision Agriculture will be launched within a year, and additional certificates and degrees are under consideration for mechanized agriculture, food safety, greenhouse production, and beginning farmer training. Therefore, the Program Mission will continue to expand to include the more diverse educational opportunities now available to agriculture students for adequate preparation for transfer and to meet workforce needs.

2. Were there any noteworthy changes to the program over the past year? (eg, new courses, degrees, certificates, articulation agreements)

Three new seasonally-based agriculture enterprise courses were launched: AG 190 Agricultural Production Enterprise, Fall-Winter; AG 191 Agricultural Production Enterprise, Spring; and AG 192 Agricultural Production Enterprise, Summer. These courses are designed to provide regular hands-on learning opportunities through the maintenance of the AHC student farm. Once approved, these courses will be articulated to the new farm production courses offered at the Santa Maria Joint Union High School District (SMJUHSD) Mark Richardson CTE Center and Agricultural Farm. The Fertilizers and Plant Nutrition class, which had been a 300-level, non-transferable course, was converted to a 100-level, transferable course, aligned with the corresponding course at Cal Poly State University. Additionally, AG 153 Introduction to Sustainable Agriculture, has been articulated to the SMJUHSD CTE Center student farm course. A new course developed for the AHC Veterinary Technology program, VT 102 Introduction to Animal Feeding and Nutrition, will also become a valuable class for agriculture students pursuing transfer in animal science. This class aligns with the corresponding course at Cal Poly State University and an articulation request will be forthcoming.

Learning Outcomes Assessment

With the recent transition to the new learning assessment tool, learning outcome data has not been collected in recent years. The new assessment program does not have program learning outcomes appropriately designated given the split of Agriculture from Viticulture & Enology. The Agriculture Program Coordinator attempted to have the online tool updated to reflect this

correction but due to the departure of the Research and Planning Analyst, who has not yet been replaced, the corrections have not been made and therefore it has not been possible to enter assessment data in the new online tool.

a. Please summarize key results from this year's assessment.
n/a – see statement above

b. Please summarize your reflections, analysis, and interpretation of the learning outcome assessment and data.
n/a – see statement above

c. Please summarize recommendations and/or accolades that were made within the program/department.

n/a – see statement above

d. Please review and attach any *changes* to planning documentation, including PLO rubrics, associations, and cycles planning.

n/a – see statement above

3. Is your two-year program map in place and were there any challenges maintaining the planned schedule?

The program maps for all agriculture program degrees and certificates have all been established and are published on the Agriculture program web page: https://www.hancockcollege.edu/pathways/sciences-technologies/agriculture.php

4. Were there any staffing changes?

Following several years of requesting a permanent, full-time position for the Agriculture program faculty, the position was prioritized this year. The job opening was posted and interviews were held in April with the selection of a candidate to fill the position beginning Fall 2023. Additionally, Strong Workforce Funds have been allocated to fund a temporary, part-time staff position to assist the program coordinator/faculty with outreach. A new part-time instructor was also hired to teach AG 160 Plant Propagation and Production.

5. What were your program successes in your area of focus last year?

The 6-year comprehensive program review was completed last year and therefore there was not a singular area of focus identified. Reflecting on the program goals identified in the recent comprehensive program review, the following successes are noted:

- Strong industry partnerships continue to provide relevant guidance for program development and input regarding workforce needs

- An increase in industry requests for interns and students to fill open positions
- Industry and university partners continue to provide quality access to field trips and guest speakers in all classes
- New AHC program partnerships at the student farm include: Veteran's Center, B.I.G.E. Club, and CSEA
- Hiring of full-time Agriculture program professor/coordinator
- Regular participation in outreach events both at AHC and in the community
- Continued partnerships with high schools and addition of new concurrent enrollment agreements
- Curriculum updates and improvements including addition of new courses and progress towards completion of new programs, guided by industry and university support

CTE two-year review of labor market data and pre-requisite review

6. Does the program meet documented labor market demand?

According to the State of California Employment Development Department (EDD), the number of annual job openings in Santa Barbara County for those with knowledge and skills in general agriculture, plant science, pest control advising and agricultural business is expected to be nearly 375. The average hourly wage earned by Farmers, Ranchers and Other Agricultural Managers is $35.54 while the average hourly wage earned by soil and plant scientists is nearly $41.00. Considering the employment opportunities in the state of California for Agricultural and Food Science Technicians; Farmers, Ranchers, and Other Agricultural Managers; First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers, and Animal Scientists there is expected to be over 10,000 job openings annually with an average hourly wage earned of $35.81. There is an expected annual increase of 6.3% in job openings. The continued expansion of the AHC Agriculture program, guided by regional industry partner needs and recommendations, serves to meet the documented and projected workforce needs.

7. How does the program address needs that are not met by similar programs?

The AHC Agriculture program is the only program in the region to offer a pathway to qualifying to take the California Department of Pesticide Regulation Pest Control Advisor licensing exam without the need to earn a bachelor's degree. This unique opportunity provides students with an option for a career that is in extremely high demand and also is one of the highest paid agriculture positions available. This is particularly important for our returning and working adult students who are not in a position to transfer to a university. Additionally, the Plant Science, Agricultural Science, and Agricultural Business programs offer students curricular options that meet their specific area of interest and serve both to meet transfer requirements and workforce needs.

8. Does the employment, completion, and success data of students indicate program effectiveness and vitality? Please, explain.

See attached Perkins College Core Indicator Information for specific data. In reviewing the Core Indicator Report, it is noted that in the following areas Allan Hancock College is exceeding the negotiated level for Postsecondary Retention & Placement and Employment by more than 20%. The AHC Agriculture program is slightly lower than the negotiated level for the 2019-2020 cohort for Earned Postsecondary Credential. This can likely be attributed to multiple factors, including the delay in completion due to the Covid-19 pandemic and the number of students who transferred without earning an associate's degree. The most recent data available from AHC Institutional Effectiveness is for the 2021-2022 academic year shows that overall program retention is 97% and overall program success is 87%. These statistics indicate that the program is effective in its ability to ensure student success and completion.

9. Has the program met the Title 5 requirements to review course prerequisites, and advisories within the prescribed cycle of every 2 year for CTE programs and every 5 years for all others?

Yes, the program has completed a comprehensive course review that included a review and update, when needed, of all course prerequisites and advisories.

10. Have recommendations from the previous report been addressed?

Many of the recommendations that can be addressed directly by the program coordinator have been met, such as:

- Continue to promote community awareness of new agriculture program offerings
- Establish internships with industry partners
- Establish an agricultural production enterprise project on the AHC student farm – three new courses have been launched, each representing a different season of work at the farm: AG 190
- Near completion of the new Precision Agriculture course and certificate

The goals that are yet to be achieved are those that require additional funding and support, such as:

- Improve and maintain the "living laboratory" student garden and fruit orchard to create an effective environment where agriculture students can participate in valuable experiential learning activities.
- Improve agriculture part-time faculty program involvement and increase industry and university experiences to improve instruction and SLO assessment
- Use a "farm to table" model to increase collaboration between AHC agriculture, viticulture, enology, nutrition and culinary programs

- Establish a "Week of Discovery" to adequately welcome and prepare incoming agriculture students and their families
- Expand on Produce Safety program to develop food safety curriculum
- Establish a dedicated laboratory and classroom space for agriculture courses
- Hire a classified farm technician

Use the tables below to fill in **NEW** resources and planning initiatives that do not apply directly to core topics. ***This section is only used if there are new planning initiatives and resources requested.***

New Program Planning Initiative	
Title:	Enhancement of Student Instructional Space
Planning years:	2023-2024 to 2027-2028
Description: The lack of dedicated instructional, storage, and meeting space for the agriculture program limits the ability of faculty to make the best use of time, knowledge, and student engagement. The following resources address the need to enhance the foundations of the agriculture program: improvement of the "living laboratory" student farm (vegetable garden, fruit orchard, greenhouse, and vineyard), establishment of a dedicated classroom and laboratory, and creation of a student hub/center for gathering to study, work on projects, and engage with agriculture program students and faculty.	
Resources: **Priority Level:** Low Medium **High** **Resource Type:** Equipment **Staff** Faculty Supplies and Materials **Quantity:** 1 **Per Item Price:** unknown **Price with taxes/shipping, etc:** **Description:** A full-time student farm technician would be responsible for maintaining all aspects of the student farm living laboratory. This would include planting, weeding, irrigation, germination, harvest, repairs, and supplies and equipment maintenance and inventory in the greenhouse, fruit orchard, vegetable garden, and occasionally in the vineyard. A dedicated staffing position will adequately manage the operational needs of the student farm. A farm technician is essential for the maintenance of this valuable living laboratory learning space. Students consistently experience improved learning outcomes when they have access to a well-maintained farm lab space.	
Resources: **Priority Level:** Low **Medium** High **Resource Type:** **Equipment** **Staff** Faculty **Supplies and Materials** **Quantity:** n/a **Per Item Price:** unknown **Price with taxes/shipping, etc:** **Description:** Establishment of formal, seasonal agricultural production enterprise projects on the AHC student farm to be managed by a student worker dedicated to assisting the Student Farm Technician. Supplies to include, but not limited to: potting mix, soil amendments, seeds, plants, irrigation supplies, tools, gloves, compost and BEAM building supplies, flags, plant tags, organic pest management materials, applicator equipment, and pest identification tools.	

Resources:

Priority Level: Low Medium **High**
Resource Type: **Equipment** Staff Faculty **Supplies and Materials**
Quantity:
Per Item Price: unknown **Price with taxes/shipping, etc:**
Description: Establish a dedicated laboratory, classroom, storage, and meeting space for agriculture courses and students. An area that can be designated as an "ag center" on campus would serve to alleviate scheduling conflicts and issues finding lecture/lab space. The current system finds the agriculture courses interfering with the classroom and lab space needs of the other programs in the department and prevents agriculture students from having an identified place to work, study, attend lectures and labs, and gather with peers, tutors, and faculty. An agriculture program "center" should include at least one dedicated wet laboratory complete with a full set of microscopes, storage capacity, and the many tools and supplies needed for plant science, plant pathology, entomology, weed science, animal science, soil science, plant propagation, horticulture, integrated pest management, and fruit science. This includes, but is not limited to: a fume hood, incubator, refrigerator/freezer, petri dishes, agar, gas chromatograph mass spectrometer. Additionally, the center should include at least one lecture classroom with all standard classroom technology. A study and meeting space is also essential for student collaboration, studying, tutoring, peer engagement, club meetings, and faculty interaction with students.

New Program Planning Initiative	
Title:	Industry-relevant and Transfer-preparation Curriculum Development
Planning years:	2023-2024 to 2025-2026

Description:

The agriculture industry is constantly on the forefront of emerging technologies and adoption of new practices, techniques, and approaches to adapt to changing consumer demands, increasing laws and regulations, advanced technologies, natural resource conservation, and the health and safety of the consumer. Due to these qualities of the industry, higher education technical training and academic preparation must be regularly updated to adequately prepare students for success. The following resources will serve to address curriculum development needs to maintain the agriculture program at the leading edge of agricultural advancements.

Resources:

Priority Level: Low Medium **High**
Resource Type: **Equipment** Staff **Faculty** **Supplies and Materials**
Quantity: n/a
Per Item Price: unknown **Price with taxes/shipping, etc:**
Description: Complete the development of the precision ag program and consider integration or alignment with the AHC industrial technology program to establish ag machining, engineering, and manufacturing curriculum. With rapidly emerging advanced technologies to support agriculture production, such as engineering, manufacturing, operating, diagnosing, and repairing autonomous and precision equipment, there is a significant workforce gap for skilled technical employees. The completion of these programs will require faculty research, industry collaboration, curriculum development, and the purchase of supplies and equipment required for adequate instruction. Student drones, GIS/GPS software and devices, water/weather/soil moisture/evapotranspiration monitors, and

related software will all be required for the effective implementation of the precision agriculture program. Equipment and supplies needed for revitalizing the current AHC Mechanized Agriculture course include: woodworking, metal, concrete, electrical, and plumbing tools and equipment for broad workforce training, including table saw, drill press, miter saw, and concrete mixer.

Resources:

Priority Level: Low **Medium** High
Resource Type: **Equipment** Staff **Faculty** **Supplies and Materials**
Quantity: n/a
Per Item Price: unknown **Price with taxes/shipping, etc:**
Description: Expand on the produce safety program that was initiated through a collaboration with Cal Poly State University, funded by a USDA FSOP grant to develop a comprehensive food safety curriculum. Under federal food safety regulations, all farms that produce commodities covered under the FSMA Produce Safety Rule are required to have at least one employee trained via a curriculum that is FDA approved for produce safety. In order to meet this significant industry need and provide students with preparation for this career pathway, a formal produce safety course and food safety certificate program are recommended. The addition of this program would further serve to prepare the AHC student farm for expansion of produce sales on a larger scale. Equipment and supplies will be required for microbial detection on plant tissues and in soil and water samples along with pH analysis, cleaning and sanitizing of all produce contact tools and surfaces. Faculty time for research and curriculum development will also be necessary.

Resources:

Priority Level: Low **Medium** High
Resource Type: **Equipment** Staff **Faculty** **Supplies and Materials**
Quantity: n/a
Per Item Price: unknown **Price with taxes/shipping, etc:**
Description: Per the recommendations of the AHC Agriculture Program Advisory Committee, exploration of new curriculum concepts should include: agriculture laws & regulations, natural resource management, certified crop adviser preparation, greenhouse technician and grower training, regenerative/sustainable/organic production preparation, and agriculture biotechnology. Faculty time for research and curriculum development will serve to identify industry needs and university articulation potential. Equipment and supplies required will be determined based on the content of the recommended courses.

New Program Planning Initiative	
Title:	Field to Table Interdisciplinary Collaborations
Planning years:	2023-2024

Description:

Given the significant shift in the agriculture industry toward increasing small, diversified farming operations and USDA support of the “farm to table” model that uses an interdisciplinary, cross-industry approach to close the gap in the food system between producer and consumer, it is valuable to expose students to the many ways in which such collaborations can lead to successful career opportunities. As such, the continued support of the AHC Field to Table Week of Welcome event and an expansion of collaborative food systems projects between the Agriculture, Viticulture & Enology, Food Science & Nutrition, and Culinary Arts & Management programs is an essential component of a successful agriculture program at AHC.

Resources:

Priority Level: Low Medium **High**
Resource Type: Equipment **Staff** **Faculty** **Supplies and Materials**
Quantity: n/a
Per Item Price: $10,000 **Price with taxes/shipping, etc:**
Description: The Field to Table Week of Welcome event has been a successful event since its inception in 2019. Incoming students in any of the "Field to Table" disciplines (agriculture, viticulture & enology, culinary arts & management, or food science & nutrition), are encouraged to join a collaboration among these programs through an intimate "Week of Welcome" experience. This 2 to 3-day event offers an introduction to the campus, program resources such as the student farm, vineyard, winery, culinary kitchen, and food science lab; the program coordinators, full-time faculty, and part-time faculty; and student services counselors. This initial welcome introduces students to the resources they will need to ensure success at AHC and beyond, including a student panel of program alumni. The support offered by the Field to Table Week of Welcome is holistic in its approach to acknowledge and encourage the whole person – academic, social, emotional, and cultural values. A relevant Field to Table industry tour day is a highlight of the event, connecting students in these disciplines with local businesses participating in sustainable food systems. This valuable event provides incoming students in any of the connected Field to Table disciplines with the formative opportunity to prepare for entrance into AHC and connect with fellow incoming students. This event should continue to be hosted on an annual basis.

Resources:

Priority Level: Low **Medium** High
Resource Type: **Equipment** **Staff** **Faculty** **Supplies and Materials**
Quantity: n/a
Per Item Price: unknown **Price with taxes/shipping, etc:**
Description: Farm to Table interdisciplinary collaborations bring together students and faculty from the Agriculture, Viticulture & Enology, Culinary Arts & Management, and Food Science & Nutrition programs to plant, maintain, harvest, prepare, cook, and distribute student-grown produce from the AHC student farm. This program is in its infancy and has the potential to serve the broader AHC community with farm-fresh, student-grown, organic produce while providing involved students with industry-relevant collaborative experiences. To impart effective and impactful grassroots campus food systems change, this program will require funding to support classified staff and faculty, student farm equipment and supplies that include but are not limited to a modernized greenhouse for soilless and various media fruit, vegetable, and flower production, automated greenhouse controls, computerized irrigation, temperature management along with related and required computer programs, and all potting, irrigation, fertilizer, and pest management supplies.

California Community Colleges Chancellor's Office
Management Information Systems Division
Career Technical Education (CTE) (Perkins V)

Forms - Parameter Selection Area

Select Form Type: Form 1 Part F by 2 Digit | Select District/College: Allan Hancock College | Select Fiscal Year: 2022-2023 | Select TOP Code: 01 Agriculture and Nat | View Report

Forms - Report

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College Core Indicator Information by 2-Digit TOP (2022-2023)

Perkins V, Title I, Part C Local Application

Agreement # _____ **District/College: ALLAN HANCOCK/ALLAN HANCOCK**

01 - Agriculture and Natural Resources

Instructions: Print out forms. Complete and sign bottom of last page.

Cohort Year CTE Enrollments: 718
(includes CTE enrollments above introductory level only)

CTE Headcount: 353
(CTE students enrolled above introductory level only)

Core Indicator 1 - Cohort Yr: 2019- 2020 Postsecondary Retention & Placement			Negotiated Level		College Performance	Percent Above or Below Negotiated Level
	Count	Total	State	District		
1 CTE Cohort*	84	86	74.53	74.53	97.67	23.1
2 Individuals Preparing for Non-Traditional Fields	27	27	74.53	74.53	100.00	25.5
3 Out of Workforce Individuals			74.53	74.53	N/R	N/R
4 Individuals with Economically Disadvantaged Families	67	69	74.53	74.53	97.10	22.6
5 English Learners			74.53	74.53	N/R	N/R
6 Single Parents	5	5	74.53	74.53	100.00	N/A
7 Individuals with Disabilities	2	3	74.53	74.53	66.67	N/A
8 Homeless Individuals			74.53	74.53	N/R	N/R
9 Youth in Foster Care			74.53	74.53	N/R	N/R
10 Youth with Parent in Active Military			74.53	74.53	N/R	N/R

Core Indicator 2 - Cohort Yr: 2019- 2020 Earned Postsecondary Credential			Negotiated Level		College Performance	Percent Above or Below Negotiated Level
	Count	Total	State	District		
11 CTE Cohort*	41	54	81.32	81.32	75.93	-5.4
12 Individuals Preparing for Non-Traditional Fields	14	16	81.32	81.32	87.50	6.2
13 Out of Workforce Individuals			81.32	81.32	N/R	N/R
14 Individuals with Economically Disadvantaged Families	36	45	81.32	81.32	80.00	-1.3
15 English Learners			81.32	81.32	N/R	N/R
16 Single Parents		1	81.32	81.32	0.00	N/A
17 Individuals with Disabilities	1	2	81.32	81.32	50.00	N/A
18 Homeless Individuals			81.32	81.32	N/R	N/R
19 Youth in Foster Care			81.32	81.32	N/R	N/R
20 Youth with Parent in Active Military			81.32	81.32	N/R	N/R

Core Indicator 3 - Cohort Yr: 2019- 2020 Non-traditional Program Enrollment	Negotiated Level	College Performance	Percent Above or Below Negotiated Level

		Count	Total	State	District		
21	CTE Cohort*	30	94	23.43	23.43	31.91	8.5
22	Individuals Preparing for Non-Traditional Fields	30	94	23.43	23.43	31.91	8.5
23	Out of Workforce Individuals			23.43	23.43	N/R	N/R
24	Individuals with Economically Disadvantaged Families	25	75	23.43	23.43	33.33	9.9
25	English Learners			23.43	23.43	N/R	N/R
26	Single Parents	4	5	23.43	23.43	80.00	N/A
27	Individuals with Disabilities	1	4	23.43	23.43	25.00	N/A
28	Homeless Individuals			23.43	23.43	N/R	N/R
29	Youth in Foster Care			23.43	23.43	N/R	N/R
30	Youth with Parent in Active Military			23.43	23.43	N/R	N/R

Core Indicator 4 - Cohort Yr: 2019- 2020 Employment				**Negotiated Level**		**College Performance**	**Percent Above or Below Negotiated Level**
		Count	Total	State	District		
31	CTE Cohort*	42	45	73.00	73.00	93.33	20.3
32	Individuals Preparing for Non-Traditional Fields	12	13	73.00	73.00	92.31	19.3
33	Out of Workforce Individuals			73.00	73.00	N/R	N/R
34	Individuals with Economically Disadvantaged Families	33	36	73.00	73.00	91.67	18.7
35	English Learners			73.00	73.00	N/R	N/R
36	Single Parents	DR	DR	73.00	73.00	DR	N/A
37	Individuals with Disabilities	DR	DR	73.00	73.00	DR	N/A
38	Homeless Individuals			73.00	73.00	N/R	N/R
39	Youth in Foster Care			73.00	73.00	N/R	N/R
40	Youth with Parent in Active Military			73.00	73.00	N/R	N/R

*Note: Students meeting criteria for for this indicator with 12+ CTE units in a discipline (one course is above intro) in 3 years. See cohort specifications for full criteria.

The DR notation indicates privacy requirements - EDD requires that counts less than six not be displayed. N/A (Not Applicable) indicates denominators 10 or N/R (Not Reported) indicates categories where no participants were reported. These performance indicators include all vocational programs whether or not they are supported with Perkins Title IC Funds. For more detailed reports, see Core Indicators 'Summary' and 'Detail' Reports. Shaded areas are for your information and are not included as accountability measures.

By totaling each positive, negative, N/A, N/R outcome in the last column from items 1 - 40, I certify and acknowledge that performance in the 40 Core Indicator categories is as follows:

_____ of the 40 are at or above the District negotiated level(s);
_____ of the 40 are below the District negotiated level(s);
_____ of the 40 are list as (N/A, N/R)

Department Chair (or authorized Designee) :_____

Form 1 Part E-C Last Revised 02/01/2010

* If no district target is available then state targets will be used.