School	Business, Agriculture, and Technical Studies
Program Area	Agriculture
Major Programs	A.S. Agriculture – Business Concentration (61 credits), A.S. Agroecology Concentration (63 credits), A.S. Agriculture – Animal Science Concentration (63 credits), A.S. Agriculture – Rangeland Ecology and Management Concentration (62 credits), A.A.S. Agriculture Production Technology (61-62 credits)
Review Period	Fall 2012 to Fall 2017
Self-Study Developed	AY 2017-2018
Review Status	Academic Standards Accepted the Program Review Without Contingencies
Program Leaders	Bruce Nisley, Rosemary McBride
Committee Chair	Cindy Henning
Academic Standards Program Review Subcommittee Reviewers	Nate Huseman: Faculty, Arts and Humanities Starla Mason: Faculty, Health Sciences Kim Bender: AVP – Institutional Effectiveness Erin Bauer: Chair of SLA Committee Jesse Brumfield: Student Services Representative Sabrina Lane: Administration and Finance Representative Russ Tafoya: 18-19 APR – Human Services

A. Brief Overview of Program

The Laramie County Community College Agriculture Program (LCCC Ag) is a core element of the culture and experience offered to all students who strive to become a Golden Eagle. From the Shaun Dubie Memorial Rodeo, to our BBQs, activities and events, and our career and transfer programs. All students, whether academic concentrators or not, touch some element of our programming.

The first Agriculture classes were offered at LCCC in 1973. Jack Humphrey, Bob Boyd (eponym of current building), and Ron Pulse were founding faculty who taught through the early 2000s leaving a 30+ year formidable legacy for today's programs. This year, 2017, will be the first year that there will not be a student of these 3 men serving in a faculty role in the department; however, their legacy remains through the many in Laramie County who still give back to LCCC Ag in livestock sales, clinics, and guest lectures.

In the over four-decade history of this program, agriculture has changed significantly as an industry. Originally, the program enrolled students who primarily returned to their home farm or ranch business. Though, fewer students are returning to production agriculture, there has been in increasing trend of students who are transferring to universities and pursuing bachelor degrees through the development of our articulated Associate of Science (AS) programs with the University of Wyoming (UW), as well as, other regional universities. In addition, many students also take the skills gained from the Associates of Applied Science (AAS) programs and apply them to a wide variety of employment pursuits in our western rural economies.

Agriculturists endured the prolific growth through the 1970's and suffered through the terrible financial restructuring of the 1980's. Agriculture then matured into a commercial business, is treated that way at the farm/ranch level, and is perceived as a player in the national and global markets. As a result, students are more sophisticated in their career pursuits, have become more motivated to complete advanced educational degrees, and recognize that, in order to be competitive in the job market, they must have a new set of skills, abilities, and capabilities to compete for jobs that were not even available

when LCCC Ag started. In addition to these changes within the industry, urbanization has drastically changed agriculture's position in our society. The bulk of the United States population is between two and three generations removed from production agriculture. As a result, there is a growing demand for education programs that are designed to meet the needs of students without any agricultural background.

The agriculture faculty and students moved into the present agriculture complex in the fall of 1986. The Agriculture/Equine Studies facility has undergone constant change and updating since its opening. The building itself has not changed significantly, but we have added fencing and cross fencing to over 100 acres of pastureland. The open-faced livestock facilities were added directly behind the stall barn and then east of the barn but south of the outdoor arena. Trailer and RV parking was added, individual horse stall facilities were added, and improvements have been made in the facility infrastructure to make room for increased demands on facilities for events of almost every kind. Our facilities are admired by many and well exceed most. The level of technological progress is clear in our modem teaching classrooms and labs, and we exceed our competition in not only our teaching methods but also student proficiency in the use of higher levels of technology in the field. Students transfer with a keen ability to compete at the upper divisions of learning and provide us with a constant level of feedback making sure they are properly equipped to compete in academia and the workforce.

The agriculture program has an outstanding track record in placing graduates, transferring students to almost every major university in the country, putting students to work in the industry, producing professional rodeo contestants, providing award winning livestock judging and livestock show teams, and producing campus, local, state, and national leaders in a broad cross-section of the country.

B. Program Achievements Over the Review Period

Through the hard work of a team of committed faculty and staff, the Agriculture program has seen significant growth in the past five years. A number of our accomplishments include:

Program Level Accomplishments

- Year-over-year from 2010-2017 our FTE has grown an average of 10% over prior years. In 2017, our FTE was 71.04.
- Participation in program is also high with "participants" enrolled at 376.00 and "concentrators" enrolled at 173.00. Both measures seeing 10% growth over prior years.
- Program completion rates have also been steadily improving during this seven-year period with both the number of workforce degrees as well as the number of students matriculating to university up year-over-year during this time period.
- Three new programs (Agroecology, Rangeland Ecology and Management, and Agriculture Technical Operations) have been added to expand opportunities for current students without adding additional instructional costs. These degrees tailor the current program offerings in agriculture and across campus to better meet the needs of students wanting to concentrate in a natural resource field in preparation for employment in the public sector. The Agriculture Technical Operations is a unique tailored program to equip students with welding, electrical, and diesel background in partnership with those departments on campus.
- Four Agriculture AS degrees (Animal Science, Agriculture Business, Agroecology, and Rangeland Ecology and Management) have completed articulation agreements with the University of Wyoming to better align the curriculum for a more successful transfer.

- Agricultural Economics (AGEC 1010) now serves as a cultural awareness general education course, and Agroecology (AECL 1000) is a lab science general education course that non-agriculture concentrating students from the arts and humanities areas often take, expanding the campus population's understanding of agriculture and food and fiber systems.
- Foundational support is evidenced in the 20 different scholarships available for Ag/Equine majors totaling over $30,000 in financial support.
- In 2015, students participated in International Agriculture Study Abroad trip to Trinidad with faculty as a transformative student experience in service to that country.

Faculty Level Achievements

- In 2015-2016, after reviewing FTE data, as well as, recognizing the need for program improvement through offering more courses from full time faculty, the program chair was granted an additional interim faculty position for 2016-2017. That year two new faculty joined the department, one new interim position with a focus in Agroecology and Agriculture Economics and one full-time Animal Science faculty to replace an employee leaving the college. The LCCC Ag chair in the spring of 2017 was offered a promotion to Dean of Math and Sciences, leaving LCCC Ag with an additional faculty vacancy. The fledgling faculty at that time advocated for the creation of a Program Director for Agriculture and Equine Studies to meet the managerial challenges of the growing programs. This new position would teach no more than two courses, in order to allow time to meet managerial responsibilities of the facility, faculty, staff, and Agriculture and Equine programs.
- Though the tenure of the entire Agriculture faculty is short, program enrollments have remained steady, course success is on the rise, and teams are growing and competing nationally.

C. Mission and Values

MISSION:
The mission of the Laramie County Community College Agriculture department is to provide dynamic learning opportunities for agriculture education and technical training to agricultural youth, community, and industry members, primarily by maintaining a progressive curriculum and interactive learning opportunities as they relate to job training and industry trends for the purpose of life experience or a successful transfer to a four year institution. This mission is achieved through collaborative efforts, strong work ethics and high levels of professionalism, leadership and standards of excellence.

Our program's mission aligns with the mission of LCCC (LCCC Mission Statement) in our passion to help students transform their lives by providing educational opportunities and hands on experience, which will further inspire student interest and knowledge in agriculture and the agriculture industry. We are continually assessing and refining our program striving to accomplish the four foundational elements laid out in LCCC's mission statement (Strategic Plan 2013-2020).

Academic Preparation: In our mission statement, the agriculture department emphasizes the importance of providing dynamic learning opportunities for students. We do this through evaluation of students' needs for future academic success as well as analyzing industry's needs, ensuring students are prepared to move to the workplace. Students' development is being assessed in comparison with program and college-wide competencies.

Transfer Preparation: The agriculture department currently has eight courses that are direct course-for-course transfers and numerous courses, which transfer as electives to the University of Wyoming. We have four articulated degree programs that are part of the 2+2 articulation agreement with the University of Wyoming. We a currently evaluating our student's success upon transfer the University of Wyoming.

Workforce Development: An important part of our mission is to be continually providing hands-on-technical training; we are working with our advisory board to ensure that the skills we are teaching truly align with the wants and needs within the agriculture industry. We will also be conducting a survey with former students to measure our effectiveness and identify needed improvements for workforce preparation.

Community Development: We strive to provide support for local high school agriculture programs by developing relationships high school instructors, inviting high school students to visit our classes, and providing workshops and educational programs in our facility, as well as, facilitating State FFA and Fall Rendezvous contests. Our program supports concurrent enrollment instruction for AGRI 1030 in seven different high schools in four different counties in the state.

VALUES:
We strive to accomplish our mission through the pursuit of the following values:

Collaborative efforts: Many of our classes are designed to ensure that collaboration is included as part of the assessment, students are encouraged and even forced work in teams, these teams are often made of members from different backgrounds, interest, and academic pursuits. Through hosting events and involvement in contests and outside activities, students and faculty alike are required to work with others to accomplish a common goal or task.

Strong work ethic: Faculty models a strong work ethic to students by being fully engaged both in and out of the classroom. This includes being active in the college and regional communities. The agriculture faculty demonstrates their work ethic involving students in multiple extracurricular programs such as rodeo, show team, livestock judging, and other campus activities.

High level of professionalism: The agriculture faculty sets and maintains a high level of expectation in striving for excellence academically, and in conduct both on and off campus. This includes preparing students to represent themselves and LCCC well in every contest and endeavor in which they are involved. The faculty leads by example and expects ethical and professional behavior in and out of the classroom. The agriculture faculty is also evaluating and implementing changes to improve our program across the board.

Leadership: The agriculture faculty is always aware that we are constantly modeling leadership as we interact with students. In doing this we attempt to hold ourselves to a high standard of conduct and behavior. We offer students many opportunities to practice and develop leadership skills and walk alongside them as they work to become leaders in the classroom, organization, and ultimately in the field of agriculture.

Standard of excellence: The agriculture faculty is continually pursuing excellence. We are doing this through the quality of our classroom instruction and level of expectation placed upon our students. We constantly evaluate our performance and make changes based upon this evaluation; we are challenging

each other to remain current in our disciplines through staying current with research and involvement in professional organizations. We also employ the expertise of our advisory board to ensure we are staying current with the needs and direction of the industries in which we train and develop students.

We developed our values to build upon with those of LCCC, which are Passion, Authenticity, and Desire to Make a Difference (Strategic Plan 2020).

D. Program Competencies and Outcomes

LEARNING COMPETENCIES:
The agriculture program is dedicated to providing our students with quality education and skills so that upon completion of their degree students will be successful in transferring to four-year institutions or will be able to pursue gainful employment in the field of agriculture. The following is the list of program learning competencies established for all agriculture program graduates:

1 Analyze management problems in agriculture; then evaluate and apply various tools to problem solve solutions and reflect on outcomes and effectiveness.

2. Use collaboration on an interdisciplinary level, foster teamwork, and work toward solutions in agriculture.

3. Practice accessing, evaluating, and combining appropriate resources to foster decision making in an agriculture setting.

4. Demonstrate effective verbal communication both in informal and formal settings by identifying and presenting to agriculture audiences.

A good example of how the agricultures program competencies and values align includes the emphasis of collaboration in the capstone course (AGRI 2395), in this course student works in team to develop a comprehensive agriculture business plan for an agriculture operation. Students are required to work on team projects in numerous other projects and activities as well.

Note: These are the program competencies proposed to ASC in fall 2016. When we began program review in fall of 2017, these unapproved competencies were all that we had. The final draft of unique program competencies for the seven programs were revised and accepted by ASC in spring of 2018. See the example below for one of the seven programs with revised learning competencies.

Program Learning Outcomes: Agriculture Business Concentration (A.S.)

Upon successful completion of this program, students will be able to:

- Demonstrate a problem solving approach to find solutions to agricultural economic and business management problems.
- Demonstrate a collaborative approach across disciplines performing interpersonal and interdisciplinary cross-collaboration.
- Employ economic theory to analyze current agricultural and food issues and policy.
- Explain and perform financial and managerial accounting procedures.
- Apply farm financial analysis tools, including ratios and trend analysis.
- Demonstrate practical application of algebra, statistics, and calculus to agribusiness decisions.

OPERATIONAL OUTCOMES:
The agriculture program's operational outcomes as follows:

1. Establish opportunities for students to network with in the agriculture industry to provide new opportunities for transfer or employment.

2. Provide a dynamic learning environment that will encourage lifelong learning for the individual student.

3. Increase enrollment of students who want the start their working career after an applied associate's degree.

4. Bestow a learning environment, which relates content in the classroom to practical use in a student's chosen career.

One example of how our operational outcomes align with our program values is efforts to provide hands-on learning experiences in classes and providing multiple opportunities for students to interact with agriculture professionals in and outside of classes. This allows students to create a network within the agriculture industry while emphasizing the high levels of professionalism in these interactions and demonstrating the importance of lifelong learning as demonstrated by working and excelling in the industry.

E. Abbreviated Summary of Program Data (KPIs)

Program Demand:

The Agriculture program is a high performing program that achieves strong ratings for the majority of KPI sections. Agriculture realized a high quintile rating for all sections comprising the participation KPI category. For example, its annual FTE had a three-year average of 66 and its number of "participants" had a three-year average of 289. Even though enrollment has been good, the program conducted a recruitment push striving to achieve a 10% growth for the fall of 2018. Changes in faculty over the past year will possibly make this more challenging but at this point expectations are high.

Student success:

For the past three years, the agriculture program showed a strong performance in student success with a three-year average course success rate of 87% and the three-year average number of degrees/certificates at 18. However, the program performed in the lower range for graduation rate for concentrators with a three-year average at 23%. This area is a concern to the program. It has been working with students to decrease graduation time and also working on reverse transfer, to have students transfer courses back to LCCC once they move to other institutions to ensure they are able to secure their Associates Degree. The program is also excited to see if the Guided Pathways program may help students complete degrees faster and achieve their academic goals.

Transfer Preparation:

Agriculture students are doing well in university matriculation with a three-year average university matriculation rate at 38%. Although this was a good performance according the University of Wyoming statistics, (UW Transfer Stats 15-16) the LCCC student GPA was slightly less than some transfer students,

so the program continued working to ensure its students are better prepared to be successful at the next level. More recent data for 2016-17 show that program efforts improved student outcomes with LCCC Agriculture transfer students leading all other transfer categories with a first-semester GPA of 3.15, which even exceeded UW native students earning a 2.99 GPA.

Job Readiness:

Although job readiness KPI data is unavailable at this time, the program is currently working with program modifications to provide internships, which have been encouraged by our advisory committee, and plan on conducting a survey in the next few months to research areas of employment success and job readiness.

Program Efficiency:

The program performs well in this category with a three-year average, core expenditures per FTE at $2,986 and a three-year average fill rate at 69%. The program's area of greatest concern is credits to completion, which has a three-year average of 66 credits. The program is reviewing areas of weakness for this indicator and found that student struggles with mathematics and their frequent switching majors are key issues. Again, the implementation of Guided Pathways may help students accomplish their academic goals more quickly.

F. Accomplishing the Program's Previous Action Plan Goals

The agriculture program conducted its last program review in 2010, and none the agriculture faculty members who were involved in this review are currently employed at LCCC. Because the previous program review process did not require recommendations or development of action plan goals, there were no action plans for the program to monitor.

G. Summary of Review Action Plan Goals

Throughout the review it became obvious that the program lacked meaningful data.

i) Issues with program competencies: As we struggled through the assessment information, it became obvious that even though we had assessment information from the institutional rubrics that related to our competencies, this information was not significantly beneficial in helping understand and or direct our program. The need for carefully written and approved competencies is apparent. We first must have clear competencies that tell exactly what we want our students to accomplish. Next, we must have accurate assessments that will provide data that is actually measuring the student's success in reaching these competencies.

ii) Lack of information regarding student's preparation for the industry and for transfer preparation: Although we do have a small amount of data regarding how our student's performed in transferring to the University of Wyoming, we have do not have data regarding their success at other institutions. Furthermore, even for those students who do transfer to the University of Wyoming, we have no understanding of any specifics about their preparation such as strengths or weaknesses in their preparation and what we as program need to be improving to enhance their success. In the area of employment preparation, we have obtained no real data from students or employers that gives us an accurate indication of student's job readiness or success in their ability to obtain work in the areas for which they were trained in our program. This information is fundamental in allowing us to grow and improve our program to better serve our students and the industry for which they are being trained.

Agriculture's Action Plan Goals appear below.

Goal One: To review and refine the Agriculture Program competencies. To have these competencies approved by the ASC and develop useful assessment tools for the competencies, which provide valuable assessment data to help direct and improve agriculture programs.

Goal Two: To obtain and develop a mechanism to receive feedback for past and recent graduates from the Agriculture Program. The program will focus on students' educational experience here at LCCC, their transfer success, and the preparation they received through our programs in equipping them for industry employment. Using these data, thoroughly evaluate our program and with the agriculture faculty and agriculture advisory committee to improve and build our agriculture programs.

H. Identified Strengths, Concerns, Opportunities, and Challenges for Student Learning and Program Operations Resulting from the Review Process

PLEASE NOTE THESE LISTS ARE NOT IN ORDER OF PRIORITY!

a) List of the agriculture programs strengths, concerns, opportunities, and challenges for student learning.

i) Strengths:

a) history of growing enrollments
b) faculty's passion for student learning
c) demand for agriculture graduates
d) strong culture of agriculture in institution and region
e) support from community
f) support from LCCC academic community
g) students

ii) Concerns:

a) student passion for excellence
b) lack of clear and assessable competencies
c) turn over in faculty
d) large demands on faculty's time
e) student academic background upon arrival
f) student leadership
g) student scholarships

iii) Opportunities:

a)growing job opportunities in agriculture industry
b) ability to recruit high quality students
c) challenge and grow students
d) students love for agriculture
e) industry partnerships
f) student scholarships

iv) Challenges:

a) distractions to student learning
b) aging facilities
c) lack of quality lab space and equipment
d) aging livestock and teaching facilities
e) balance between programs, facilities, student outcomes

b) List of programs strengths, concerns, opportunities, and challenges for <u>program operations.</u>

i) Strengths:
a) location
b) size of classrooms
c) size of classroom building
d) IT support
e) current staff
f) student work force

ii) Concerns:
a) aging facilities
b) budget for maintaining facility
c) budget for updating facility
d) lack of long range planning
e) support from maintenance on larger projects
f) facility appearance

iii) Opportunities:
a) location
b) room for growth
c) strength of rodeo program
d) industry partnerships
e) increase facility manage team

iv) Challenges:
a) dorm space
b) lack of support for facility maintenance
c) space for teaching livestock
d) greenhouse space near agriculture facility
e) no long range planning for ag/equine facility

I. Continuous Improvement: Follow-Up Reporting and Planning for Strengthening Program Performance

To be consistent with its continuous improvement processes, LCCC includes follow-up action planning in its academic program review activities. Program review includes a peer-review step where an Academic Standards Subcommittee for Program Review rates program performance using an Academic Program Review Rubric. Programs perform well on the majority of self-study sections, but occasionally the rubric rating identifies a few areas that need additional attention. For these situations, the program review process includes a structured follow-up planning phase to support program strengthening of these areas.

In early May, after programs have had their self-studies peer reviewed, the Academic Standards Committee notifies those programs that are to participate in additional continuous improvement planning. Academic Standards accepted the Agriculture program review without contingencies, so it was not required to submit follow-up action planning.