

Instructional Program Review

Program: Agriculture

Academic Year: 2024

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Accepted by Academic Senate: 1/23/24

Accepted by Consultation Council: 2/12/24

Accepted by Governing Board: 2/13/24

Executive Summary

The executive summary should be a consolidation of key findings, program plans, and participants that contributed to the review

Lassen Community College provides an outstanding program for all those pursuing a higher education in agriculture. The mission is to provide a comprehensive education in agriculture. The Agriculture department emphasizes transfer level classes in conjunction with vocational training. The college serves the community, both on campus and in the outreach areas in an effort to build human perspective and economic potential.

Lassen Community College Agriculture program is a small program in comparison with other schools in the state. However, our college has a lot to offer students that other school cannot, foremost is our one on one attention. Our class sizes are small and the students have a greater access to the instructor. This allows our graduates and transfer student to move on to their next level with great success.

The college agriculture department consists of about 40 acres on the corner of the campus. This property has been slowly developed into a facility that can be utilized for in class lab activities. The development was slow as it was built primarily by students. The college has just recently hired an agriculture maintenance position to help maintain the facilities.

There are a couple of areas that need to be considered to make the Lassen College Agriculture program grow. One is program recruitment. It does not matter if Lassen College is the best program in the state, if the prospective students do not know about it they are not going to come. Recruitment has been limited and not covered in the past as one fulltime instructor doesn't have enough time to manage the agriculture classes and equipment. The second area is in facilities and equipment. Currently several of the labs have to be conducted off campus. I have a list below that would help keep labs on campus.

The following is lists of ideas that will make our program better and easier to manage.

Facilities always need to be improved with a rapidly changing agriculture industry, we must always strive to upgrade just to keep pace: The following is a list of items in order of importance to the program expansion and increase in FTE generation.

1. Additional ground to increase production agriculture offerings
2. Modern Green House
3. Cover Round pen
4. Indoor arena for winter agriculture classes
5. Hay storage barn
6. New horse barn with individual horse stalls (16 stalls)
7. Microscopes
8. Animal Production barn
9. Shop for tractor repair, maintenance and Mechanized Agriculture labs
 - a. Shop tools
 - b. Shop supplies
10. Safety fence around perimeter of Ag facilities

SECTION 1: ACADEMIC PLANNING

Program Overview, Objectives, and Student Learning Outcomes

- Describe the program (types of degrees offered, jobs/industries/transfer pathways associated with the program, faculty members in program)
- Describe and evaluate the program objectives against the LCC strategic plan, specifically the mission statement and strategic goals
- Evaluate any changes in the program since last review. Include summary of Annual Updates completed since last review. Regular program assessment will drive program improvements.

Program Overview:

The mission of the Lassen Community College Agriculture Department is to provide a comprehensive education in agriculture. The Agriculture Department emphasizes transfer level classes in conjunction with vocational training. The program is going to continue to expand technology and couple that with the industry need for applied experience. The department will continue offering the best education for our transfer and non-transfer students. Agriculture is a vast and changing field; Lassen College Agriculture will continue to adapt and change with it for the best education.

The Agriculture Program at Lassen Community College currently consists of four associate degree options, and five certificate options. There are currently 25 course options in agriculture for students to take as well as an agriculture business course offered under the business discipline. A student could also take individual courses as needed. Upon graduation with certificate, students can be successful in many entry-level jobs in agriculture, farm hand, sales and service or many other careers in agriculture. The degrees really set students up to transfer and continue towards a Bachelor's degree. The purpose of the degree is to improve knowledge and skills but also to ensure a smooth transition to a university.

Objectives:

Lassen Community College agriculture department tries to stay in line with the college objectives and planning. The agriculture department has incorporated the college mission statement into the Agriculture program overview. The following are the Lassen community College strategic Goals that the agriculture department works to fulfill.

Strategic Goals

1. Institutional Effectiveness: Provide the governance, leadership, integrated planning and accountability structures, and processes to effectively support an inclusive learning environment, while ensuring responsible stewardship of public trust and resources.
2. Learning Opportunities: Provide an array of rigorous academic programs delivered via a variety of modalities that promote student equity and learning while meeting the needs of the local and global community.
3. Resource Management: Manage human, physical, technological and financial resources to sustain fiscal stability and to effectively support the learning environment.
4. Student Success: Provide a college environment that reaches-out-to and supports

students, minimizes barriers, and increases opportunity and success through access and retention to enable student attainment of educational goals including completion of degrees and certificates, transfer, job placement and advancement, improvement of basic skills, and self-development through lifelong learning

Upon completion of the **Associate in Arts Degree University Studies: Emphasis in Agriculture Sciences**, the student will be able to:

1. Demonstrate effective animal husbandry skills, analyze the current market in order to sell the crop or animal at a premium and report the profit or loss, in a ranching situation.
2. Apply effective business, sales and marketing skills when presented with an agribusiness situation.
3. Demonstrate an understanding of the basic methodologies of science.

Upon completion of the **Associate in Science Degree in Agriculture Business for Transfer** or the **Certificate of Accomplishment in Agriculture Business**, the student will be able to:

1. Analyze and make business decisions based on a business model.
2. Make business decisions using supply and demand.
3. Effectively and efficiently use computer programs, including Word and Excel.
4. Demonstrate an understanding of accrual accounting.

Upon completion of the **Associate in Science Degree in Animal Science and Certificate of Accomplishment in Agricultural Animal Science**, the student will be able to:

1. Evaluate common management practices for farm animal health and reproduction.
2. Evaluate a genetic data sheet and rank the animals for a given scenario.
3. Plan a ranch management calendar for major animal species.
4. Plan a breeding program to maximize maternal heterosis.
5. Balance a ration using least cost principles.
6. Evaluate an animal production operation evaluating all production practices.

Upon completion of the **Associate in Science Degree** or the **Certificate of Achievement in Agricultural Science and Technology** the student will be able to:

1. Demonstrate effective animal husbandry skills, analyze the current market in order to sell the crop or animal at a premium and report the profit or loss, in a ranching situation.
2. Apply effective business, sales and marketing skills when presented with an agribusiness situation.

Agriculture Student Learning Outcomes

All of the Agriculture Program Student Learning Outcomes link to the Lassen Community College Institutional Student Learning Outcomes, which are posted below.

College SLO's

1. **Communication** - Ability to listen and read with comprehension and the ability to write and speak effectively

2. Critical Thinking - Ability to analyze a situation, identify and research a problem, propose a solution or desired outcome, implement a plan to address the problem, evaluate progress and adjust the plan as appropriate to arrive at the solution or desired outcome

3. Life Long Learning - Ability to engage in independent acquisition of knowledge; ability to access information including use of current technology; ability to use the internet and/or library to access and analyze information for relevance and accuracy; ability to navigate systems

4. Personal/Interpersonal Responsibility - Ability to develop and apply strategies to set realistic goals for personal, educational, career, and community development; ability to apply standards of personal and professional integrity; ability to cooperate with others in a collaborative environment for accomplishment of goals; ability to interact successfully with other cultures.

Program Student Learning Outcomes (see attached SLO chart)

Upon completion of the Associate in Arts Degree in University Studies:

1. Demonstrate effective animal husbandry skills, analyze the current market in order to sell the crops or animals at a premium and report the profit or loss.
2. Apply effective business, sales and marketing skills when presented with an agribusiness situation.
3. Demonstrate and understanding of the basic methodologies of science.

Upon completion of the associate in science degree or certificate of achievement in agriculture:

1. Demonstrate effective animal husbandry skill; analyze the current market in order to sell products at a premium.
2. Apply effective business, sales and marketing skills when presented with an agribusiness operation.

Upon completion of the certificate of accomplishment in animal science, students will be able to:

1. Evaluate common management practices for farm animal health and reproduction.
2. Evaluate a genetic data sheet and rank the animals
3. Plan a ranch management calendar.
4. Balance a ration using least cost principles.

Upon completion of the certificate of accomplishment in Horsemanship, students will be able to:

1. Analyze pedigrees, evaluate horses for correct structure and balance, and select the most complete horse for the required task.
2. Demonstrate comprehension of correct procedures for horses and apply those practices in order to produce a well-trained horse.

Course student learning Outcomes/Current course offerings

AGR 1 Agriculture Accounting

Demonstrate basic principles of accrual accounting

AGR 2 Agriculture Economics

1. Analyze and make business decisions based on supply and demand

2. Identify breakeven production positions in a business model
- AGR 3 Introduction to agriculture business
1. Demonstrate a basic understanding of agriculture business practices
- AGR 4 Introduction to agriculture Sales and communication
1. Present a marketing plan for an agriculture commodity
 2. Demonstrate techniques in sales using nonverbal and verbal communications skills
- AGR 8 Introduction to animal production
1. Recognize at least six major breeds of beef, sheep, and swine along with giving one identifying characteristic of that breed.
 2. Evaluate common management practices for farm animal health and reproduction.
- AGR 9 Food and animal selection
1. Given a set of animals, rank and support that ranking orally.
 2. Evaluate a genetic data sheet and rank the animals for a given scenario.
 3. Demonstrate sheep, swine and cattle carcass grading and evaluations
- AGR 10 Introduction to animal science
1. Demonstrate effective animal husbandry practices, utilizing available nutrients to develop a least cost method of feeding
 2. Demonstrate animal health practices and prescribe proper treatment
 3. Plan a ranch management calendar for the major farm animals species
- AGR 11 Beef cattle production
1. Plan a breeding program for a breeding program for a commercial operation to maximize maternal heterosis.
 2. Analyze and give economical recommendations for a production cow calf operation
 3. Recognize and diagnose heard health problems and make recommendation to correct the health issue.
- AGR 12 Animal Health and Disease
1. Identify common diseases, determine treatment, and evaluate environmental factors that contributed to spread of disease
- AGR 13 Feeds and feeding
1. Balance a ration using least cost principles given an animal species.
 2. Recognize nutritional deficiency conditions in the major farm animal and make recommendations for correcting the nutritional deficiency.
 3. Analyze the approximate nutrient composition of at least 10 different feedstuffs.
- AGR 14 Horse Husbandry
1. Design and implement a basic health management and disease prevention plan for a horse.
- AGR 19 Introduction to Soil Science
1. Demonstrate a working ability to use soil taxonomy
 2. Explain water movement in soil and water holding capacity of soil.
- AGR 20 Introduction to Plant Science
1. Analyze and make recommendations to improve the various conditions impacting the successful propagation of a specific plant species
- AGR 21 Theory of rodeo skills

1. Plan, promote and manage a college rodeo.

AGR 21B Intercollegiate Rodeo Skills

First Enrollment

Compete safely at a novice to beginning level in a selection of the following rodeo events: bull riding, bareback riding, bronc riding, calf roping, team roping, and steer wrestling.

Second Enrollment

Compete safely at a beginning to intermediate level in a selection of the following events: Barrel racing, Goat Tying, Breakaway roping, Team roping.

Third Enrollment

Compete safely at an intermediate to advanced level in a selection of the following events: Barrel racing, Goat Tying, Breakaway roping, Team roping.

Fourth Enrollment

Compete in a selection of the following rodeo events: Barrel racing, Goat Tying, Breakaway roping, Team roping, calf roping, bronc riding, bull riding at an appropriate level for continued participation in the NIRA.

AGR 22 Rodeo Skills

1. Demonstrate the proper use of equipment for each rodeo event.
2. Demonstrate proper safety procedure.
3. Demonstrate knowledge and understanding of proper technique when performing each rodeo event (riding and roping).
4. Demonstrate knowledge and understanding in all aspects of rodeo events. This would include improved riding along with rules and regulations regarding the rodeo events.

AGR 30 Team roping

First enrollment

Ability to rope a stationary roping dummy eight times out of ten

Second Enrollment

1. perform horsemanship skills for arena safety
2. Demonstrate scoring

Third enrollment

Ability to rope in a competitive situation using correct horse position

Fourth Enrollment

Demonstrate the correct running of a sanction roping

AGR 31 Introduction to Bovine Embryo Transfer

Plan and implement a successful recover and embryo transfer

AGR 40 Basic Agriculture Mechanics

Perform hot and cold metalwork

Demonstrate basic knots and rope splicing in an agriculture setting

AGR 41 Farm tractor and farm power

Perform all pre inspection and operations of at least two different types of farm machinery

AGR 57 Beginning Horseshoeing

Analyze structural design then correctly shape and apply shoes to a given horse

AGR 61 Introduction to Bovine Reproduction

1. Demonstrate the procedures to collect semen and perform semen straw preparation for maximum conception rate.
2. Properly run an estrus synchronization protocol and explain how the protocol works.

AGR 70 Rodeo Team Roping

1. Perform proper horsemanship and roping skills to be successful in the event of team roping.

Various curriculum has been updated therefore the agriculture department updated PSLO's and mapped all SLO to the current PSLO's this will now ensure that course and program SLO are in alignment with ISLO. Overall, the program is showing high success rates in PSLO achievement. Most of the SLO data is showing that the agriculture department has a higher success and retention rate then the overall college. I feel that this is in part by the inclusion practices in the agriculture department. The Agriculture department's faculty and staff have been working hard to minimize barriers, and increases opportunity for every student in the program.

The data addendum also showed that the agriculture program positively contributed to the GESLOs and ISLOs. The agriculture program will continue to align with the ISLOs, GESLOs and the college mission and vision. It is important to the Agriculture program for our students to have success in whatever endeavor that they choose.

Student Achievement and Learning Outcomes
Trends and Patterns in Student Achievement
Course Success Rates

Course Success Rate	2019-20	2020-21	2021-22	2022-23
Program-Level				
Agriculture Overall Success Rate	95%	82%	93%	89%
Lassen College Success Rate	80%	77%	78%	77%
Course-Level				
AGR-1		82%		83%
AGR-10	96%	91%	82%	80%
AGR-11	91%		93%	
AGR-12	50%		100%	
AGR-13	100%		92%	
AGR-14		88%		95%
AGR-19		69%		79%
AGR-2	88%		96%	
AGR-20	100%	89%	94%	92%
AGR-21B	90%	78%	94%	93%
AGR-22	96%	95%	100%	100%
AGR-3	100%		75%	
AGR-31	100%		100%	
AGR-4				79%
AGR-40		89%		100%
AGR-41		80%		82%
AGR-57	100%	50%	100%	100%
AGR-61	100%	100%	94%	100%
AGR-70	100%			
AGR-8	100%		100%	
AGR-9		78%		100%
Modality				
C – Correspondence				
F - Face-to-Face	95%	97%	95%	94%
H – Hybrid		78%	84%	83%
N – Internet				

Course Success Rate	2019-20	2020-21	2021-22	2022-23
Program-Level				
Agriculture Overall Success Rate	95%	82%	93%	89%
Lassen College Success Rate	80%	77%	78%	77%
Gender				
Female	96%	88%	96%	94%
Male	93%	77%	90%	80%
Unreported				
Ethnicity				
American Indian or AK Native	87%	100%	88%	92%
Asian	100%			100%
Black or African American	100%		100%	100%
Filipino		100%		100%
Hispanic or Latinx	100%	64%	85%	82%
Pacific Islander or HI Native				100%
Unreported	100%	60%	100%	80%
White	94%	85%	95%	90%
Age Group				
17 and Younger	94%	57%	100%	80%
18 to 24	94%	88%	93%	90%
25 to 49	100%	100%	92%	86%
50 and Older		100%	100%	100%
Unreported				

Course Retention Rates

Course Retention Rate	2019-20	2020-21	2021-22	2022-23
Program-Level				
Agriculture Overall Retention Rate	96%	93%	98%	97%
Lassen College Retention Rate	91%	88%	89%	89%
Gender				
Female	98%	95%	99%	98%
Male	95%	91%	96%	95%
Unreported				
Ethnicity				
American Indian or AK Native	93%	100%	100%	100%
Asian	100%			100%
Black or African American	100%		100%	100%
Filipino		100%		100%
Hispanic or Latinx	100%	86%	91%	89%
Pacific Islander or HI Native				100%
Unreported	100%	60%	100%	100%
White	95%	95%	99%	98%
Age Group				
17 and Younger	100%	82%	100%	80%
18 to 24	96%	95%	98%	97%
25 to 49	100%	100%	97%	100%
50 and Older		100%	100%	100%
Unreported				

Course Retention Rate	2019-20	2020-21	2021-22	2022-23
Program-Level				
Agriculture Overall Retention Rate	96%	93%	98%	97%
Lassen College Retention Rate	91%	88%	89%	89%
Course-Level				
AGR-1		100%		94%
AGR-10	100%	100%	100%	93%
AGR-11	91%		100%	
AGR-12	83%		100%	
AGR-13	100%		92%	
AGR-14		100%		100%
AGR-19		96%		94%
AGR-2	88%		100%	
AGR-20	100%	89%	100%	92%
AGR-21B	90%	89%	94%	100%
AGR-22	96%	95%	100%	100%
AGR-3	100%		94%	
AGR-31	100%		100%	
AGR-4				100%
AGR-40		100%		100%
AGR-41		100%		91%
AGR-57	100%	50%	100%	100%
AGR-61	100%	100%	94%	100%
AGR-70	100%			
AGR-8	100%		100%	
AGR-9		78%		100%
Modality				
C - Correspondence				
F - Face-to-Face	96%	97%	99%	98%
H - Hybrid		91%	94%	96%
N - Internet				

Awards

Degree and Certificates	2018-19	2019-20	2020-21	2021-22
Agriculture Degrees Awarded	4	3	4	9
Lassen College Degrees Awarded	260	340	297	321
Agriculture Certificates Awarded			1	2
Lassen College Certificates Awarded	128	162	107	137
Degree or Certificate Program				
AA University Studies: Agriculture Science-CSU	1	1		1
Agricultural Animal Science AS for Transfer CSU				3
Agricultural Animal Science AS for Transfer IGETC	1		1	
Agricultural Business AS for Transfer CSU	2	2	2	
AS Agriculture Science and Technology			1	2
Cert. of Achievement Agriculture Science and Technology			1	2

Achievement

Based on your review of the data trends above (e.g., course success, retention, awards) please provide an analysis of achievement gaps and accomplishments in the program.

Based on the above achievement review, the success and retention rates are very good. Most of the success and retention rates are in the 90 percent range. However, we have seen an improvement on degrees issued by almost double from the 2021 year. This being said, there is still a lot of room for improvement in the number of degrees that are awarded each year.

Equity

Based on your review of the data trends above (e.g., course success, retention) please provide a narrative to outline opportunities to address any equity gaps.

The Agriculture staff and faculty work hard to make every person in the department feel comfortable and included. When looking at ethnicity trends the retention rate are very consistent, the only area that has a discrepancy is gender. The female students are more successful in the program by about 15 percentage points.

Student Learning Outcomes

SLO assessment is important to maintain and improve an effective learning experience for LCC students. Evaluating SLO results regularly is helpful for evaluating student learning and identifying emerging program needs. There is a link between SLO assessment results, SLO improvement plans and review of curriculum and/or budget requests. Regular program assessment will drive program improvement. These records are maintained in the online Data Management and Visualization tool (TABLEAU) and are available for review by faculty at any time through its self-updating, interactive dashboards, and reports. Feedback and narrative from the Share Point tool will be included in the reports.

*By contract, faculty are required to prepare and submit an SLO Assessment Plan for each class within one week of the first-class meeting and implementation of the assessment method as indicated on the SLO Plan for each class. Submission of the (a) results of the assessment methods and (b) steps taken as result of the assessment withing five (5) District business days after the last scheduled meeting of the class. Both submissions will be made in accordance with District tracking procedures (I.e., may be paper-based or electronic).

- Provide an analysis of findings of the assessments completed and recommendations being made in individual assessments.
- Consider the impact or influence of the assessment results at the program level.
- Identify and evaluate the Program Student Learning Outcomes including the relationship between course, program and institutional student learning outcomes utilizing information provided by the Office of Institutional Effectiveness.

Course Assessed	Recommendations for Improvement
AGR-1: Agricultural Accounting	None
AGR-2: Agricultural Economics	None
AGR-3: Intro to Agriculture Business	None
AGR-4: AGR Sales and Communication	None
AGR-8: Intro Animal Prod.	None
AGR-9: Food Animal Selection	None
AGR-10: Introduction to Animal Science	None
AGR-11: Beef Cattle Production	None
AGR-12: Animal Heath and Disease	None
AGR-13: Feeds and Feeding	None
AGR-14: Equine Science	None
AGR-19: Introduction to Soil Science	None
AGR-20: Introduction to Plant Science	None
AGR-21B: Intercollegiate Rodeo	None
AGR-22: Rodeo Skills	None
AGR-31: Bovine Embryo Transfer	None
AGR-40: Basic Agricultural Mechanics	None
AGR-41: Farm Tractors & Farm Power	None
AGR-42: Farm Surveying Irrigation	Class has been inactivated
AGR-49: Agriculture Work Exp	None
AGR-57: Beginning Horseshoeing	None
AGR-61: Bovine Reproduction	None
AGR-70: Rodeo Team Roping	None
AGR-116: Pesticide Cont Ed	Class has been inactivated

Program Student Learning Outcomes	Summarize Findings
PSLO 1	Students have been very successful in passing PSLOs
PSLO 2	Students have been very successful in passing PSLOs
PSLO 3	Students have been very successful in passing PSLOs
PSLO 4	Students have been very successful in passing PSLOs
PSLO 5	
Recommendations for Improvement	
Classes are set up for passing SLO and PSLO's by the students. The SLO's are a very important to the success of the class, thus giving students a very good opportunity successfully complete the skill.	

Enrollment Management

Enrollment Management	2019-20	2020-21	2021-22	2022-23
Agriculture Enrollment Overall	186	135	193	205
Lassen College Census Enrollment	14,318	12,243	11,847	11,195
Agriculture Full-Time Equivalent Students (FTES)	34.0	26.8	31.8	36.3
Lassen College Full-Time Equivalent Students (FTES)	1,538.3	1,283.8	1,200.6	1,153.9
Agriculture Number of Sections	18	18	17	16
Lassen College Number of Sections	851	758	818	769
Agriculture Fill Rate	33%	40%	36%	41%
Lassen College Fill Rate	50%	52%	48%	51%
Agriculture Full-Time Equivalent Faculty (FTEF)	2.4	2.5	2.4	2.7
Lassen College Full-Time Equivalent Faculty (FTEF)	79.8	70.7	74.5	72.4
Agriculture FTES/FTEF	14.0	10.8	13.5	13.4
Lassen College FTES/FTEF	20.1	19.0	17.1	16.6

Enrollment	2019-20	2020-21	2021-22	2022-23
Program-Level				
Agriculture Enrollment Overall	186	135	193	205
Course-Level				
AGR-1		11		18
AGR-10	23	11	17	15
AGR-11	11		15	
AGR-12	8		14	
AGR-13	15		12	
AGR-14		8		21
AGR-19		26		33
AGR-2	17		23	
AGR-20	10	9	16	12
AGR-21B	21	9	17	15
AGR-22	26	20	16	18
AGR-3	12		16	
AGR-31	8		14	
AGR-4				14
AGR-40		9		11
AGR-41		5		11
AGR-57	7	8	8	10
AGR-61	12	10	16	16
AGR-70	6			
AGR-8	10		9	
AGR-9		9		11
Modality				
C - Correspondence				
F - Face-to-Face	186	30	161	113
H - Hybrid		105	32	92
N - Internet				

Enrollment	2019-20	2020-21	2021-22	2022-23
Program-Level				
Agriculture Enrollment Overall	186	135	193	205
Gender				
Female	86	60	112	135
Male	100	75	81	70
Unreported				
Ethnicity-Race-Ancestry				
American Indian or AK Native	15	2	8	27
Asian	4			2
Black or African American	5		1	2
Filipino		1		5
Hispanic or Latinx	18	14	34	28
Pacific Islander or HI Native				1
Unreported	14	5	9	5
White	130	113	141	135
Age Group				
17 and Younger	16	28	12	10
18 to 24	160	96	143	163
25 to 49	10	9	36	31
50 and Older		2	2	1
Unreported				

Based on your review of the data trends above (e.g., enrollment, FTES, FTES/FTEF, fill rate) please provide an analysis of efficiency gaps and accomplishments.

Based on the review of the above data enrollment patterns have stayed relatively consistent even showing a slight increase in overall enrollment. Based on individual classes, enrollments are marginal and the classes have been going, however a critical look should be given to the recruitment strategies to try and boost the overall class enrollment numbers.

Curriculum

Degrees and/or Certificates

Degree or Certificate Title	Award Type	Term of Last Revision
Agricultural Animal Science AS for Transfer	AS-T	Fall 2023
Agricultural Animal Science AS for Transfer CSU	AS-T	Fall 2023
Agricultural Animal Science AS for Transfer IGETC	AS-T	
AS Agricultural Business for Transfer	AS-T	Fall 2023
Agricultural Business AS for Transfer CSU	AS-T	Fall 2023
Agricultural Business AS for Transfer IGETC	AS-T	
AA University Studies: Agriculture Science	AA	
AA University Studies: Agriculture Science-CSU	AA	Fall 2023
AA University Studies: Agriculture Science-IGETC	AA	
AS Agriculture Science and Technology	AS	Fall 2023
Cert. of Achievement Agriculture Science and Technology	CA-T	Fall 2023

Provide a narrative of revisions made.

Very few revisions to the degrees where made, moved the AGR 4 (sales and Communications) into the degree pattern as an elective and added to the Agriculture Business degree. All the books on each course where evaluated and all course outlines where reviewed and updated?

Courses

Summarize curriculum revisions, new course adoptions, and/or course deletions r since the last program review. Describe the program accomplishments and/or changes (e.g., major revisions, additions, etc.). All courses need to be submitted to the Curriculum Committee for revision at least once every five years.

Whether changes to a course outline are necessary or not, a Revision to Existing Course Form for each course must be completed and submitted to the Curriculum/Academic Standards Committee for action. If all the courses in the certificate or degree are reviewed at one time, a single Program revision form can be used. If there are changes made to a course, the changes must be noted on the revision form. When reviewing a single course and changes are necessary, indicate the revisions on the form. Where no changes are necessary, simply indicate on the Revision Form that “the course has been reviewed as part of the program review and no changes are necessary.” All program certificates, degrees, PSLO maps, and SLO maps are also required to be reviewed and updated if necessary. PSLO maps require a program revision form and course SLO maps require a course revision form. If all maps are reviewed at the same time, a single program revision form can be used. Advising plans also need to be reviewed and updated. A program revision form is used to review and update the advising plan if necessary. Revision forms will be retained in the Instructional Office with the Curriculum agenda packets.

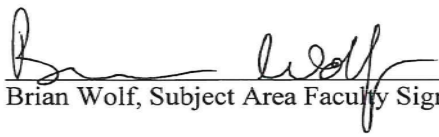
Following the Curriculum/Academic Standards Committee action on all submitted Revision to Existing Course Forms, a summary Instructional Program Curriculum Review Form will be completed by the Curriculum/Academic Standards Subcommittee Chair and given to the program faculty for inclusion in the program review.

The signed Instructional Program Curriculum Review Form is to be included with your completed program review documents for all certificates and degrees.

Agriculture Instructional Program Review
 Status of Curriculum Review December 5, 2023

Course	Curriculum Committee Review Completed	Curriculum Committee Review Not Completed	Course SLO mapping Curriculum Committee reviewed
AGR 1 Agricultural Accounting	10/3/2023		04/06/2021
AGR 2 Agricultural Economics	12/05/2023		04/06/2021
AGR 3 Introduction to Agriculture Business	12/05/2023		04/06/2021
AGR 4 Agriculture Sales and Communication	12/05/2023		04/06/2021
AGR 8 Introduction to Animal Production	10/3/2023		04/06/2021
AGR 9 Food Animal Selection	10/3/2023		04/06/2021
AGR 10 Introduction to Animal Science	12/05/2023		04/06/2021
AGR 11 Beef Cattle Production	12/05/2023		04/06/2021
AGR 12 Animal Health and Disease	12/05/2023		04/06/2021
AGR 13 Feeds and Feeding	10/3/2023		04/06/2021
AGR 14 Equine Science	12/05/2023		04/06/2021
AGR 19 Introduction to Soil Science	12/05/2023		04/06/2021
AGR 20 Introduction to Plant Science	10/3/2023		04/06/2021
AGR 21B Intercollegiate Rodeo	10/17/2023		04/06/2021
AGR 22 Rodeo Skills	10/17/2023		04/06/2021
AGR 31 Bovine Embryo Transfer	12/05/2023		04/06/2021
AGR 40 Basic Agricultural Mechanics	11/7/2023		04/06/2021
AGR 41 Farm Tractors and Farm Power	12/05/2023		04/06/2021
AGR 42 Farm Surveying, Irrigation and Drainage	12/05/2023 Inactivate		04/06/2021
AGR 57 Beginning Horseshoeing	12/05/2023		04/06/2021

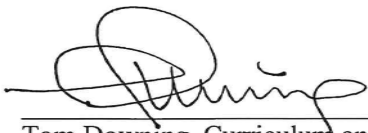
AGR 61 Introduction to Bovine Reproduction	12/05/2023		04/06/2021
AGR 70 Rodeo Team Roping	12/05/2023		04/06/2021
AGR 116 Pesticide Update 'Continuing Education Requirements'	10/3/2023 Inactivate		04/06/2021
Program	Curriculum Committee Review Completed		Program PSLO mapping Curriculum Committee reviewed
AA University Studies: Emphasis in Agriculture Sciences	12/05/2023		05/03/2022
AS Agriculture Animal Science for Transfer	12/05/2023		05/03/2022
AS Agriculture Business for Transfer	12/05/2023		05/03/2022
AS Agriculture Science & Technology	12/05/2023		12/05/2023
Certificate of Achievement - Agriculture Science & Technology	12/05/2023		05/03/2022



Brian Wolf, Subject Area Faculty Signature

12-20-23

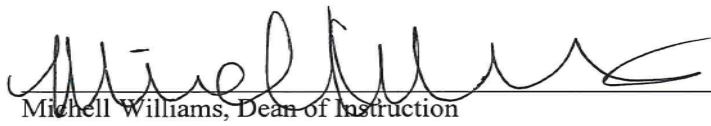
Date



Tom Downing, Curriculum and Academic Standards Committee Chair Signature

12/7/2023

Date



Mitchell Williams, Dean of Instruction

12/20/23

Date

Course	Last Offered	Term of Last Revision
AGR-1: Agricultural Accounting	Fall 2022	Fall 2023
AGR-2: Agricultural Economics	Spring 2022	Fall 2023
AGR-3: Intro to Agriculture Business	Fall 2023	Fall 2023
AGR-4: AGR Sales and Communication	Spring 2023	Fall 2023
AGR-8: Intro Animal Prod.	Fall 2023	Fall 2023
AGR-9: Food Animal Selection	Fall 2022	Fall 2023
AGR-10: Introduction to Animal Science	Fall 2023	Fall 2023
AGR-11: Beef Cattle Production	Spring 2022	Fall 2023
AGR-12: Animal Health and Disease	Spring 2022	Fall 2023
AGR-13: Feeds and Feeding	Fall 2023	Fall 2023
AGR-14: Equine Science	Spring 2023	Fall 2023
AGR-19: Introduction to Soil Science	Fall 2022	Fall 2023
AGR-20: Introduction to Plant Science	Spring 2023	Fall 2023
AGR-21B: Intercollegiate Rodeo	Fall 2023	Fall 2023
AGR-22: Rodeo Skills	Spring 2023	Fall 2023
AGR-31: Bovine Embryo Transfer	Spring 2022	Fall 2023
AGR-40: Basic Agricultural Mechanics	Fall 2022	Fall 2023
AGR-41: Farm Tractors & Farm Power	Spring 2023	Fall 2023
AGR-42: Farm Surveying Irrigation	Inactivated	
AGR-49: Agriculture Work Exp	Fall 2023	Fall 2023
AGR-57: Beginning Horseshoeing	Spring 2023	Fall 2023
AGR-61: Bovine Reproduction	Spring 2023	Fall 2023
AGR-70: Rodeo Team Roping	Summer 2022	Fall 2023
AGR-116: Pesticide Cont Ed	Inactivated	

Provide a narrative of revisions made.

The only changes are the two classes that have been inactivated; these two classes have not been taught for the last 5 years.

Articulation/Integration of Curriculum

- Attach a tabular comparison of Lassen Community College courses articulating with UC and CSU, indicating courses with approved C-ID designations as applicable (Obtain copies of Articulation Agreements from the Transfer Center / Articulation Officer)
- Provide a narrative reviewing the Lassen Community College courses and courses at four-year institutions for course alignment. (e.g., two courses at Lassen needed to articulate with one course at UC) and the unit requirements for Lassen Community College courses as compared to four-year institutions.

External Compliance

Provide a summary of any compliance regulations (e.g., accreditation, accessibility), actions taken, and gaps identified.

The following is a list of courses and their number and transfer information.

Attached you will find a copy of articulation to CSU Chico (most popular transfer university for LCC students)

AGR 1 - Agricultural Accounting

3.0 units

CSU

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

34 hours lecture/51 hours lab

The Study of the principles of agricultural accounting systems and types of records, their use and how to compute, and use measures of earnings and cost of production to improve agribusiness efficiency. Also included are farm income tax, Social Security, and employee payroll records. Application of these concepts and methods through hands-on projects developing computer-based solutions for agriculture business.

AGR 2 - Agricultural Economics

3.0 units

CSU/UC

General Education Area B

CSU GE Area D2

IGETC Area 4B

C-ID AG-AB 124

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

51 hours lecture

Study of agriculture and farming in the economic system; basic economic concepts, and problems of agriculture; pricing and marketing problems, factors of production; and state and federal farm programs affecting the farmer's economic position.

AGR 3 - Introduction to Agriculture Business

3.0 units

CSU/UC

C-ID AG-AB 104

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

51 hours lecture

This course is a survey and basic understanding of the business and economics of the agriculture industry. It is an introduction to the economic aspects of agriculture and their implications to the agricultural producer, consumer and the food system. The management principles encountered in the day-to-day operation of an agricultural enterprise are stressed as they relate to the decision-making process.

AGR 4 – Agricultural Sales and Communication

3.0 units

CSU

34 hours lecture/51 hours lab

The study of principles and practices of the selling process: Selling strategies and approaches, why and how people buy, prospecting, territory management and customer service. Self-management, communication, and interpersonal skills necessary in developing leadership qualities and facilitating teamwork within the agribusiness sector will be explored. Students will gain experience through role-play, formal sales presentations, and job shadowing. The course content is organized to give students an in-depth understanding of the factors and influences that affect the agribusiness industry on a day to day basis.

AGR 8 - Introduction to Animal Production

3.0 units

CSU/UC (Unit limitation)

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

51 hours lecture

This course is specifically designed for students planning to raise livestock for personal use with limited resources, with emphasis placed on its importance in agriculture and to the local and national economy; common breeds, specialty breeds, terminology, and cycles of production; and its importance and use of the basic sciences in the livestock industry.

AGR 9 - Food Animal Selection

3.0 units

CSU/UC (Unit limitation)

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

34 hours lecture/51 hours lab

An introductory survey of the factors involved in the evaluation of market and breeding livestock used for human consumption. Class activities will be a combination of lecture, visual appraisal, performance data, record keeping, and oral presentation. Introductory course does not require student to compete past the local level.

AGR 10 - Introduction to Animal Science

3.0 units

CSU/UC (Unit limitation)

General Education Area A

CSU GE Area B2

IGETC Area 5B

C-ID AS 104

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

34 hours lecture/51 hours lab

This is a course in principles of Animal Science. Topics will include anatomy, physiology, endocrinology, reproduction, molecular and classical genetics, animal health and animal behavior. The course will provide an overview of the origin, characteristics, adaptation and contribution of farm animals to the agriculture industry. Laboratory exercises will provide an introduction to the empirical method including data collection and analysis.

AGR 11 - Beef Cattle Production

3.0 units

CSU/UC (Unit limitation)

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

34 hours lecture/51 hours lab

Principles and practices of purebred and commercial beef production on farm and range. Feeding, breeding management, housing, health, equipment, marketing, record keeping and other basic factors underlying successful beef production.

AGR 12 – Animal Health and Disease

3.0 units

CSU/UC

34 hours lecture/51 hours lab

Study of common livestock diseases and fundamentals of immunity; includes the livestock technicians role in promoting animal health and the foundation of disease control programs.

AGR 13 - Feeds and Feeding

3.0 units

CSU/UC

C-ID AG-AS 132L

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

34 hours lecture/51 hours lab

The science of animal nutrition; the fundamentals of digestion and absorption in both ruminants and non-ruminants is discussed. The nutritive value of feedstuffs as they related to the formulation of livestock rations will be emphasized.

AGR 14 – Equine Science

3.0 units

CSU/UC

C-ID AG-AS 116L

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

34 hours lecture/51 hours lab

Survey of the equine industry, encompassing the evolution and role of the equine species throughout history, breed selection and development, nutrition, disease, preventative health, reproductive management, basic horsemanship and stabling alternatives.

AGR 19 – Introduction to Soil Science

3.0 units

CSU/UC

GE Area A

CSU GE Area B1

IGETC Area 5A

C-ID AG-PS 128L

34 hours lecture/51 hours lab

The study of soil, physical, chemical and biological properties. Soil classification, derivation, use, function and management; including erosion, moisture retention, structure, cultivation, organic matter and microbiology. Laboratory topics include soil type, classification, soil reaction, soil fertility and physical properties.

AGR 20 - Introduction to Plant Science

4.0 units

CSU/UC

General Education Area A

CSU GE Area B2

IGETC Area 5B

C-ID AG-PS 106L

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

51 hours lecture/51 hours lab

This course is an introduction to plant science including structure, growth processes, propagation, physiology, growth media, biological competitors, and post-harvest factors of food, fiber, and ornamental plants.

AGR 21B - Intercollegiate Rodeo

3.0 units

CSU

General Education Area E2

170 hours lab (R)

Intercollegiate rodeo competition – men and women. Since skills/proficiencies are enhanced by supervised repetition and practice, this course is repeatable to a maximum of three enrollments but can only be taken once per year.

AGR 22 - Rodeo Skills

3.0 units

CSU

153 hours lab

This course is an introduction and practice in the basics of Rodeo Skills. Since skills/proficiencies are enhanced by supervised repetition and practice, this course is repeatable to a maximum of three enrollments but can only be taken once per year.

AGR 23 - Western Riding and Training

2.0 units

CSU

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

17 hour lecture/51 hours lab

This course specializes in the many phases of Western riding and training. It will bring together material which is important to the student interested in horses as a career. This course will enable the student to show and compete more successfully in the horse industry. It prepares the student to enter the horse business as a riding instructor, trainer or manager.

AGR 30 - Team Roping

3.0 units

CSU

170 hours lab

The study and practice of the fundamentals and techniques of the professional and amateur team roper. Includes safety, technique and horse mastery related to team roping. Skills and proficiencies in this course are enhanced by supervised repetition and practice within class periods.

AGR 31 - Bovine Embryo Transfer

3.0 units

CSU

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

42.5 hours lecture/25.5 lab

This course is designed to present Bovine Embryo Transfer subject matter in a seminar format. The embryo transfer process and how it relates to the cattle industry will be studied.

AGR 40 - Basic Agricultural Mechanics

3.0 units

CSU

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

17 hour lecture/102 hours lab

A course designed to teach basic skills required in a farm shop, which includes, but is not limited to equipment repair, metal work, hydraulics and farm construction.

AGR 41 - Farm Tractors and Farm Power

3.0 units

CSU

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

17 hour lecture/102 hours lab

The selection, use, application, operation, service, maintenance, adjustment and handling of minor repairs of wheel

and track-type farm tractors. Principles of operation of internal combustion engines will be taught through practical application.

AGR 49 - Agricultural Work Experience 1.00–8.00 units

CSU

General Education Area E1

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

75-600 hours lab (R)

This work based learning course is designed to assist students with educational or career goals in agriculture, who are working in the field of agriculture, to build related job specific skills through individualized learning objectives and enhance their workplace performance. All Work Experience enrollments require attendance of a face-to-face orientation session. Instruction is also provided through online course modules and emails throughout course term, work based learning with a participating supervisor, and meetings in office or at student worksite. Instruction focuses on goal setting to develop job specific skills, enhancement of soft skills in the workplace, and career development. Subsequent enrollments require new individualized learning objectives, and completion of new course module assignments. Units are awarded based upon achievement of approved learning objectives, workplace performance, submission of course assignments, and documentation of work hours. Enrollment in Work Experience courses is limited to a maximum of 16 units, including all Career Technical Education, Occupational and General Work Experience enrollments. Title V specifies students will earn 1 unit of credit for each 75 hours of paid work, and 1 unit of credit for each 60 hours volunteer work. This course has been approved for Hybrid delivery

AGR 57 - Beginning Horseshoeing

3.0 units

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

24 hours lecture/68 hours lab

An introduction to the shoeing of horses, utilizing both hot and cold shoes. Also included will be the anatomy and physiology of the horse's hooves with the ability to identify blemishes and soundness. Use of the forge and the making of shoes from bar stock will be presented in addition to the instruction of actually shoeing horses.

AGR 61 - Introduction to Bovine Reproduction

1.5 units

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

17 hour lecture/25.5 hours lab

This course is designed to give students an understanding of bovine reproduction. This course will focus on the application of artificial insemination and estrous synchronization. During this course both male and female reproduction will be discussed. The course is designed to give students the ability to understand and master the skills of artificial insemination.

AGR 70 - Rodeo Team Roping

1.0 unit

48 hours lab (1 week)

This course is designed for those students interested in expanding their skills in horsemanship, cattle work and team cooperation. This course is highly competitive and will address every phase of team roping. Skills and proficiencies in this course are enhanced by supervised repetition and practice within class periods.

The course offering are working well for the current students in agriculture. The majority of the students are transferring to a university as shown in the student data above. However if we want to tap into a new group students the vet tech degree needs to be implemented. This would open us up to a new pool of students from all around the state, as there is a shortage of these programs.

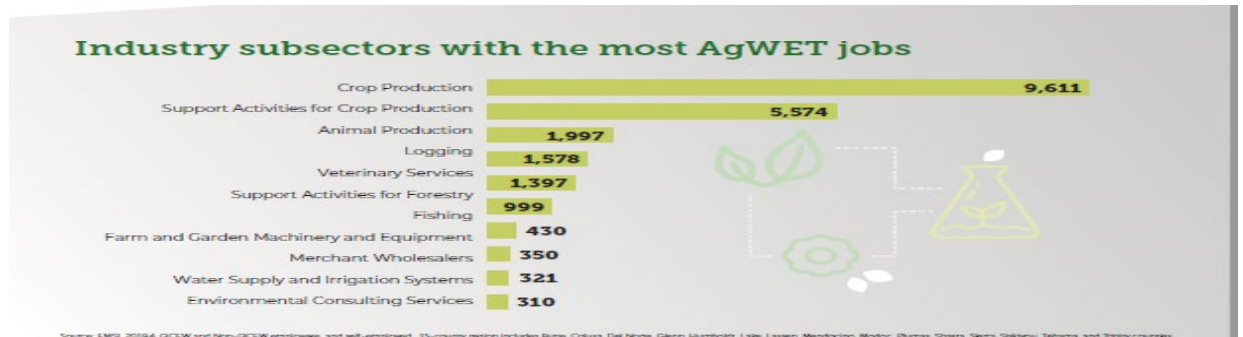
External Analysis: Job Market Assessment

Provide a summary of Industry Advisory Board suggestions and market data. The market data will be populated for Career Technical Education programs only

Working with the Agriculture advisory team, there has been many changes to the curriculum and degrees. The major changes has been the inactivation of the irrigation and pesticides classes. These classes were not offered on a regular basis, the offering was limited because of the lack of equipment and property for the classes to be taught.

The agriculture department with the advisory team have seen a need in the data for a

Veterinarian Technician Certificate program. Lassen College has a unique opportunity to provide the Vet Tech Certificate that will allow students another certificate option that provides them the opportunity to go directly into industry with a high living wage. The Far North Region Workforce data supports that this industry is in need of workforce see information below from a 2022 report. Some initial estimating on the student demand for a Veterinarian Technician Certificate and found a great need for a program in the north state. This could be a very high demand programs for students but comes with very high cost and need for set up.



What are employers looking for?

Hardest-to-fill jobs

Job Title	# of Job Postings	Days to Fill
Veterinary Technologists and Technicians	30	45
Veterinary Assistants and Laboratory Animal Caretakers	22	501

Most in-demand jobs


Job Title	# of Job Postings	Demand
Sales Representatives, Wholesale and Mfg, Except Technical and Scientific Products	180	Very High
Heavy and Tractor-Trailer Truck Drivers	139	Very High
Maintenance and Repair Workers	43	Very High
Veterinary Technologists and Technicians	30	Medium
Forest and Conservation Technicians	24	Low

Most desired certifications

- Driver's license
- Certified pest control
- Applicator's license (pest control)
- Certified arborist
- Forklift operator certification
- Hazardous Waste Operations and Emergency Response (HAZWOPER)

Most desired skills

- Customer service/customer contact
- Sales
- Scheduling
- Retail industry knowledge
- Repair
- Budgeting
- Forklift operation
- Quality assurance and control
- Business process
- Staff management



Data from Demand Tool from Centers of Excellence from June 2023 data:

SOC Code	Occupational Title	Entry Level Education	2018 Jobs	2018-2028 Total Job Openings	Annual Job Openings
29-1131	Veterinarians	Doctoral or professional degree	320	190	19

29-2056	Veterinary Technologists and Technicians	Associate's degree	290	310	31
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	High school diploma or equivalent	290	550	55

Wage information from Onet.org:

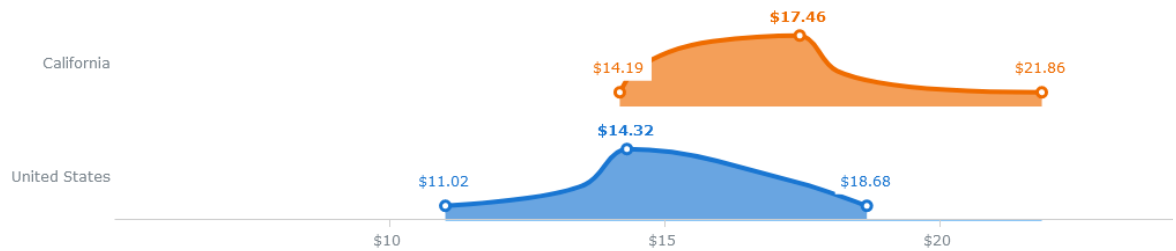
31-9096.00 - Veterinary Assistants and Laboratory Animal

Caretakers

Bright Outlook

Annual Wages

Hourly Wages



In California:

- Workers on average earn **\$17.46** per hour.
- 10% of workers earn **\$14.19 or less** per hour.
- 10% of workers earn **\$21.86 or more** per hour.

In the United States:

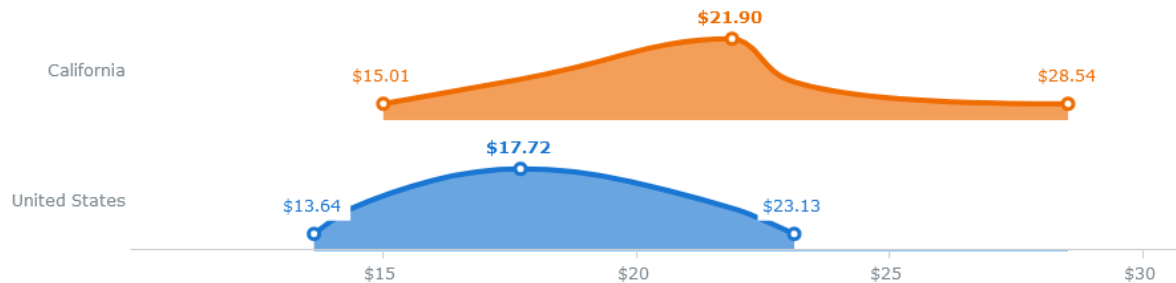
- Workers on average earn **\$14.32** per hour.
- 10% of workers earn **\$11.02 or less** per hour.
- 10% of workers earn **\$18.68 or more** per hour.

29-2056.00 - Veterinary Technologists and Technicians

Bright Outlook

Annual Wages

Hourly Wages



In California:

- Workers on average earn **\$21.90** per hour.
- 10% of workers earn **\$15.01 or less** per hour.
- 10% of workers earn **\$28.54 or more** per hour.

Program Planning and Communication Strategies

Describe the communication methods and interaction strategies used by your program faculty and administrators to discuss program-level planning, curriculum, SLOs, PSLOs, equity, student achievement, and institutional performance data.

The Agriculture program faculty have a close working relationship with the CTE Dean. The Dean is actively involved in classes and has a vital role on the Advisory Committee.

Academic Planning Analysis Summary

Summarize the key findings from the program analysis and outline opportunities for change.

The Agriculture program is going along very consistently for the past several years. It is the thought of the Agriculture advisory that an increase or growth needs to happen. The committee is in support of a Vet. Tech program. The challenge is the cost of the program; it requires an extensive laboratory facility.

Section 2: Human Resource Planning

Workload and Staffing Assessment

Year	F/T Faculty	P/T Faculty
Previous Year	1	3
Current Year	1	3
Next 2 Years	2	3

Provide a narrative that describes the program's faculty staffing trends and develop a projection for the two years. Discuss the extent to which your current faculty staffing structure meets or does not meet your program's needs and/or initiatives. Please describe what strategies will be used to diversify your staffing (e.g., education, expertise/skillsets, areas of interest, demographics).

The Agriculture department is handling classes with the current instructors, usually with a small overload. There is one full time faculty member and numerous part time faculty members currently employed by the college for the agriculture department. The industry is growing in several areas and the Lassen College Agriculture program could grow with some recruitment. With increase, a new faculty would have to be hired to help with the new class load.

The agriculture program has one part time ISS position and just added a agriculture maintenance position. This new position is making a difference but there is a lot of things to get caught up on so the additional job are being handled with student workers and faculty. The Agriculture facilities are a critical area as it is a hub for most of the students and a first contact point for new and prospective students. At this point, the program is planning for expansion; a full time faculty replacement position is necessary. If Vet Tech is a serious consideration, so should an increase in full time faculty in agriculture. This would set the program for sustainable growth. Agriculture has the ability to grow student numbers, however if numbers grow there is not enough staff to maintain the contact with the students.

Professional Development

Provide a description and associated outcomes related to the program's target professional development participation over since the last program review. Discuss the current professional development/training need(s) of your program, and why this need(s) exists. If you have specific trainings you want to request, please include those details.

It is very important for the faculty to stay active in the discipline. The following are a few of the yearly activities that the faculty are involved. With a fast changing industry it is a must to keep up with current industry trends.

The events for the past two years are listed below:

1. California Cattlemen's Association- Local and state
2. NCBA

3. California Agriculture Teachers Association – Local – Sectional - State
4. Lassen county Fair carcass contest
5. Lassen County Fair Board Member
6. State and Local Farm Bureau
7. Pork Producers Council meeting
8. 4-H and FFA Skills days – Local and Regional

Section 3: Infrastructure Planning

Facilities

- Describe and evaluate the Lassen Community College facilities available to the program.

The field of agriculture is a highly science based field. This requires lots of lab work and equipment. We do not currently have an adequate space to conduct lab classwork. We have an existing barn that was built with lab classrooms included in the plans however, those were never completed. Having these classrooms would greatly enhance the student experience and success in courses.

- Describe and evaluate additional facilities utilized off-campus by the program
None
- Describe any facilities needs identified internal or external analysis

The current classroom has been renovated and is greatly improved. The need of a laboratory area for current courses as well as future vet tech classes is greater than ever. The current animal holding and handling facilities are a work in progress but are still below industry standards and need continued upgrading. The greenhouse is failing more every year; the vet fan cannot regulate temperature. This green house has poor access for student and is inefficient for student use.

- Justify any proposed modifications or additions to existing facilities that would better serve the program planned for the program review cycle.

A new laboratory classroom area would greatly enhance the student success and ability to expand the lab portion of the current and future classes. Along with upgraded animal holding and handling facilities to promote student learning. A new green house needs to move to the top of the list, it is borderline unsafe.

An agriculture safety fence is needed, this would help keep animals in and unwanted visitors out.

Equipment

- Describe and evaluate equipment and equipment support provided for instruction and instructional support

Trucks	License Number	Life expectancy
2000 ford diesel	e1030686	1 years (needs work)
2000 ford ranger	_____	1 year (needs work)
2018 Ford Diesel		10 years

Trailers	License number	
6 horse slant Sooner	1030681	5 years
Titan stock combo		15 years
Econ-lite	1000600	1 year
Flat bed Gooseneck	e318139	needs work
Flat bed pull trailer	_____	needs work
Ford Tractor	Carl Moyer	not usable
John Deere Tractor 90 horse		5 years
John Deere Tractor 70 horse		10 years
Greenhouse		Insufficient

Miscellaneous equipment for the agriculture department

√ computers with printers	
√ Miller Welder	
√ New Lincoln welder /with hand tools in trailer	New
√ Cutting torch and tanks	5 year
√ Grinder	
√ Tool Chest	
√ Hi-Qual Squeeze chute	5 years
√ Hi-qual Sweep and Crowd alley	5 years
√ True test Scale	5 years
√ Ultra sound/ new	10 years
√ Semen tank	10 years
√ 8 Compound Microscopes	1 years
√ 6 dissecting microscopes	1 years
√ 6 horse-shoeing forges	5 years
√ Incubator	5 years
√ Embryo Freezer	old needs replaced
√ 1 cattle blowers	5 years
√ 1 fitting stations	5 years
√ 8 fence line feeders	15 years
√ Show box	5 years
√ Brush mower for tractor	10 years
√ Welding trailer	10 year
√ Repro simulator	10 years
√ Two sets of aluminum bleachers	12 years

- √ Ultrasound machine
- √ Microscopes

10 years
Needs replaced

Equipment is always an important need for a vocation program, however the biggest place of improvement for equipment would be an up-to-date green house. The current one is old and requires constant maintenance. It is also very cumbersome with a full class trying to work as it is too small with very poor ventilation.

The second big need would be equipment and facilities to start a vet tech program.

Technology

- Describe and evaluate technology and technology support provided for instruction and instructional support.
 - Agriculture has a working laptop and a smart board in the classroom.
 - The department has a new printer.
- Justify any proposed modifications or additions to existing technology that would better serve the program planned for the next four years.
 - Technology changes so quickly there is always a need; some of the new technology in agriculture is animal management and tracking systems. This is a computer software system that works with each animal individually for record keeping and disease trace back systems. I would be very beneficial for the students to invest in the Grow Safe technology for the animal science students. I could list many others from drones to measure water content to smart tags, which record all animals' functions and can report back to your phone.

Section 4: Program Planning

Progress update on previous action plans

Many things have been accomplished since the last program review, first the sales and communication class was approved and taught for the first time. Second initial research was started on the Vet. Tech Program. Third facility improvement is under way, pipe for feedlot pens and a stock tool trailer for the Agriculture mechanic class is in working order.

Action Plan	Progress Detail	Outcomes
AGR 4	done	Increase studnets
Vet. Tech investigation	Researching curriculum and facilities	Increase student numbers
Ag Mechanics Tool trailer	done	Increase student access

Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis

Complete SWOT analysis

Strengths	Small Program, Hands on Experience, Industry connected faculty and staff
Weaknesses	Lab facilities, (greenhouse), Barns, building, shop access
Opportunities	Room for growth
Threats	Funding and Lab facilities

Program Plan

Develop a program action plan based on the findings of the SWOT Analysis. The plan should specify should aligns with one or more College Goals. SLO maps may be utilized to help show the connection. Agriculture program action plan has not changed in the last couple of years. The program needs to expand laboratory facilities and get staff to maintain the facilities. Most of the classes taught have labs attached to them, with the exception of a couple classes they need to use off campus community facilities to maintain the labs. There needs to be an agriculture shop for the tractors class to work in the bad weather, and could double as a lab classroom for the Mechanized agriculture class. The green house on campus is substandard for classes and activities and is extensively used for the plant science class. Creating Veterinary Technician program show a very large demand with students and employers alike. This program could start and fill as soon as there are facilities/instructor in place to handle the classes.

- How do the action plans align with the mission of the college?
Student Success is very important, this would help minimize barriers for students and increase their learning opportunity
- What strategic goals do the action plans support?
Learning Opportunity
Student Success
Resource management
- What ISLOs do the action plans support?
Life Long Learning
- What specific evidence (e.g., SLOs, data) support the action plans?

To accomplish the following SLO we must have a place for student to propagate plants

AGR 20 Introduction to Plant Science (SLO)

1. Analyze and make recommendations to improve the various conditions impacting the successful propagation of a specific plant species

- Based on the action plans what resources are needed?

Money

- What are the expected outcomes of the action plans?

The expected outcome of this plan is to understand the importance of laboratory facilities and make the step to improving the facilities

- What is the total cost of bringing the action plan to life?

It is very expensive, but could be taken in continuous steps

