

Agriculture IPR

LASSEN COMMUNITY COLLEGE

(Brian Wolf, Agriculture Department, January 2020)

Accepted by Academic Senate: (4/14/2021)

Accepted by Consultation Council: (4/26/2021)

Accepted by Governing Board: (5/11/21)

CONTENTS

SECTION 1: ACADEMIC PLANNING	3
I. PROGRAM OVERVIEW, OBJECTIVES, AND STUDENT LEARNING OUTCOMES	3
DESCRIPTION/EVALUATION:	4
PLANNING AGENDA:	11
II STUDENT OUTCOMES	12
A. TRENDS AND PATTERNS IN STUDENT OUTCOMES	12
DESCRIPTION/EVALUATION:	12
PLANNING AGENDA:	21
B. STUDENT LEARNING OUTCOME ASSESSMENT	22
DESCRIPTION/EVALUATION:	22
PLANNING AGENDA:	25
C. STUDENT EVALUATION SUMMARY	25
DESCRIPTION/EVALUATION:	26
PLANNING AGENDA:	26
III. CURRICULUM	27
A. DEGREES AND/OR CERTIFICATES	27
DESCRIPTION/EVALUATION:	27
PLANNING AGENDA:	35
B. COURSES	35
DESCRIPTION/EVALUATION	35
PLANNING AGENDA:	36
C. ARTICULATION/INTEGRATION OF CURRICULUM	37
DESCRIPTION/EVALUATION:	37
PLANNING AGENDA:	38
III. SCHEDULING AND ENROLLMENT PATTERNS	38
DESCRIPTION/EVALUATION:	38
PLANNING AGENDA:	39
IV. EQUIPMENT	40
DESCRIPTION/EVALUATION:	40
PLANNING AGENDA:	42
V: OUTSIDE COMPLIANCE ISSUES (IF APPROPRIATE FOR PROGRAM)	42
DESCRIPTION:	42
EVALUATION:	43
PLANNING AGENDA:	43
VI. PRIORITIZED RECOMMENDATIONS	43
A. PRIORITIZED RECOMMENDATIONS FOR IMPLEMENTATION BY PROGRAM STAFF	43
B. PRIORITIZED RECOMMENDATIONS FOR INCLUSION IN THE PLANNING PROCESS	43
PRIORITIZED RECOMMENDATIONS FOR INCLUSION IN EDUCATION MASTER PLAN	43
PRIORITIZED RECOMMENDATION FOR INCLUSION IN STUDENT SERVICES MASTER PLAN	44

PRIORITIZED RECOMMENDATIONS FOR INCLUSION IN INSTITUTIONAL EFFECTIVENESS MASTER PLAN..	45
SECTION TWO: HUMAN RESOURCE PLANNING	46
I. PROGRAM STAFFING.....	46
DESCRIPTION/EVALUATION:	46
PLANNING AGENDA:	46
II. PROFESSIONAL DEVELOPMENT	47
DESCRIPTION/EVALUATION:	47
PLANNING AGENDA:	47
III. STUDENT OUTCOMES	47
DESCRIPTION/EVALUATION:	47
PLANNING AGENDA:	48
IV. PRIORITIZED RECOMMENDATION	48
PRIORITIZED RECOMMENDATIONS FOR IMPLEMENTATION BY PROGRAM STAFF.....	48
PRIORITIZED RECOMMENDATIONS FOR INCLUSION IN THE PLANNING PROCESS	48
PRIORITIZED RECOMMENDATIONS FOR INCLUSION IN HUMAN RECOURSE MASTER PLAN.....	48
SECTION THREE: FACILITIES PLANNING	49
I. FACILITIES.....	49
DESCRIPTION/EVALUATION:	49
PLANNING AGENDA:	50
II. PRIORITIZED RECOMMENDATIONS	50
PRIORITIZED RECOMMENDATIONS FOR IMPLEMENTATION BY PROGRAM STAFF.....	50
PRIORITIZED RECOMMENDATIONS FOR INCLUSION IN THE PLANNING PROCESS	50
PRIORITIZED RECOMMENDATIONS FOR INCLUSION IN THE FACILITIES MASTER PLAN	50
SECTION FOUR: TECHNOLOGY PLANNING	51
I. TECHNOLOGY	51
DESCRIPTION/EVALUATION:	51
PLANNING AGENDA:	51
II. PRIORITIZED RECOMMENDATIONS.....	51
PRIORITIZED RECOMMENDATIONS FOR IMPLEMENTATION BY PROGRAM STAFF.....	51
PRIORITIZED RECOMMENDATION FOR INCLUSION IN THE PLANNING PROCESS.....	51
PRIORITIZED RECOMMENDATIONS INCLUSION IN INSTITUTIONAL TECHNOLOGY MASTER PLAN	52
APPENDIX A:	53
APPENDIX B:.....	57
APPENDIX C:	58
APPENDIX D:	59
APPENDIX E:.....	60

Agriculture IPR

SECTION 1: ACADEMIC PLANNING

I. Program Overview, Objectives, and Student Learning Outcomes

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 29 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 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.

Upon completion of the **Certificate of Accomplishment in Horsemanship**, the student will be able to:

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

Upon completion of the **Certificate of Accomplishment in Agriculture Irrigation** the student will be able to:

1. Analyze and make recommendation to improve the soil and positively impact the successful propagation of Plants.
2. Students will be able to implement at least two different irrigation systems.
3. Explain water movement in soil and understand water holding capacity.

Description/Evaluation:

- a. Describe and evaluate the program objectives against the LCC strategic plan, specifically the mission statement and strategic goals [available online or in the current catalog].

The mission and goals of the agriculture department parallels the mission and strategic goals of LCC. The Agricultural department strives to provide an outstanding program for all students pursuing higher education goals or working to gain employment. The objective of the agricultural department is to develop future leaders in the agriculture industry which meets the local and global community needs. This is a broad and very complex industry, the departments goals are to have well rounding individuals that can step into an operations or move on to a university seamlessly. The department offers a wide variety of study in the field of agriculture.

- b. 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.

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 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 a 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 23 Western riding and training

Demonstrate and analyze riders for western riding form and position at the walk jog and lope.

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 metal work
- 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 42 Farm Surveying, Irrigation and Drainage
 - 1. Students will be able to properly address irrigation concerns and implement solutions
 - 2. Students will be able to implement at least two irrigation systems
- AGR 50 Basic Riding
 - 1. Perform groundwork in preparation for riding
 - 2. Demonstrate proper body position when riding
- AGR 51 Horsemanship
 - 1. Perform lateral and vertical flexing in preparation for natural horsemanship skills
- AGR 53 Colt Training
 - Analyze a young horse, identify and apply appropriate ground training, loading and initial riding techniques
- 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.
- AGR 116 Pesticides update “Continuing Education”
 - Properly identify correct pesticide and application procedure for a given situation.

- c. Evaluate any changes in the program since last review. Include summary of Annual Updates completed since last review.
- The agriculture department has been updating the program to better fit the needs of our students and industry. The Agriculture Advisory Committee along with the agriculture faculty has made changes and most of them are in place. The Agriculture Advisory board has voted to start a new degree, this is a degree that uses the same classes but will package them in a new way with one additional class. The degree will be the seed to sale concept, the classes and the proposed degree is in the recommendation section. This concept will take a set of classes and develop a comprehensive project that all the classes can be involved with. This will give the students a central theme and a hands on aspect to every class.

The new recommendation from the advisory board is a new program listed below. (See attached Ag advisory minutes Appendix A) This program will take students

through a comprehensive food production system. The trend in food production is changing and the average consumer is more concerned about what is in their diet. With this in mind, the following degree program has been developed. The program will be focused on beef production. However, with beef production almost all aspects of agriculture are touched. The genetic side will be discussed as the program will include selections and development of the product. The animals will be selectively mated in the Embryo transfer class. This class using DNA results with expected progeny differences (EPDs) will design a product for the consumers. The calf resulting from this will be delivered and raised through the Beef Production Class. When the calf is weaned its new ration will be created and monitored by the feeds and feeding class along with health and disease class monitoring and testing. The Plant Science class will be growing and testing fodder for the feed ration trying to develop a better more energy friendly forage product for cattle. As animals grow they will be evaluated by the Animal Selection class, this class will use ultrasound technology to predict the proper time for harvesting. The class will also follow up at the packing house doing a full carcass evaluation and cut sheet workup. This program will take students through the full food production chain along with keeping all records in an Accounting class. The Agriculture Sales and Communication class will handle all of the sales of the beef. The sales will target social media and farmer markets. With the food and agriculture industry moving to more small business in food production, this degree should be right in line with the current industry. These graduates will be able to be hired right into a small food production business or run their own business. As a side some of the genetics that will be developed could be marketed through Leachman Cattle Company. This is a large scale beef genetics business that has contacted us about helping them produce genetics for their customers. They are very excited that we are looking at feed efficiency and rate of gain in our program. This has potential to fit into this program as they have offered to use all the students that go through this program an internship. As this develops the degree might add a required internship course.

In the beginning stages of this program, the department will seek donations of animals until the sale of product can sustain the cost of the degree program.

Seed to Sale Degree Program courses:

AGR 1 Agriculture Accounting

AGR 9 Food Animal Selection

AGR 10 Animal Science

AGR 11 Beef Cattle Production

AGR 13 Feeds and Feeding

AGR 19 Animal Health and disease

AGR 20 Plant Science

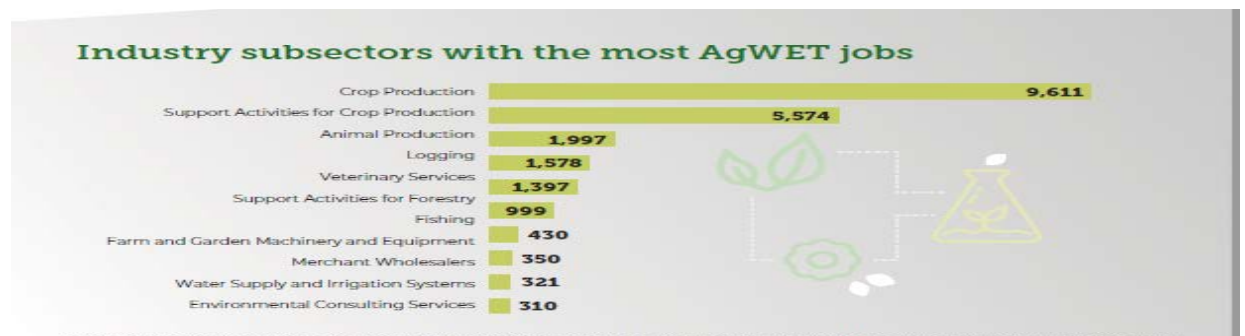
AGR 31 Bovine Embryo Transfer

AGR 4 *Agriculture Sales and Communication (new course)*

Two additional student organizations are also being developed Livestock Judging Team and Livestock Showing Team. These two organizations are will greatly enhance the current agriculture program. It allows students to compete in agricultural

competitions that align with some of the courses currently being taught. These organizations will allow students to engage with industry personnel and represent the college in recruitment type activities. There will be costs for these organizations including uniforms for participants, entry fees, and travel costs. At this point the animals for the showing teams will be leased with the lease costs being donated. Currently, the agricultural department has facilities in place for housing the animals. Students often choose colleges that offer these types of competitions and then further their education to four year institutions and become competitive for scholarships related to these competitions. This will assist in recruitment activities and increasing enrollment in the agricultural department.

The program is considering two other course expansion opportunities including leadership courses and a Veterinarian Technician Certificate program. Integrating agricultural leadership courses into our existing certificate and degree programs provides high quality educational opportunities for our students. The agricultural department goals include developing future leaders in Agriculture, therefore providing educational opportunities in leadership will help the department meet its goals. Community Colleges have a unique opportunity to The Vet Tech Certificate will allow students another certificate option that provides them the opportunity to go directly into industry with a high living wage option of \$15-\$23 in Far North and \$16-\$37 in North Region. The Far North Region Workforce data supports that this industry is in need of workforce see information below from a 2020 report.



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



- d. Analyze program-related promotional materials/advertising as appropriate

Advertising and recruitment for the program remain an important need. The college has one full time recruiting position for the entire campus. This is inadequate to provide recruitment for the agriculture department. Some materials we are creating include a YouTube video highlighting the program. This needs to be distributed to a wider audience and more viewable on our website. The current college website does not adequately spotlight the offerings of the agricultural department. Having the ability to post more pictures, videos, and career opportunities would greatly benefit the department.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Student Services Planning, and/or Institutional Effectiveness Planning tables at the end of the section for any recommendations requiring institutional action.

The new degree plan needs to be approved for students to take full advantage of the course offerings. Extensive need in classroom upgrades is needed. Currently the agricultural classroom has areas that are carpeted and then areas that are not carpeted which presents

a tripping hazard for students. The classroom also has large open holes in the walls that allows cold outside air to come in. Our classroom does not represent the agricultural department nor LCC well. There are mismatched tables and chairs for students and some of those are broken and barely functional. 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. The advisory committee has also approved the offering of a new degree program that is highly desired in industry. This Seed to Sale degree program needs to be approved. All coursework has been approved for instruction however, the degree needs local and chancellor's office approval. The area of Veterinarian Medicine is a highly regarded workforce area. The development of a Vet Tech Certificate can enhance the program and allow students an avenue to go directly into the workforce. A new laboratory space is necessary for this certificate to be taught. Surgery areas, livestock handling areas, vet tech equipment is necessary to teach this certificate. Having an area where local vets could donate time to show students certain procedures and techniques will be essential. Veterinarian Technicians achieve a living wage and are showing growth and demand in the area according to the LMI data. Student life is an important part of student success. The agriculture department would like to develop two new student clubs including a livestock judging team and livestock showing team. This would increase peer to peer recruitment and allow students to make important industry contacts through engagement in these teams. The agriculture department would also like to start incorporating leadership courses and potentially an Ag Ambassador Student club. These leadership courses would enhance the existing degree and certificate offerings. These new offerings would also follow the LCC Mission and Strategic Goals.

II Student Outcomes

A. Trends and Patterns in Student Outcomes

Description/Evaluation:

1. Provide in tabular form followed by an analysis
 - a. Number of degrees and certificates awarded during the last four years.

Awards by Academic Year and Type

Academic Year	Award	Award Count
2012	AS Agriculture Science and Technology	2
	Cert. of Achievement Agriculture Science and Technology	1
	AA University Studies: Agriculture Science	2
2013	AS Agriculture Science and Technology	1
	Cert. of Achievement Agriculture Science and Technology	1
	AA University Studies: Agriculture Science	2
2014	AA University Studies: Agriculture Science	2
2015	AA University Studies: Agriculture Science-CSU	1
	AA University Studies: Agriculture Science-IGETC	1
	AA University Studies: Agriculture Science	3
2016	AS Agriculture Science and Technology	4
	Cert. of Achievement Agriculture Science and Technology	2
	AA University Studies: Agriculture Science-CSU	5
	AA University Studies: Agriculture Science-IGETC	1
2017	AS Agriculture Science and Technology	1
	Cert. of Achievement Agriculture Science and Technology	1
	AA University Studies: Agriculture Science-IGETC	1
	Agricultural Animal Science AS for Transfer CSU	1
2018	AS Agriculture Science and Technology	5
	Cert. of Achievement Agriculture Science and Technology	2
	AA University Studies: Agriculture Science-CSU	3
	Agricultural Business AS for Transfer CSU	1
	Agricultural Animal Science AS for Transfer CSU	1
Agricultural Animal Science AS for Transfer IGETC	1	
2019	AA University Studies: Agriculture Science-CSU	1
	Agricultural Business AS for Transfer CSU	2
	Agricultural Animal Science AS for Transfer IGETC	1

Decrees and Certificates Awarded By Academic Year



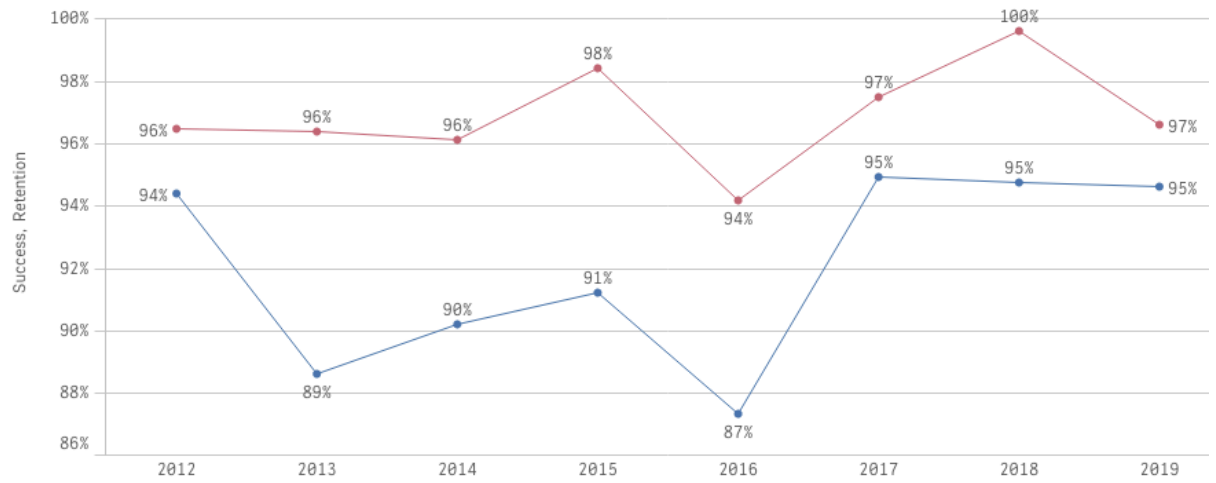
b. Transfer numbers for the last four years

Transfers: LCC AG Program Graduates who Transferred to Another Institution and Achieved a Higher Award Since May 2012

Award Type:	Degree Title:	Degree Major:	Award Year:	Institution:
Bachelors	Bachelor of Science	Animal Science	2020	CSU - Chico
Bachelors	Bachelor of Science in Business Administration	Management	2019	University of Nevada - Reno
Bachelors	Bachelor of Science	Animal Science	2019	Montana State University - Bozeman
Bachelors	Bachelor of Science	Animal Science	2019	CSU - Chico
Bachelors	Bachelor of Science	Agricultural Business (BS)	2019	CSU - Chico
Bachelors	Bachelor of Science	AGRI: Agri Science & Ed (BS)	2018	CSU - Chico
Bachelors	Bachelor of Science	Agricultural Business (BS)	2018	CSU - Chico
Bachelors	Bachelor of Science	Agribusiness and Food Industry Management	2016	California State Polytechnic University - Pomona
Associates	Associate of Applied Science	Veterinary Technology	2018	Truckee meadows Community College
Other:	Credential	Agriculture	2019	CSU - Chico
Other:	Credential	Agriculture Specialist	2019	CSU - Chico

c. Completion, retention and success data for the last four years

Student Success and Retention



Retention and Success by Academic Year

Academic Year	Census Enrollment	Retention	Success
Totals	1,706	97%	92%
2019	201	97%	95%
2018	206	100%	95%
2017	273	97%	95%
2016	204	94%	87%
2015	181	98%	91%
2014	203	96%	90%
2013	244	96%	89%
2012	194	96%	94%

Student Success and Retention by Class (Section), Academic Year and Semester

Class (Section)	2012				2013						2014						
	FA		SP		SU		FA		SP		SU		FA		SP		
	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	
AGR-1-M0825	81%	90%											79%	100%			
AGR-10-M0399																	
AGR-10-M4404									83%	97%							
AGR-11-M0022	100%	100%											90%	100%			
AGR-11-M3955																	
AGR-116-M4505			100%	100%							100%	100%				100%	100%
AGR-12-M3795																	
AGR-12-M4876																	
AGR-13-M0445								73%	92%								
AGR-14-M4114										75%	100%						
AGR-14-M4483																	
AGR-19-M0622																	
AGR-19-M0683																	
AGR-2-M4578										96%	100%						
AGR-20-M4054			88%	96%												93%	97%
AGR-21B-M0769	90%	90%															
AGR-21B-M0771	100%	100%															
AGR-21B-M4016										100%	100%					100%	100%
AGR-21B-M4115			100%	100%													
AGR-21B-M4405			100%	100%													
AGR-21B-M4420										100%	100%					86%	86%
AGR-22-M0773								100%	100%				100%	100%			
AGR-22-M0774								92%	92%				92%	92%			
AGR-23-M0025																	
AGR-3-M0446								67%	89%								
AGR-30-M4012					100%	100%											
AGR-31-M4994			100%	100%						83%	100%					76%	88%
AGR-40-M0903	93%	93%								100%	100%						
AGR-41-M4534			100%	100%												87%	87%
AGR-49-M0220																	
AGR-49-Y0026																	
AGR-49-Y0220																	
AGR-49-Y3781																	
AGR-49-Y4010																	
AGR-49-Y5793																	
AGR-49A-M0019	0%	0%						100%	100%								
AGR-49A-M4707			100%	100%													
AGR-49A-M5754																	
AGR-50-M0458	100%	100%						100%	100%								
AGR-50-M0722													83%	100%			
AGR-51-M4116																	
AGR-53-M3782																	
AGR-53-M3784										83%	100%					100%	100%
AGR-57-M0459								78%	78%								
AGR-57-M0772														88%	100%		
AGR-61-M0795																	
AGR-61-M4117			91%	91%						100%	100%					100%	100%
AGR-61-M4488																	
AGR-61-O1034																	
AGR-70-M0864																	
AGR-70-M5308												100%	100%				
AGR-8-M0442								83%	92%								
AGR-9-M0901	100%	100%												83%	92%		
Semester Totals	83%	84%	97%	98%	100%	100%	88%	94%	91%	100%	100%	100%	88%	98%	93%	95%	

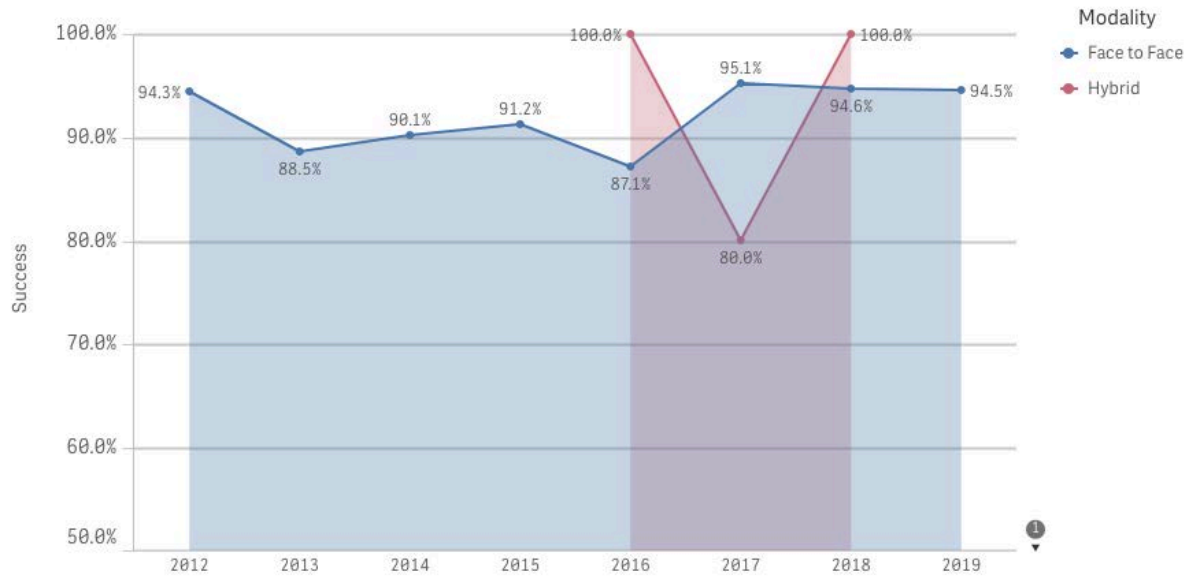
Student Success and Retention by Class (Section), Academic Year and Semester

Class (Section)	2015						2016						2017			
	SU		FA		SP		SU		FA		SP		FA		SP	
	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention
AGR-1-M0825									75%	88%						
AGR-10-M0399													92%	96%		
AGR-10-M4404					87%	96%										
AGR-11-M0022									67%	73%						
AGR-11-M3955															94%	100%
AGR-116-M4505					100%	100%					100%	100%			100%	100%
AGR-12-M3795															100%	100%
AGR-12-M4876											77%	92%				
AGR-13-M0445			91%	100%									100%	100%		
AGR-14-M4114					92%	92%										
AGR-14-M4483																
AGR-19-M0622			60%	100%												
AGR-19-M0683																
AGR-2-M4578					93%	100%									96%	100%
AGR-20-M4054											88%	100%			88%	94%
AGR-21B-M0769																
AGR-21B-M0771																
AGR-21B-M4016					100%	100%					100%	100%			100%	100%
AGR-21B-M4115																
AGR-21B-M4405																
AGR-21B-M4420					100%	100%					100%	100%			100%	100%
AGR-22-M0773			100%	100%					100%	100%			100%	100%		
AGR-22-M0774			89%	100%					100%	100%			100%	100%		
AGR-23-M0025									91%	91%						
AGR-3-M0446													86%	100%		
AGR-30-M4012																
AGR-31-M4994					100%	100%					67%	100%			100%	100%
AGR-40-M0903			91%	100%												
AGR-41-M4534											92%	100%				
AGR-49-M0220																
AGR-49-Y0026													100%	100%		
AGR-49-Y0220													100%	100%		
AGR-49-Y3781															100%	100%
AGR-49-Y4010											100%	100%			50%	50%
AGR-49-Y5793							100%	100%								
AGR-49A-M0019																
AGR-49A-M4707																
AGR-49A-M5754	0%	0%														
AGR-50-M0458													100%	100%		
AGR-50-M0722																
AGR-51-M4116																
AGR-53-M3782											79%	93%			100%	100%
AGR-53-M3784																
AGR-57-M0459													90%	90%		
AGR-57-M0772																
AGR-61-M0795									100%	100%			100%	100%		
AGR-61-M4117					100%	100%										
AGR-61-M4488																
AGR-61-O1034											100%	100%				
AGR-70-M0864													80%	80%		
AGR-70-M5308																
AGR-8-M0442			82%	100%									80%	93%		
AGR-9-M0901									80%	80%						
Semester Totals	0%	0%	85%	100%	96%	98%	100%	100%	88%	90%	90%	99%	94%	97%	93%	95%

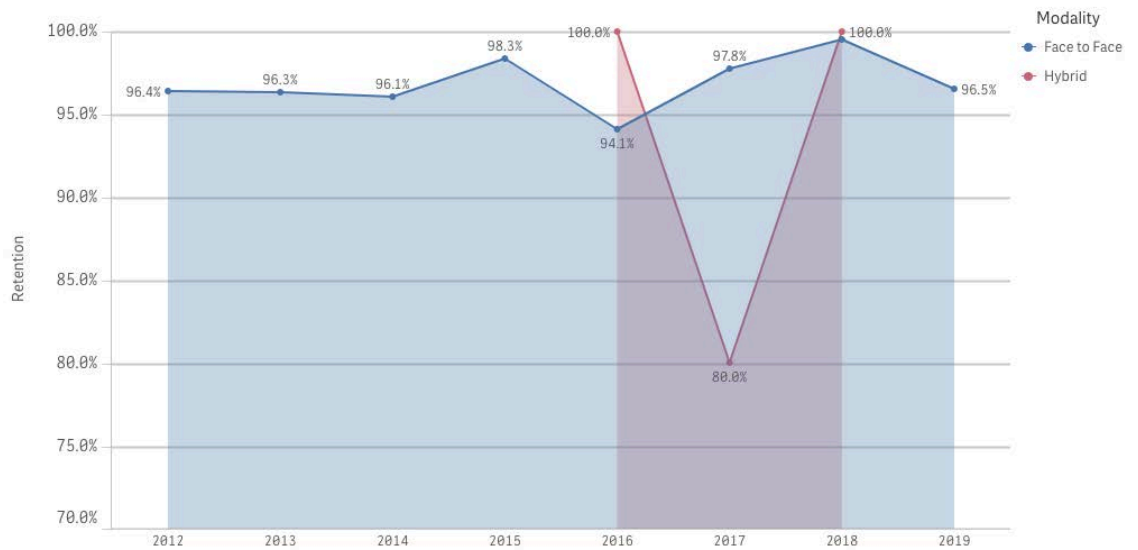
Student Success and Retention by Class (Section), Academic Year and Semester

Class (Section)	2018				2019				Section Totals, All Years			
	FA		SP		SU		FA		SP		Success	Retention
	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention		
AGR-1-M0825	94%	100%									82%	94%
AGR-10-M0399	79%	100%					96%	100%			89%	99%
AGR-10-M4404											85%	96%
AGR-11-M0022											86%	91%
AGR-11-M3955									91%	91%	93%	95%
AGR-116-M4505			100%	100%							100%	100%
AGR-12-M3795									50%	83%	75%	92%
AGR-12-M4876											77%	92%
AGR-13-M0445							100%	100%			91%	98%
AGR-14-M4114											83%	96%
AGR-14-M4483			100%	100%							100%	100%
AGR-19-M0622											60%	100%
AGR-19-M0683	86%	95%									86%	95%
AGR-2-M4578									88%	88%	93%	97%
AGR-20-M4054			100%	100%					100%	100%	93%	98%
AGR-21B-M0769											90%	90%
AGR-21B-M0771											100%	100%
AGR-21B-M4016			91%	100%					92%	92%	98%	99%
AGR-21B-M4115											100%	100%
AGR-21B-M4405											100%	100%
AGR-21B-M4420			100%	100%					88%	88%	96%	96%
AGR-22-M0773	100%	100%					100%	100%			100%	100%
AGR-22-M0774	100%	100%					92%	92%			95%	97%
AGR-23-M0025											91%	91%
AGR-3-M0446							92%	100%			82%	96%
AGR-30-M4012											100%	100%
AGR-31-M4994			83%	100%					100%	100%	89%	99%
AGR-40-M0903	100%	100%									96%	98%
AGR-41-M4534											93%	96%
AGR-49-M0220												
AGR-49-Y0026											100%	100%
AGR-49-Y0220											100%	100%
AGR-49-Y3781											100%	100%
AGR-49-Y4010			100%	100%							83%	83%
AGR-49-Y5793											100%	100%
AGR-49A-M0019											50%	50%
AGR-49A-M4707											100%	100%
AGR-49A-M5754											0%	0%
AGR-50-M0458							100%	100%			100%	100%
AGR-50-M0722											83%	100%
AGR-51-M4116									100%	100%	100%	100%
AGR-53-M3782			100%	100%							93%	98%
AGR-53-M3784											92%	100%
AGR-57-M0459	86%	100%					100%	100%			88%	92%
AGR-57-M0772											88%	100%
AGR-61-M0795											100%	100%
AGR-61-M4117											98%	98%
AGR-61-M4488			100%	100%					100%	100%	100%	100%
AGR-61-O1034											100%	100%
AGR-70-M0864											80%	80%
AGR-70-M5308					100%	100%					100%	100%
AGR-8-M0442							100%	100%			86%	96%
AGR-9-M0901	92%	100%									89%	93%
Semester Totals	92%	99%	97%	100%	100%	100%	97%	99%	90%	94%	89%	94%

Success Rates by Modality and Academic Year



Retention Rates by Modality and Academic Year



Student Success and Retention by Modality, Academic Year and Semester

Modality	2012				2013				2014							
	2012FA	2013SP	2013SU	2013FA	2014SP	2014SU	2014FA	2015SP								
Face-to-Face	95%	96%	97%	98%	100%	100%	87%	93%	91%	100%	100%	100%	88%	98%	93%	95%
Hybrid	0%	0%	100%	100%			100%	100%								
Semester Totals	83%	84%	97%	98%	100%	100%	88%	94%	91%	100%	100%	100%	88%	98%	93%	95%

Student Success and Retention by Modality, Academic Year and Semester

Modality	2015				2016				2017							
	2015SU	2015FA	2016SP	2016SU	2016FA	2017SP	2017FA	2018SP								
Face-to-Face	85%	100%	96%	98%	100%	100%	88%	90%	89%	98%	93%	96%	98%	99%		
Hybrid	0%	0%			100%	100%			100%	100%	100%	100%	75%	75%		
Semester Totals	0%	0%	85%	100%	96%	98%	100%	100%	88%	90%	90%	99%	94%	97%	93%	95%

Student Success and Retention by Modality, Academic Year and Semester

Modality	2018				2019						Modality Average, All Years	
	2018FA		2019SP		2019SU		2019FA		2020SP		Success	Retention
	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention		
Face-to-Face	92%	99%	97%	100%	100%	100%	97%	99%	90%	94%	93%	97%
Hybrid			100%	100%							77%	77%
Semester Totals	92%	99%	97%	100%	100%	100%	97%	99%	90%	94%	91%	96%

Student Success and Retention by Modality, Academic Year and Semester

Time	2012				2013						2014					
	2012FA		2013SP		2013SU		2013FA		2014SP		2014SU		2014FA		2015SP	
	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention
1:00PM							100%	100%							87%	87%
2:00PM	95%	95%	100%	100%			96%	96%					96%	96%	93%	93%
2:30PM																
4:00PM									100%	100%						
4:30PM	100%	100%					100%	100%					83%	100%		
5:00PM																
5:30PM					100%	100%	78%	78%	81%	100%			88%	100%	88%	94%
6:00PM			100%	100%							100%	100%				
6:30PM																
7:00AM																
8:00AM			88%	96%			73%	92%							93%	97%
8:30AM	100%	100%	91%	91%					100%	100%			79%	100%	100%	100%
9:00AM			100%	100%			83%	92%	98%	100%					100%	100%
9:30AM	81%	90%														
10:00AM									83%	97%						
10:30AM	93%	93%														
11:00AM	100%	100%	100%	100%			67%	89%					87%	96%		
12:00PM																
TBA	0%	0%	100%	100%			100%	100%								
Grand Total	81%	83%	97%	98%	100%	100%	87%	93%	92%	99%	100%	100%	87%	98%	94%	95%

Student Success and Retention by Modality, Academic Year and Semester

Time	2015				2016						2017					
	2015SU		2015FA		2016SP		2016SU		2016FA		2017SP		2017FA		2018SP	
	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention
1:00PM																
2:00PM			94%	100%					80%	80%	100%	100%	100%	100%	100%	100%
2:30PM			91%	100%	100%	100%										
4:00PM																
4:30PM									100%	100%			100%	100%		
5:00PM															95%	95%
5:30PM			60%	100%	92%	92%			91%	91%						
6:00PM					100%	100%					67%	100%			100%	100%
6:30PM													80%	80%		
7:00AM											79%	93%				
8:00AM			82%	100%							88%	100%	80%	93%	88%	94%
8:30AM					93%	98%			75%	88%						
9:00AM					100%	100%					100%	100%			98%	100%
9:30AM					93%	100%							92%	96%	94%	100%
10:00AM											77%	92%	86%	100%		
10:30AM																
11:00AM			91%	100%					67%	73%	92%	100%				
12:00PM													100%	100%	100%	100%
TBA	0%	0%					100%	100%			100%	100%	100%	100%	75%	75%
Grand Total	0%	0%	84%	100%	96%	98%	100%	100%	85%	89%	88%	98%	93%	96%	94%	96%

Student Success and Retention by Modality, Academic Year and Semester

Time	2018				2019						Time Averages, All Years	
	2018FA		2019SP		2019SU		2019FA		2020SP		Success	Retention
	Success	Retention	Success	Retention	Success	Retention	Success	Retention	Success	Retention		
1:00PM							100%	100%			92%	92%
2:00PM	100%	100%	95%	100%			96%	96%	90%	90%	97%	98%
2:30PM											96%	100%
4:00PM											100%	100%
4:30PM											97%	100%
5:00PM	86%	100%			100%	100%	100%	100%			95%	99%
5:30PM	86%	95%							100%	100%	86%	95%
6:00PM			92%	100%					100%	100%	94%	100%
6:30PM											80%	80%
7:00AM											79%	93%
8:00AM			100%	100%					100%	100%	88%	97%
8:30AM							96%	100%			92%	97%
9:00AM	94%	100%	100%	100%			92%	100%	88%	88%	96%	98%
9:30AM			100%	100%			100%	100%	91%	91%	93%	97%
10:00AM											82%	96%
10:30AM											93%	93%
11:00AM	89%	100%									87%	95%
12:00PM	92%	100%							50%	83%	86%	96%
TBA			100%	100%							75%	75%
Grand Total	91%	99%	98%	100%	100%	100%	97%	99%	88%	93%	88%	92%

- Analyze program effectiveness based on available quantitative data and qualitative experiences.

Retention for the program is high and has remained high. The success rates are also very high not going below 87% and averaging 92% success. This speaks to the quality of our curriculum and instruction. Our actual degree and certificate achievement rates are lower. A lot of students will come to LCC because of our unique program but are getting a transfer certificate. The Feedback I get from the university has been positive about our students. The students have been prepared to step right into upper division course work. Many students that are transferring to a university don't see the importance of a Community College Certificate. Therefore just using degrees and certificate count leaves our student history weak as there is not a sufficient tracking system. More recruitment and advertising for the available certificates and engaging the students to apply for those certificates upon completion is also needed.

This statistic does not consider the fact that a lot of students come to Lassen for the agriculture program but transfer to a university prior to completing a degree. These students typically obtain a university studies degree and take many of their lower division agriculture classes at Lassen but do not pursue an A.S. degree in agriculture, as they will soon earn a Bachelor's degree at a university. These students do not realize the benefits of earning a two-year degree or certificate in addition to their four-year degree. Often, there is little to no additional time required in order to obtain a two-year degree while pursuing the four-year degree. The faculty and counselors needs to stress the importance of an Associate's Degree in addition to a Bachelor's Degree.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Student Services Planning, and/or Institutional Effectiveness Planning tables at the end of the section for any recommendations requiring institutional action.

New degree and certificate programs are industry needed and supported. These areas of study area growing and can achieve a high living wage including the seed to sale degree, vet tech certificate, and incorporating leadership courses into existing degree and certificate options.

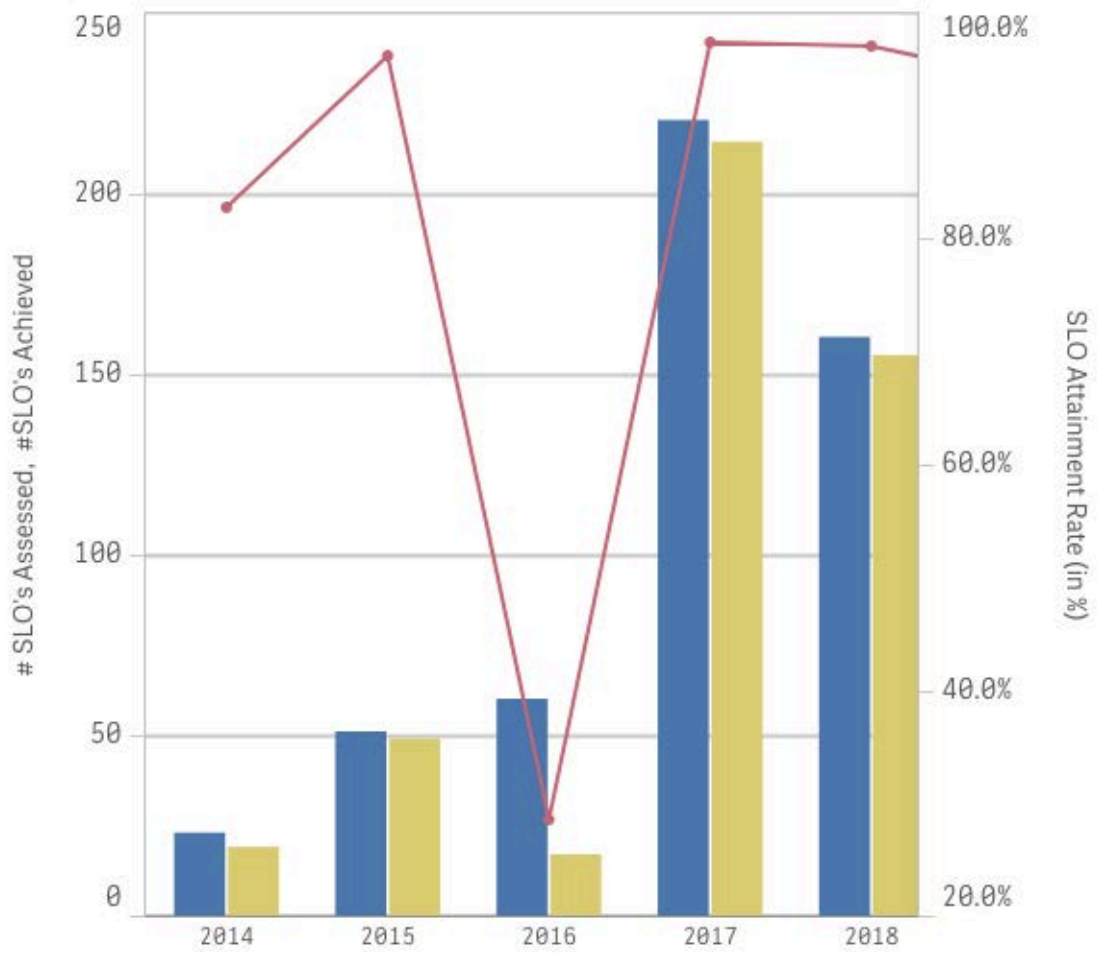
B. Student Learning Outcome Assessment

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. By contract, faculty are required to measure at least one SLO for every class taught each semester; these records are maintained in the online Data Management and Visualization tool (CLIC) and are available for review by faculty at any time through its self-updating, interactive dashboards and reports.

Description/Evaluation:

1. Attach an SLO assessment summary as provided by Office of Institutional Effectiveness.

Number of SLO's Assessed and Achieved, with SLO Attainment Rate (%)



Student Learning Outcomes (SLO's) by Course and Academic Year

Course	Academic Year	# Assessed	Achieved	% Attained
AGR-1	<i>Course Totals</i>	73	65	89%
	2014	23	19	83%
	2016	18	17	94%
	2018	32	29	91%
AGR-2	2017	44	40	91%
AGR-3	<i>Course Totals</i>	18	16	89%
	2017	5	5	100%
	2019	13	11	85%
AGR-8	<i>Course Totals</i>	32	31	97%
	2015	10	9	90%
	2017	12	12	100%
	2019	10	10	100%
AGR-9	2018	12	13	108%
AGR-10	<i>Course Totals</i>	59	55	93%
	2017	22	22	100%
	2018	14	12	86%
	2019	23	21	91%
AGR-11	2017	17	17	100%
AGR-12	2017	7	7	100%
AGR-13	<i>Course Totals</i>	61	60	98%
	2015	21	21	100%
	2017	25	25	100%
	2019	15	14	93%
AGR-14	2018	17	16	94%
AGR-19	2018	0	0	-
AGR-20	<i>Course Totals</i>	26	25	96%
	2017	16	15	94%
	2018	10	10	100%
AGR-21B	<i>Course Totals</i>	28	28	100%
	2017	14	14	100%
	2018	14	14	100%
AGR-22	<i>Course Totals</i>	51	29	57%
	2015	9	9	100%
	2016	22	0	0%
	2017	0	0	-
	2018	11	11	100%
	2019	9	9	100%
AGR-23	2016	10	0	0%
AGR-31	<i>Course Totals</i>	18	18	100%
	2017	10	10	100%
	2018	8	8	100%
AGR-40	<i>Course Totals</i>	22	21	95%
	2015	11	10	91%
	2018	11	11	100%
AGR-49	<i>Course Totals</i>	4	3	75%
	2017	3	2	67%
	2018	1	1	100%
AGR-50	<i>Course Totals</i>	3	3	100%
	2017	0	0	-
	2019	3	3	100%
AGR-53	<i>Course Totals</i>	13	13	100%
	2017	8	8	100%
	2018	5	5	100%
AGR-57	<i>Course Totals</i>	22	22	100%
	2017	8	8	100%
	2018	7	7	100%
	2019	7	7	100%
AGR-61	<i>Course Totals</i>	49	39	80%
	2016	10	0	0%
	2017	21	21	100%
	2018	18	18	100%
AGR-70	<i>Course Totals</i>	8	8	100%
	2017	8	8	100%
	2019	0	0	-
AGR-116	<i>Course Totals</i>	0	0	-
	2017	0	0	-
	2018	0	0	-

Student Learning Outcomes (SLO's) by Modality

Modality	Measure	Academic Year						Modality Average	Modality Totals
		2019	2018	2017	2016	2015	2014		
Face-to-Face	% Attained	93.8%	96.9%	97.7%	28.3%	96.1%	82.6%	82.6%	
	Assessed	80	159	217	60	51	23		590
	Achieved	75	154	212	17	49	19		526
Hybrid	% Attained	-	100.0%	66.7%	-	-	-	83.3%	
	Assessed	-	1	3	-	-	-		4
	Achieved	-	1	2	-	-	-		3

Student Learning Outcomes (SLO's) - All Modalities

All Modalities	Measure	Academic Year						Modality Average	Modality Totals
		2019	2018	2017	2016	2015	2014		
	% Attained	93.8%	98.4%	82.2%	28.3%	96.1%	82.6%	80.2%	
	Assessed	80	160	220	60	51	23		594
	Achieved	75	155	214	17	49	19		529

- 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. Consider how SLO results may be leveraged to support equipment, facility, staffing, or other budget and planning need and include the justification in your analysis.

Overall, student learning outcomes are very high showing students are meeting the SLO. These numbers could be retained by increasing our classroom size with laboratory facilities and upgrading the current classroom. Staffing is needed to maintain the success of the program.

Planning Agenda:

List recommendations and actions necessitated by the above evaluation of SLO results. Complete Academic Planning, Student Services Planning, and/or Institutional Effectiveness Planning tables at the end of the section for any recommendations requiring institutional action. For any items needing Human Resources Planning, Institutional Technology Planning, or Facilities Planning action, please make sure to include the information within the appropriate section and table later in the program review document.

Approval of proposed certificate and degree programs will only enhance the SLO results. Additional laboratory classroom space will maintain the high SLO results as well.

C. Student Evaluation Summary

The student survey portion of the evaluation procedure is designed to solicit comments concerning the program only, and is not an evaluation of instructors (See Attachment B, Student Survey).

An anonymous questionnaire is considered to be the most effective format. This will encourage the students to be frank in their responses. The student evaluation will be scheduled and administered by the Office of Instruction during October/November and February/March of each instructional review process. The Office of Instruction staff will consult with the members of the self-evaluation group to determine the student sampling and consider any program-specific revisions to the student survey. The sampling will consist of a minimum of three core courses and other courses as selected by the self-evaluation team. (Example: The basic skills program might wish to survey courses with high enrollment of former basic skills students.)

Description/Evaluation:

Attach Student Evaluation Summary provided by Office of Academic Services and provide an analysis of the results of the student evaluations

Over 50% of the students enrolled in the program have a goal to transfer to a 4-year institution and 79% of students desire to achieve an AA/AS degree. The responses were not great with the survey however, it was surprising to see that not many students were interested in receiving a certificate. The survey was offered just before one of our COVID shutdowns and only one class provided substantial responses. In the future, for classes that are face to face, an opportunity to complete the survey would help increase responses. The students should also have the ability to fill out the survey even if they are enrolled in multiple courses. For example, a student might find that the equipment in the Farm Power class are less adequate than the Bovine Reproduction class. Targeted advertising for the available certificates could help increase enrollment and interest in achieving the certificates.

The students found that overall the catalog is accurate in describing the courses and the order the courses should be taken in the program. Most students felt the schedule of classes met their time needs. Overall the students are satisfied with the equipment and facilities.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Student Services Planning, and/or Institutional Effectiveness Planning tables at the end of the section for any recommendations requiring institutional action.

I wish we had a student tracking system, not just the data showing what student got agricultural degrees and certificates. I think this is a very poor way to analyze the agriculture department for student outcomes. A lot of students will come to LCC because of our unique program but are getting a transfer certificate. The feedback I get from the university has been positive about our students. The students have been prepared to step right into upper division course work. Many students that are transferring to a university don't see the importance of a Community College Certificate. Therefore just using degrees and certificate count leaves our student history weak as there is not a sufficient tracking system.

The agriculture department needs to track students more effectively in order to earn credit for the students who attend Lassen College primarily because of the agriculture program. Most of the students who enter the agriculture program transfer to a university. According to the college data only 18 students have earned degrees in the period from 2012-2015. This statistic does not consider the fact that a lot of students come to Lassen for the agriculture program but transfer to a university prior to completing a degree. These students typically obtain a university studies degree and take many of their lower division agriculture classes at Lassen but do not pursue an A.S. degree in agriculture, as they will soon earn a Bachelor's degree at a university. These students do not realize the benefits of earning a two-year degree or certificate in addition to their four-year degree. Often, there is little to no additional time required in order to obtain a two-year degree while pursuing the four-year degree. The faculty and counselors needs to stress the importance of an Associate's Degree in addition to a Bachelor's Degree.

According to the USDA.gov web site employment is increasing. According to their statistics 54,400 jobs will be available and only 29,300 graduates in agriculture. That leaves a 45% shortage that will come from other fields. The bureau of labor statistics expects the biggest growth to be in the field of veterinary technology. This field is expected the biggest growth over the next eight years.

III. Curriculum

A. Degrees and/or Certificates

Description/Evaluation:

- List degree and/or certificates offered in the program and attach the approved course of study or two-year plan for each degree and certificate (see Attachment G, Degrees/Certificates by Program). Degree and certificate student learning outcomes, if different from program student learning outcomes, should be included in this section.
- Faculty should analyze progress made on the assessment of program (degree/certificate) learning outcomes
- Evaluate the need for courses, degrees and/or certificates

- Transfer programs: Evaluate the core courses against the major preparation requirements for an entering junior at receiving four-year institutions (e.g. CSU System and UC System).
- Transfer programs: Evaluate the courses against the specific area requirements needed to satisfy the general education requirements for associate degrees and transfer. Consider whether there are adequate opportunities to meet the area requirements in combination with all disciplines within each general education area. Is there an adequate number of course and discipline options within each area, and can those courses be offered in a manner that maximizes student enrollment in each section? Do courses need to be added or deleted from any general education area?
- Career/Technical programs: Attach dates of Advisory Committee meetings (a minimum of two meeting per year). Reference Committee Member Rosters and Minutes located in the Office of Academic Services. Summarize the advisory committee recommendations for program curriculum enhancement or improved student competencies
- Career/Technical programs: Use advisory committee recommendations, labor market or other standards to answer the following question: **Do the core courses in the certificates and degrees meet current employer skill requirements for the field?**
- Special Programs: By nature, special programs themselves do not lead to a degree or certificate. However, special programs may have coursework that is included in transfer or vocational degrees or certificates. Note the relationship between special program courses and LCC transfer or vocational degrees or certificates.

Associate in Arts Degree University Studies: Emphasis in Agriculture Science

Total Units for the Associate in Arts Degree: 60 Units Required Core Courses: 18 Units

Select 18 units from the following:

Course No

Course No		Units
AGR 1	Agricultural Accounting	3.0
AGR 2	Agricultural Economics	3.0
AGR 10	Introduction to Animal Science	3.0
AGR 13	Feeds and Feeding	3.0
AGR 20	Introduction to Plant Science	4.0

Associate in Science Degree: Agriculture Business for Transfer

Total units for the Associate in Science Degree with a minimum grade point average of 2.0: 60 units

Total Core Units: 21-24 Units

Required Core Units: 12-14

Course No	Course Title	Units
AGR 19	Soil Science OR	3.0
CHEM 1A	General Chemistry I	5.0
AGR 2	Agricultural Economics	3.0
MATH 40	Elementary Statistics	3.0
ECON 10	Macro-Economics	3.0

Required Electives: 9-10 Units

AGR 1	Agricultural Accounting	3.0
AGR 3	Intro to Agricultural Business	3.0

AGR 10	Intro to Animal Science OR	3.0
AGR 20	Intro to Plant Science	4.0

Completion of either the CSU General Education or IGETC Option

Remaining Units to total 60 Units may be selected from courses numbered 1-49

Associate in Science Degree: Agriculture Animal Science for Transfer

Total units for the Associate in Science Degree with a minimum grade point average of 2.0: 60 units

Total Core Units: 20 Units

Required Core Units: 14

Course No	Course Title	Units
AGR 2	Agricultural Economics OR	3.0
ECON 11	Micro-Economics	3.0
AGR 10	Intro to Animal Science	3.0
CHEM 1A	General Chemistry I	5.0
MATH 40	Elementary Statistics	3.0

Required Electives: 6 Units one course from each area:

Area 1: Animal Production

AGR 11	Beef Cattle Production	3.0
AGR 14	Equine Science	3.0

Area 2: Animal Health

AGR 12	Animal Health and Sanitation	3.0
AGR 13	Feeds and Feeding	3.0

Completion of either the CSU General Education or IGETC option

Remaining Units to total 60 Units may be selected from courses numbered 1-49

Associate in Science Degree: Agriculture Science and Technology

Total Units for the Associate in Science Degree: 60 units

Required Core Courses: 31 Units

Course No	Course Title	Units
AGR 1	Agricultural Accounting OR	3.0
BUS 13	Basic Accounting	3.0
AGR 2	Agricultural Economics	3.0
AGR 9	Food Animal Selection	3.0
AGR 10	Introduction to Animal Science	3.0
AGR 11	Beef Cattle Production	3.0
AGR 13	Feeds and Feeding	3.0
AGR 14	Equine Science	3.0
AGR 19	Introduction to Soil Science	3.0
AGR 20	Introduction to Plant Science	4.0

Certificate of Achievement: Agriculture Science and Technology

Total Units for the Certificate of Achievement Agriculture Science and Technology: 34 Units

Required Core Courses: 31 Units

Course No	Course Title	Units
AGR 1	Agricultural Accounting OR	3.0
BUS 13	Basic Accounting	3.0
AGR 2	Agricultural Economics	3.0
AGR 9	Food Animal Selection	3.0
AGR 10	Introduction to Animal Science	3.0
AGR 11	Beef Cattle Production	3.0

AGR 13	Feeds and Feeding	3.0
AGR 14	Equine Science	3.0
AGR 19	Introduction to Soil Science	3.0
AGR 20	Introduction to Plant Science	4.0

Certificate of Accomplishment: Agriculture Business

Total Units for the Certificate of Accomplishment–Agriculture Business: 11 Units

Required Core Courses: 11 Units

Course No	Course Title	Units
AGR 1	Agricultural Accounting	3.0
AGR 2	Agricultural Economics	3.0

Certificate of Accomplishment: Animal Science

Total Units for the Certificate of Accomplishment:

Animal Science: 15 Units

Course No	Course Title	Units
AGR 8	Introduction to Animal Production	3.0
AGR 10	Introduction to Animal Science	3.0
AGR 11	Beef Cattle Production	3.0

Certificate of Accomplishment: Horsemanship

Total Units for the Certificate of Accomplishment:

Horsemanship: 14 Units

Course No	Course Title	Units
AGR 14	Equine Science	3.0
AGR 23	Western Riding and Training	2.0
AGR 50	Basic Riding	2.0

Certificate of Accomplishment: Agriculture Irrigation

Total Units for the Certificate of Accomplishment–Agriculture Irrigation: 11 Units

Required Core Courses

Course No	Course Title	Units
AGR 19	Introduction to Soil Science	3.0
AGR 20	Introduction to Plant Science	4.0
AGR 42	Farm Surveying, Irrigation and Drainage	3.0
AGR 49	Agriculture Work Experience	1.0

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 42 - Farm Surveying, Irrigation and Drainage

3.0 units

CSU

17 hour lecture/102 hours lab

Student will be involved in irrigation and drainage problems concerning pumps, motors, sprinkler systems, pipe lines, ditches, and wells. The use of survey or leveling equipment will be applicable to this course as fields are prepared for irrigation systems.

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 50 - Basic Riding

2.0 units

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

17 hour lecture/51 hours lab

A course designed to introduce horse care and basic western riding skills. This course covers not only the ability to ride, but an understanding of equipment, conformation, breeds, care and feeding.

AGR 51 - Horsemanship

2.0 units

17 hour lecture/51 hours lab

Intermediate Level: Utilizing natural horsemanship techniques to build confidence and communication between horse and rider. Special instruction in problem solving and preparing the horse and rider for trail horse obstacles, reining and cattle handling.

AGR 53 - Colt Training

2.0 units

Recommended Preparation: ENGL105 or equivalent multiple measures placement.

17 hour lecture/51 hours lab

This course is designed to present beginning methods of colt training to include catching, creating trust, driving, first ride, first 30 days and loading.

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.

AGR 116 - Pesticide Update

“Continuing Education Requirements”

0.5 units

10 hours lecture (1 week) (R)

A course designed to update licensed pesticide personnel on changes in the pesticide industry, laws and regulations, and safety. Repeatable as necessary to maintain certification.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation.

Complete Academic Planning table at the end of the section for any recommendations requiring institutional action.

The current courses and proposed degree and certificate programs have all been reviewed by the industry advisory team and have been approved. The courses support industry need and skill requirement.

B. Courses

Description/Evaluation

1. Identify courses added or deleted from the instructional program since the last instructional program review.

Added- AGR 4-Agriculture Sales and Communication, AGR 12-Animal Health and Disease, AGR 19-Introduction to Soil Science, AGR 42- Irrigations Systems

2. Each course offered within the instructional program must be reviewed for accuracy and currency (see Attachment I, Course List by Program). Review of each course outline should include asking the following questions:
 - Should the Disciplines of Assignment remain the same or be changed?
 - Should the Catalog/Schedule description remain the same or be updated?
 - Is the course repeatable? Is the repeatability reflected in the SLOs, Objectives, and Course Content sections? What is the basis for repeatability: legal requirement or increased skill level?

- If the course meets a core requirement within specific degrees or certificates, is it accurately noted on the outline?
 - If the course satisfies a specific area within the general education requirement for an associate degree or transfer, is it accurately noted on the outline?
 - Are course-level student learning outcomes included on each course outline? Are learning outcomes included for each allowable repetition?
 - Does the course require a prerequisite or have recommended preparation? Are content review forms on file for each recommended preparation and/or prerequisite?
 - Do any of the learning outcomes or objectives need revision?
 - Does any content need to be updated?
 - Are any changes necessary in the Methods of Instruction, Assignments, Critical Thinking or Methods of Evaluation sections?
 - Is the course being considered for distance education offering? If so, has it been approved for specific distance education delivery?
 - Is the textbook current and is the publication date included?
3. 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. When 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.” Revision forms will be retained in the Instructional Office with the Curriculum agenda packets.
 4. 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.
 5. The signed Instructional Program Curriculum Review Form is to be included with your completed program review documents

Course outline updates have been turned in for all active courses since the last review and the questions above were considered.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation.

Complete Academic Planning table for any recommendations requiring institutional action.

New degree program and certificate program need to be developed and approved.

Curriculum for the new leadership courses and vet tech certificate needs to be developed.

C. Articulation/Integration of Curriculum

Description/Evaluation:

1. 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)

Agriculture					
Articulation as of 8/11/16					
Lassen Course	C-ID	Cal Poly SLO	CSU Chico	CSU Fresno	Humboldt State
Agr 1			ABUS 261		
Agr 2		AGB 101	101		AGRESEC 1
Agr 3	AG-AB 104		ABUS 101		
Agr 8					AN SCI 1
Agr 9		ASCI 226		ASCI 81	AN SCI 21
Agr 10			ANSC 101		AN SCI 41, 41L
Agr 11			ANSC 271	ASCI 21	
Agr 13		ASCI 220	230	ASCI 35	
Agr 14				ASCI 51	AN SCI 15
Agr 19	AG-PS 128L				SOIL 260
Agr 20	AG-PS 106L		PSSC 101		
Agr 40		BRAE 121	AGET 120		
Agr 41		BRAE 141	150	MEAG 3	

Note: CSU Fresno articulation is not current, it is from 2002-04

Agriculture								
Articulation as of 9/25/20								
Lassen Course	C-ID	CSU GE	Cal Poly Pomona	Cal Poly SLO	CSU Chico	CSU Fresno	Humboldt State	UC Davis
Agr 1			ABM 2240		ABUS 261	31		
Agr 2	AG-AB 124	Area D2		AGB 101	ABUS 101	AGBS 1		AGRESEC 1

Agr 3	AG-AB 104			ABUS 101	AGBS 5		
Agr 4							
Agr 8							AN SCI 1
Agr 9				ASCI 226		ASCI 81	AN SCI 21
Agr 10	AG-AS 104	Area B2&B3	AVS 1112 & 1114L		ANSC 101	ASCI 1	AN SCI 41 & 41L
Agr 11				ASCI 221	ANSC 271	ASCI 21	
Agr 12						ASCI 65	
Agr 13	AG-AS 132L			ASCI 220	ANSC 230	ASCI 35	
Agr 14	AG-AS 116L			ASCI 224		ASCI 51	AN SCI 15
Agr 19	AG-PS 128L	Area B1&B3					SOIL 260
Agr 20	AG-PS 106L	Area B2&B3		AEPS 120	PSSC 101		
Agr 31							
Agr 40				BRAE 121	AGET 120		
Agr 41				BRAE 141	AGET 150		

Humboldt: Looks like they eliminated their AGR and Animal Science degrees, hardly any articulation now compared to 2016

2. Provide a narrative reviewing the Lassen Community College courses and courses at four-year institutions for course alignment. (i.e. two courses at Lassen needed to articulate with one course at UC).and the units requirements for Lassen Community College courses as compared to four-year institutions.

Ag 31 is the embryo transfer course however, Lassen is the only college offering this type of class. Ag 4 has not yet been taught and possibly no up to date as far as articulation. There are some courses that are articulated to some colleges and not others. More research will be conducted to find out why that is.

Planning Agenda:

Complete Student Services Planning table (see below) for any proposed changes to articulation or C-ID designation

There are no changes at this time.

III. Scheduling and Enrollment Patterns

Description/Evaluation:

1. Describe and explain any deviation from the two-year plan in course scheduling during the last four years.

We had some deviations because the Counselors Office degree course scheduling did not match degree course scheduling but this has been addressed and corrected. There should be no deviation in the scheduling.

2. Evaluate the relationship between schedule, enrollment patterns and FTE generated statistics.

We have evaluated the relationship with the schedule and have chosen the most successful schedule. We will continue to correlate with the counseling office to determine the most successful scheduling patterns.

3. Using FTE data provided, evaluate how the scheduling of courses within the program has served the needs of a variety of students (e.g. day, evening, single parents, employed full-time). Include the following considerations:
 - a. Number of sections (too many/too few to serve student needs)
 - b. Variety of times (three times a week, twice a week, one day a week and morning/afternoon/evening)
 - c. Length of courses (traditional semester/short term)
 - d. Method of delivery (traditional/technology-mediated/correspondence delivered instruction).

Scheduling has always been a struggle but we are moving into other modalities that will hopefully show an increase of enrollment after time. Scheduling around sports schedules and other courses has been attempted to meet the needs of the students.

4. Evaluate student access to general education courses within the context of the scheduling of the instructional program courses.

We have evaluated the courses and have attempted to schedule around the general education courses.

Planning Agenda:

Complete Academic Planning table (see below) for any proposed changes in the schedule that might improve enrollment patterns and better meet student needs.

There are no proposed changes to the scheduling.

IV. Equipment

Description/Evaluation:

1. List capital outlay equipment, age of equipment and replacement schedule

Trucks	License Number	Life expectancy
2000 ford diesel	e1030686	4 years
2000 ford ranger	_____	1 year
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
Two horse trailer	No Plates Brown Mile	not usable
Ford Tractor	Carl Moyer	not usable
John Deere Tractor 90 horse		5 years
John Deere Tractor 70 horse		10 years

Miscellaneous equipment for the agriculture department

√ 2 computers with printers	need to be replaced
√ Miller Welder	needs to be replaced old
√ Cutting torch and tanks	5 years
√ Grinder	
√ Tool Chest	
√ Hi-Qual Squeeze chute	10 years

√	Hi-qual Sweep and Crowd alley	10 years
√	True test Scale	5 years
√	Ultra sound	old 1 year
√	Semen tank	10 years
√	8 Compound Microscopes	2 years
√	6 dissecting microscopes	2 years
√	6 horse-shoeing forges	5 years
√	Incubator	5 years
√	Embryo Freezer	old needs update
√	2 cattle blowers	5 years
√	2 fitting stations	5 years
√	8 fence line feeders	15 years
√	Show box	10 years
√	Brush mower for tractor	10 years
√	Welding trailer	old needs to be replaced
√	Repro simulator	10 years
√	Two sets of aluminum bleachers	10 years

Identify any existing equipment maintenance/service agreements

There are no existing equipment maintenance or service agreements.

2. Evaluate the condition of capital outlay equipment in light of the replacement schedule and available funds.

The welder, instructor laptop, classroom printer are all in need of immediate replacement. Funds are need for maintenance of both of the flatbed trailers or purchase of a new ones for the agricultural department. The embryo freezer and ultrasound machine are very dated and should be replaced in the near future to keep up with industry advancements. The welder is used in the mechanized agriculture class is need of replacement.

3. Evaluate the effectiveness of and need for additional maintenance/service agreements.

N/A

4. Justify any proposed modification or additions to equipment available for students and/or faculty/instructional assistants within the program.

The equipment that needs maintenance is essential for required classes. The updated ultrasound machine and embryo freezer are not current technology and should be updated so students are experiencing the most up to date technology in class.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Student Services Planning, Facilities Planning, or Technology Planning tables as appropriate for any recommendations requiring institutional action.

The welder, instructor laptop, classroom printer are all in need of immediate replacement. Funds are need for maintenance of both of the flatbed trailers or purchase of a new ones for the agricultural department. The embryo freezer and ultrasound machine are very dated and should be replaced in the near future to keep up with industry advancements. The welder is used in the mechanized agriculture class is need of replacement.

V: Outside Compliance Issues (if appropriate for program)

Description:

If appropriate, describe the role of outside compliance issues on the Special Program.

There are no outside compliance issues on this program.

Evaluation:

Assess changes in compliance or identification of compliance-related needs and the impact on the Special Program.

N/A

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Facilities Planning, Technology Planning and Human Resource Planning Forms as appropriate for any recommendations requiring institutional action.

N/A

VI. Prioritized Recommendations

A. Prioritized Recommendations for Implementation by Program Staff

List all recommendations made in Section One that do not require institutional action (i.e. curriculum development) in order of program priority.

Curriculum development needed for Vet Tech Certificate and leadership courses.

B. Prioritized Recommendations for Inclusion in the Planning Process

List all recommendations made in Section One that should be included in Lassen College's planning and budgeting process, specifically in the Educational Master Plan, Student Services Master Plan, or Institutional Effectiveness Master Plan. Separate recommendations into the appropriate plan(s). Items to be included in the Human Resource Master Plan, Institutional Technology Master Plan, or Facilities Master Plan should be addressed in Sections Two, Three or Four in lieu of or in addition to inclusion in the Academic Master Plan. See Attachment C, Master Plan Overview, in the IPR handbook to determine where recommendations are best placed.

Prioritized Recommendations for Inclusion in Education Master Plan: The EMP addresses the instructional planning needs of the college.

Agriculture, 2020

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost (implementation & ongoing)	Expected Outcome
2	Develop Vet Tech Certificate	Fall 2021	\$15,000	Grant funded. Tracked certificate earners, workforce ready certificate option for students. Increased enrollment
2	Seed to Sale Degree Approval	Spring 2021	None	Industry desired degree program. Increased enrollment.
3	Increased marketing and recruitment	Immediately		Increased enrollment
3, 4	Develop two student clubs including a livestock judging team and a livestock showing team.	Immediately	\$10,000	Grant funded. Increased enrollment, student success, and recruitment peer to peer.
3, 4	Existing Classroom improvements including new carpet, fixing holes in walls, new tables and chairs for students, baseboards.	Immediately	\$25,000	Student safety improved.
2,3,4	New laboratory classroom needed in existing barn. Agricultural courses are extremely science based and are in need of laboratory classroom space. This will also make it possible to teach the new vet tech certificate.	Immediately	\$30,000	Student success
2,3,4	Agriculture leadership course offerings and ag ambassador student club	Spring 2021	\$15,000	Student success and increased enrollment. Could be partially or fully grant funded. Student success and increased enrollment.
3	Safety perimeter fencing around livestock area	Immediately	\$50,000	Safety of entire campus and animals on campus.
2,3,4	Supplies and teaching material for vet tech certificate	Fall 2021	\$25,000	Student success and increased enrollment

Prioritized Recommendation for Inclusion in Student Services Master Plan: The SSMP highlights the services needed to maximize the student experience through a variety of key student support services.

Agriculture, 2020

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost (implementation & ongoing)	Expected Outcome
2, 3, 4	New welder for Ag Mech Class	Spring 2021	\$3500	Student success
3	Maintenance for Flat Bed Trailers	Fall 2021	\$3500	Student success
3, 4	Embryo Freezer	Fall 2021	\$8500	Student Success
3, 4	Ultrasound Machine	Fall 2021	\$25,000	Student Success

Prioritized Recommendations for Inclusion in Institutional Effectiveness Master Plan: The IEMP addresses college needs not addressed in other plans. These needs include research, governance, outcome assessment, and administrative operations.

Agriculture, 2020

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost (implementation & ongoing)	Expected Outcome

Section Two: Human Resource Planning

I. Program Staffing

Description/Evaluation:

1. List the current staffing for the program include: full-time and part-time faculty positions, instructional assistants and classified staff
 - 1- Full-time faculty
 - 5- part-time faculty
 - 1- ISS part time
2. This section provides an opportunity for analysis and justification of projected staffing needs to support the program. Clerical support by the Office of Academic Services and work-study needs may be included.

The Agriculture department is handling classes with the current instructors. There is one full time faculty member and numerous part time faculty members currently employed by the college for the agriculture department. The program has room to expand but can't with the current staff.

One part time ISS position is not enough to keep the facility in a respectable order and assist with lab courses offered. Student workers and faculty have tried to pick up the extra. This has been very taxing on those positions. Agriculture ISS is a seven day a week job, one support position only covers 5 days. Two days a week are completely covered by faculty and students. This creates a challenge in the facility area. It is impossible for one half time person to manage our facilities and keep up with maintenance. This is a critical area as it is a hub for most of the students and a first contact point for new and prospective students. It needs to be a priority to increase the personnel in the area of agriculture support staff. At this point the program is planning for expansion; a full time faculty replacement position is a must. 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.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning and Human Resources Planning Forms as appropriate for any recommendations requiring institutional action.

This department must start on an upward movement. Currently the faculty and staff are insufficient for the program to grow in the future. The addition of a woman's rodeo coach has proven to increase the number of females in rodeo. This increase should continue and hopefully will carry over into the men's team as we have now added a dedicated men's rodeo coach. Additionally, agriculture requires animals to be on campus. This requires feeding and watering 7 days a week. This is not sufficiently covered by the current staffing. This must be addressed to provide adequate care for the animals needed by the department and rodeo teams.

II. Professional Development

Description/Evaluation:

1. If available, reference Flex Contracts for full-time faculty teaching in the program for each of the last two years. [Copies may be available in the Office of Instruction].

The faculty in the agriculture area are very active in their profession. This allows them to be current in the agriculture industry. There are many trainings and activities done for the youth in the county. Along with this a current membership is being kept in the California Agriculture Teachers Associations (CATA). The faculty has been attending professional development at the yearend state conference; this is a yearly meeting that focusses on changes in the industry that will drive curriculum changes.

2. Describe the professional development and professional activities of the program faculty/instructional assistants in addition to flex obligation relevant to program improvement that has occurred during the period under review. (Workshops, conferences, staff development, sabbatical leaves, work experience, etc.)

Additional professional development is needed in online instruction and various technology.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning and Human Resources Planning Forms as appropriate for any recommendations requiring institutional action.

[Provide instructors more online instruction professional development opportunities.](#)

III. Student Outcomes

Description/Evaluation:

Description/ Evaluation:

Describe any results from assessment of learning outcomes that affect human resource planning

To maintain the positive student learning outcomes achieved, additional maintenance staff in the agricultural area is needed.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning and Human Resources Planning Forms as appropriate for any recommendations requiring institutional action.

Additional maintenance staff would assist in caring for the livestock needed for the instruction of several agricultural courses. This livestock is essential for student learning and we therefore have an obligation to care for them. Presenting quality grounds and learning environments will only continue to raise and support the positive numbers in the agricultural department.

IV. Prioritized Recommendation

Prioritized Recommendations for Implementation by Program Staff

List all recommendations made in Section Two that do not require institutional action (i.e. curriculum development) in order of program priority.

1. Approve Seed to Sale degree program
2. Develop curriculum for Vet Tech Certificate
3. Develop leadership curriculum and courses to offer

Prioritized Recommendations for Inclusion in the Planning Process

List all recommendations made in Section Two that should be included in Lassen College's planning and budgeting process. See Attachment C, Master Plan Overview, in the IPR handbook to determine where recommendations are best placed.

Prioritized Recommendations for Inclusion in Human Recourse Master Plan: The HRMP identifies and manages the administrative functions of recruitment, selection, evaluation, and professional development needs of the College to ensure a fully-staffed and highly functioning team of employees.

Agriculture 2020

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost (implementation & ongoing)	Expected Outcome
----------------	----------------------	---------------------------	---	------------------

2, 3, 4	Additional Maintenance Staff for Agricultural department	Immediately	\$30,000	Student success, student safety

Section Three: Facilities Planning

I. Facilities

Description/Evaluation:

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

Currently the agricultural classroom has areas that are carpeted and then areas that are not carpeted which presents a tripping hazard for students. The classroom also has large open holes in the walls that allows cold outside air to come in. Our classroom does not represent the agricultural department nor LCC well. There are mismatched tables and chairs for students and some of those are broken and barely functional. 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.

2. Describe and evaluate additional facilities utilized off-campus by the program (attach any relevant rental agreements)

We have no off campus areas utilized by the program.

3. Describe any facilities needs identified by assessments of student learning outcomes

The current classroom is in desperate need of repairs to create a proper classroom and learning environment. The flooring needs to be changed to eliminate tripping hazards, new tables and chairs are needed for students, and the walls need to be repaired so they don't have holes leading directly outside. We are also in need of a laboratory area for current courses as well as future vet tech classes.

4. Justify any proposed modifications or additions to existing facilities that would better serve the program planned for the next five years.

Currently the issues in the agriculture classroom prevent a safety hazard to the students and the instructors. A new laboratory classroom area would greatly enhance the student success and ability to expand the lab portion of the current and future classes.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Facilities Planning, and Technology Planning Forms as appropriate for any recommendations requiring institutional action.

Upgrades to classroom and new lab area.

II. Prioritized Recommendations

Prioritized Recommendations for Implementation by Program Staff

List all recommendations made in Section Three that do not require institutional action (i.e. curriculum development) in order of program priority.

N/A

Prioritized Recommendations for Inclusion in the Planning Process

List all recommendations made in Section Three that should be included in Lassen College’s planning and budgeting process. See Attachment C, Master Plan Overview, in the IPR handbook to determine where recommendations are best placed.

Classroom updates and classroom furniture.

Prioritized Recommendations for Inclusion in the Facilities Master Plan: The FMP addresses the physical infrastructure, facility, and maintenance needs of the campus.

Agriculture 2020

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost (implementation & ongoing)	Expected Outcome
3, 4	Classroom updates	Spring 2021	\$30,000	Student safety. Could be grant funded
3, 4	Classroom furniture	Spring 2021	\$20,000	Grant funded. Student safety improved
3, 4	New lab classroom	Fall 2021	\$50,000	Student success and increased enrollment.

Section Four: Technology Planning

I. Technology

Description/Evaluation:

1. Describe and evaluate technology and technology support provided for instruction and instructional support.

The current lap top and printer that is available for use are outdated and not functioning well. There is not a printer located in the building that is accessible for the agriculture classroom to use. Printing classroom material or instructor material is extremely cumbersome with the remoteness of the classroom. The laptop is also aging and is not functioning well especially with the high demands of online instruction now.

2. Describe any technology and technology support needs identified by assessment of student learning outcomes.

A new laptop and printer for the agriculture classroom is needed.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation.

Complete Academic Planning, Facilities Planning, Technology Planning and Human Resource Planning Forms as appropriate for any recommendations requiring institutional action.

A new laptop and printer for the agriculture classroom is needed.

II. Prioritized Recommendations

Prioritized Recommendations for Implementation by Program Staff

List all recommendations made in Section Four that do not require institutional action (i.e. curriculum development) in order of program priority.

A new laptop and printer for the agriculture classroom is needed.

Prioritized Recommendation for Inclusion in the Planning Process

List all recommendations made in Section Four that should be included in Lassen College’s planning and budgeting process. See Attachment C, Master Plan Overview, in the IPR handbook to determine where recommendations are best placed.

A new laptop and printer for the agriculture classroom is needed.

Prioritized Recommendations Inclusion in Institutional Technology Master Plan: The ITMP addresses the technology needs of the campus.

Agriculture 2020

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost (implementation & ongoing)	Expected Outcome
3	Laptop for Ag instructor	Immediately	\$500	Increased efficiency for instructor and better online class delivery
3	Printer for Ag Classroom	Immediately	\$500	Increased efficiency for instructor

Agriculture Advisory Team Meeting

December 9, 2015

Member present

David Lyle

Joe Egan

Jack Hanson

Sandy Fortin

Mike Bartley

Holly Egan

Craig Hemphill

Allison Somerville

Wyatt Hanson

Dr. Terri Armstrong

Jesse Reifer

Brian Wolf

Meeting called to order at 5:35 by Brian Wolf. Agenda was passed out and the meeting started with introductions of all participants.

College Overview – Dr. Armstrong

Reported on the following programs:

- **Fire Science**
- **Nursing**
- **Auto**
- **Welding**
- **Sports**

The inmate education pilot project at High Desert state Prison was also explained. She went on to explain about how correspondence would be cut out and all classes would be face to face. Dr. Armstrong also talked about the new library and invited all to join at the grand opening.

Agriculture Overview – Brian Wolf

- **Talked about the program moving more towards agriculture leadership and moving the rodeo team away from ag and into athletics.**
- **Brief update on rodeo team and the coaching situation.**

- **Talked about approval of two new courses (Soil Science, Animal health and disease)**

Action Items

Curriculum:

Irrigation Courses – Passed out suggested course from hired consultant

Irrigation Certificate – passed out suggested certificates and degrees from consultant

Discussion of courses:

- **Short explanation of history for the Irrigation curriculum – Bwolf**
- **Vigorous discussions about skill levels, job placement, pay...**
- **General consensus was too many courses for our area in irrigation and not enough students.**
- **It was Suggested that a few courses be put together for an emphasis in irrigations to go along with the ag AA degree.**
- **AGR 19 Soil Science, AGR 20 Plant Science, AGR 42 Farm Survey, Irrigation and Drainage, AGR 49 Work experience for 1 unit. The discussion was that these courses had the skills needed for someone starting in irrigation. Holly, Jack, Mike, Allison, and Craig all had discussion points on these courses, explaining why each should be added and not the others**

Moved to accepted the above three courses and to be put into a certificate of accomplishment by Mike Bartley and seconded by Jack Hanson

The vote followed with a unanimous decision

Following the vote it was discussed that if we could get the ground at CCC we could quickly increase this degree to offer more classes – Joe Egan

Discussion Items:

- **Seed to Sale project**
- **A project that will take feed grown through hydroponics along with other local feeds, fed to cattle through classes on campus. All the accounting and marketing would be done by the agriculture business classes. The final product (beef) would be graded by**

students and hopefully sold to the cafeteria. The other products will be marketed through a new sales course.

- This topic was introduced –BWolf
- The following courses were suggested for a new AS degree for the seed to sale project

1. Animal Science
2. Beef Cattle Production
3. Plant Science
4. Animal Health and disease
5. Agriculture Accounting
6. Feeds and Feeding
7. Animal Selection
8. Agriculture Sales and Communication (new)

- The discussion was extremely favorable for this project
- All thought it would be a big draw for the program
- Explanation of New Mixing wagon for ration development
- Thought hydroponics would be a good selling point for water usage and sustainability
- It was also suggested that some new equipment would be needed for the program consisting of cattle transportation and handling for some examples

Moved to accept and move forward to action with more details

Holly Egan and seconded by Sandy Fortin

Vote unanimous

Donations:

It was discussed to ask ranchers for donations of one head per ranch for a startup for this seed to sale project. It was suggested that if the ranchers could get a write off for taxes, most would donate. Holly suggested a marketing letter taken to the cattlemen's meeting with the information about the write off through the school. If these donations were acquired it would give a huge boost to the program and first year profits would be high and could be used as scholarships for the following year.

Meeting adjourned at 7:15pm

Appendix B:

Appendix C:

Insert information as needed

Appendix D:

Insert information as needed

Appendix E:

Insert information as needed