

Eastern Wyoming College

Instructional Program Review 2014 - 2015

Program: Agriculture Cluster

Prepared by:

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EASTERN WYOMING COLLEGE Instructional Program Review

Program Name: Agriculture Cluster

Part I: Statistical Data from the past three years:

	2011-2012	2012-2013	2013-2014	5-Year Average
Annualized FTE Enrollment	125.2	103.4	150.9	110.1
Annualized FTE Faculty	5.1	4.4	5.6	4.5
# Students	76	64	77	68
# Graduated	30*	10	16	15

FTE = Full-time equivalent Notes: *Includes the first Aquaculture class from the Lusk Women’s Prison, which was a large class the first year.

Modes of Delivery:

online compressed video face-to-face

Advisory Committee Members and Title or Role:

Steve Feagler	First State Bank
Jason Groene	Torrington High School Ag teacher/FFA Advisor
Kelly Groene	Adjunct EWC Ag instructor
Dewey Hageman	Ag Business
Dave Hansen	Bank Ag loan officer
Dan Keener	WESTCO
Wheaton Kremke	Points West Community Bank
Christine Miller	Miller Feedlot
Ron Miller	Ag equipment dealer
Matt Moore	Cattle buyer
Brent Mullock	Bank Ag loan officer
Ross Newman	Ag producer and County Commissioner
Bob Pedulla	Scottsbluff, NE, High School Ag teacher/FFA Advisor
Dixie Roth	Ag producer

Community Partners or Internships:

The Eastern Wyoming College Agriculture Program collaborates and has developed working relationships with numerous producers, businesses, and institutions throughout our region. Local agriculture business and financial institutions continuously assist in helping students gain hands-on experience. The Agriculture Education program has developed a relationship with Goshen County Schools for classroom observation and practicum. The Ag Department has been working with Korinne John, a UW student, and the City of Torrington in the creation and development of the Green Acres Community Garden. The Ag Department is also involved in a UW Weed Science sponsored contest called the “Cheat Grass Challenge,” being held at the SAREC facility. We have two plots where we will be trying different methods to control cheat grass. At the end

of two years the team that controls the cheat grass, develops the widest natural diversity of plants, is most cost effective, has a scalable method of control, and can market its methods the best, will be declared the winner. The following is a list of some of additional partnership and/or internship locations:

UW SAREC	University of Wyoming Extension	Brown & Co., Inc
George Oschner Ranch	Cherry Creek Angus	Lippencott Feeding
Miller Feedlot	M Lazy Heart Ranch	Jeff Chapman Family
Scott & Allison Salo	Bartlett Appraising	Al & Kay McKee
Dinklage Feedlot	Little Chena Cattle Co.	Hoffman Farms
Doug Booth Family Angus	Patti & Steve Griffith	Z & W Mill
Arrow A Performance Horses	Pinnacle Bank	Wayne Tatman
Steben Cattle Company	Steben Farms	Yorges Farms
Don Bruner Feed Sales	Stokes Land & Livestock	Westco
Goshen County Schools	Hitchcock Performance Horses	Matt Moore, Cargill
Wyoming Farm Bureau	Wyoming Game & Fish	Torrington Livestock
Middleswarth Herefords	Platte Valley Bank	Pinnacle Bank USDA
USDA FSA Office	Shepard Farms	Marker Ag
Simplot	Downer Farms	Kelly Pack
Wyoming Vocational Agricultural Teachers Association		

Revisions in Curriculum since Last Review:

There have been no major revisions in the curricula since the last review. During this period the Ag faculty did some mapping and reordered what semester certain classes were offered. For example, it made more sense to offer Farm-Ranch Business Records in the spring semester of the freshman year, then Farm-Ranch Business in the fall of the sophomore year, and then Agri-Business Finance the spring of the sophomore year. For the core requirements of the AGBSS program we allowed some choices depending on whether the student was interested in livestock or in crops/agronomy. We went through the two-year programs and cut the required hours back to 60 hours. The main way we accomplished this was to adjust the elective hours required in the programs. In the Beef Production certificate we took out the required Farm-Business Management class and replaced it with Farm-Ranch Business Records. We expanded some of the electives that could be used in the program at the advisor's discretion. Because of more student interest and a continuing market demand for graduates, we worked with the Education department to develop an Agriculture Education option in the Secondary Ed program.

Part II Narrative Analysis

Description of Community Need

The Eastern Wyoming College service area consists of the top agriculture production in the State of Wyoming, leading the state in almost every category of livestock and crop production. The agriculture sector in the United States has more job opportunities in production agriculture and

agri-business than current agricultural graduates to fill these positions. Food production will need to double in the next 30 to 40 years to meet the food and fiber needs of a growing population that will reach 9 billion by 2050. Rural communities, farms, and ranches will be dependent on a workforce that will have skills in machinery maintenance, welding, crop production, range management, and livestock husbandry/production, plus life skills in communications, time management, decision-making, and leadership.

Description of State and National Trends

United States	Employment		Percent Change	Job Openings
	2012	2022		
Agricultural Workers	815,500	789,300	-3.2	245,500
Wyoming	Employment		Percent Change	Job Openings
	2012	2022		
Agricultural Workers	1,226	1,302	6.2	448

It is impossible to list all of the various agricultural careers that students are entering either upon graduation from EWC or eventually upon graduation from a transfer institution. For example banking and finance, agri-business, or entrepreneurial ventures would all indicate higher than average annual wages. For purposes of this report, the general category of Agricultural Workers was used.

State and National Wages (from 2004 through 2014)

Location	Pay Period	Year or Period				
		10%	25%	Median	75%	90%
United States	Hourly	8.31	8.63	9.15	10.57	13.51
	Yearly	17,290	17,950	19,040	21,980	28,000
Wyoming	Hourly	8.22	9.55	13.06	17.79	22.20
	Yearly	17,090	19,860	27,170	36,990	46,170

Other information or comments that would assist the Commission: Information on this chart was from Wyoming Employment Projections http://doe.state.wy.us/lmi/proj2005/long_occ2014.htm. Wage data are collected by each state through the Occupational Employment Statistics (OES) survey, conducted by the Bureau of Labor Statistics (BLS) at the U.S. Department of Labor. National wage estimates are developed by BLS. State and national occupation information is classified using the Standard Occupation Classification (SOC) system.

Activities in Support of Student Recruitment and Retention:

This past year the Ag faculty participated in the General Obligation campaign to get the one cent Capital Sales tax passed to raise money for ATEC. They attended meetings, gave presentations, delivered informational materials door-to-door, and talked on the radio. Strong advising activities are provided by the Agricultural faculty. Students are placed in classes according to their ability and in line with Compass guidelines. The Block & Bridle organization provides extracurricular activities that tend to create cohorts of Ag students. In the area of recruiting, faculty members visit local High Schools, attend the state-wide High School Ag Teachers (Wyoming Vocational Agriculture Teachers Association) meetings, and contact potential students via mail and phone. Ag faculty and students are involved in the Sage Brush and Roses Banquet which helps raise funds for the program. The Ag faculty host the annual Ag/Rodeo awards banquet each year where top students and graduating students are recognized. Ag faculty

also hosted an Ag Day where prospective students are invited on campus for information and tours, and then given free tickets to attend the EWC college rodeo. We did this for two years and then this year we decided to become more involved instead in the all-school visitation day, Lancer Look, in February. Ag faculty create activities during Technology Day to provide prospective students a hands-on exposure to areas that they will be studying when they attend college. The Ag faculty developed and carried out the "Gate to Plate" program for teenage attendees of the State 4-H Leadership Conference. The Ag and Vet Tech Departments host the State FFA Vet Science CDE contest. This contest has grown in size, both in number of contestants and number of participating teams, for the last three years that we have hosted it. We attend the State FFA Convention to present the awards for the contest and we also sponsor Scholarship awards for several other CDE contests, including Farm/Ranch Management, Ag Mechanics, Prepared Speech, and Extemporaneous Speech. The Livestock Show coach and team members will be helping with the Eastern Wyoming Youth Livestock Exposition that will be held at the Goshen County Fair Grounds. The Show Team has been successful in their participation at the Arizona Stock Show and the Denver Stock Show. The EWC Ag department also sponsors awards at the Wyoming State Fair and sponsors the Supreme Cow program at the Goshen County Fair.

Assessment of Student Learning

The Program assessment tool for AAS students is the capstone course where students develop a business plan utilizing the course material that they have covered during their program at EWC. These business plans display much thought, insight, and practical applications of the course material that the students have taken. The Program assessment tool for AS students is the capstone course where students develop an in-depth research paper in an area of the student's interest. The completed paper is also presented orally to the instructor and fellow class members. Students have exhibited excellent research and presentation skills in creating their research papers. Students were previously evaluated using the Perkins Post Secondary Evaluation Rubrics, but that assessment tool is no longer used in the program. The Beef Production Certificate program uses a cumulative exam. There have been no recent graduates in this program.

Several years ago we made substantial changes in the AAS Farm/Ranch program as per recommendation of the Advisory Committee by including more transfer level classes in the general education area. The result has been that fewer classes have been cancelled because of low enrollment and students have performed well in these classes. When students have decided to pursue a transfer program rather than an AAS program, we have found that they face fewer problems in the transition. Annually the University of Wyoming reports how EWC students that transferred there are performing. We routinely find that our transfers are doing as well as or better than other community college transfers and students that began their education at the University. We also have found that most students that have graduated from EWC in Agriculture areas have found jobs in or in similar areas where they wanted to work. We also collapsed the different Ag majors into an umbrella AGBSS degree with areas of emphasis. In assessing this change we have found that we are increasing our enrollment and increasing the number of

students who graduate. In summarizing all of these assessment tools, we have found that students in general have been able to utilize their education to do well in our assessments and when they leave EWC, either to further their education or to go out into the job market.

Strengths of the Program and Faculty:

Even though we do not currently have dedicated facilities for classes, instructors have been able to improvise and utilize local resources in order to provide students with hands-on lab experiences where students have the opportunity to apply the things discussed in class. Despite the lack of “showroom” facilities, a strong faculty and program have still proven a good draw to bring students to EWC. This past year the faculty have worked hard to get the GO Bond successfully passed to raise additional funds for ATEC, the new Agriculture Technology and Education Center. Once that was passed, faculty have been involved in numerous meetings with the architects to develop a facility that will be usable, functional, and flexible for the future. The program has an advisory committee that meets at least twice a year to review curriculum and make suggestions about the programs. This year we even had a third meeting because several of our Advisory committee members wanted to spend more time looking at proposed ATEC prints. Our faculty members have strong backgrounds and, in some cases, faculty are currently involved in agriculture production and students benefit from this experience. Faculty work closely with students in order to ensure they receive the best quality education. We have low student to faculty ratios so that faculty get to know their students very well.

EWC has made progress in working with the University of Wyoming at the SAREC facility and will continue to develop relations to mutually benefit both institutions. We decided to invite personnel from SAREC and the UW Extension Service to come to our monthly Ag faculty meetings every quarter. We found this was a good way to discuss mutual challenges, share upcoming meetings/activities, and work on ways that we could together provide better service to our local community Ag members. We completed the Livestock Barn facility and we have been using it to house animals for the Livestock Judging team members to practice on. There have been a few learning pains in using the facility, but it has added significantly to our Ag program. It allows us to use our own animals in livestock evaluation classes instead of having to load up and travel somewhere. Over the last several years EWC Ag has instituted most of the recommendations that were made in the huge community assessment survey that was completed for the Ag program. Because of this and the strength and background of a new faculty member, we have added the Livestock Show team to our offerings and this has been a very popular activity and has generated great student participation. Ag faculty continue to attend state FFA functions and meetings, and this has already begun to bring results to the program. A great addition to the Ag program was the ability to have Dr. Monte Stokes as a full-time Ag faculty member. This has decreased the need for adjuncts and allowed us to increase the course offerings for the students. Dr. Georgia Younglove has brought a lot of experience and expertise to our program and taken the Livestock Judging and Livestock Show teams and begun developing them into future viable and strong activities for EWC Ag students. The “Sagebrush and Roses” dinner/dance that raises funds for our Ag and Livestock Judging programs continues to grow and has become one of the most outstanding and most anticipated community events that we have in Goshen County.

Part III Recommendations

Faculty Recommendations

Faculty feel that we still have work to do as far as getting our course rotations down so that students will have the opportunity of taking classes they want while they are here. We are starting to incorporate BQA certifications in some of our classes, but we need to continue exploring all of the possibilities. We recommend that we look at expanding our faculty in the area of agronomy. We continue to have increased student interest in classes like soils, fertilizers, irrigation, and chemicals. We recommend that we examine the work load of the livestock judging and show team area. The current faculty member taking on these responsibilities is working many extra hours for the ¼ time credit that she is receiving. As ATEC becomes a reality we would recommend exploring the possibility of having someone to oversee the scheduling and activities of ATEC. It is going to need a “building manager” to make sure that activities are not scheduled on top of each other, etc. We feel this could possibly be something that a work study student might be able to handle. As the scope of our Ag program continues to grow and expand, we would recommend that we look at the possibility of having an Ag Department person designated as the “Department Head” to take care of the expanded administrative duties that are going to result. We need to keep monitoring how are recent changes are affecting student performance and student numbers. We will continue to explore educational approaches in the classroom that will improve student engagement and student learning. As our facility program continues, we will need to step up our recruiting efforts and intensify our efforts to be more involved in Ag community activities. We also want to continue exploring additional program possibilities as our facilities materialize. An alumni list or contact program needs to be created and utilized for marketing and fundraising purposes.

Advisory Committee Recommendations

The Committee recommends that we continue to monitor the results of the changes we have made the last few years in the Ag program. Committee members have provided invaluable advice in analyzing the proposed ATEC prints. They have suggested we be sure to have tie downs in the demonstration area, have indoor wash facilities, and have room for livestock when we have various shows and activities. They have recommended that we keep the Beef Production certificate but keep a close look on how it is doing. They recommend that we continue to look into various types of certification programs that we can give our students so that they go into the work place with just more than a degree. They recommend that we begin looking now at the various community activities that we might be able to host in ATEC—from local to national shows, trainings, workshops, expositions, etc. They continue to recommend more involvement and contact with every possible Ag related activity in the community and state, especially 4-H and FFA youth activities.

Division Chair Recommendations

There have been exciting changes taking place in the Ag area since the last program review. We have continued to have a successful Livestock Judging team that has done relatively well in regional and national contests and has provided participating students with competition skills and personal skills in evaluating and communicating that will enrich the rest of their lives. We have more and more students competing every year. We have launched a Livestock Show Team that has generated good student interest and the students are doing well. We have an Ag faculty team that is dedicated to growing and improving our Ag program. This past year we took a trip to explore the Scion UAV (Unmanned Aerial Vehicles) business in Fort Collins during Fall break and provided the “Gate to Plate” program during Winter break, so they have been willing to give up their vacation time for the Ag program. We have strengthened our local ties with SAREC, the UW Extension service, and local producers. We have begun participating in more statewide meetings with FFA Ag instructors/advisors. These activities are bound to result in more recognition and more EWC student recruitment. Specific recommendations are as follows:

- Continue advising architects to refine our building plans to provide the most usable, functional, and flexible space that we can.
- Continue close involvement with local Ag entities such as SAREC, Extension, and other Ag related organizations.
- Continue involvement with FFA and 4-H activities, state meetings, and contests.
- Strengthen recruitment activities by visiting high school Ag classes where possible.
- Continue the monthly meetings with Ag instructors so that planning, implementation, and creation of goals and objectives may continue, and continue to invite Extension and SAREC personnel quarterly to attend the meetings also.
- Continue statewide articulation meetings with UW and Wyoming Community College instructors so that we can be aware of what is happening in other institutions.
- Address the outcomes assessment process for any improvement and changes that might better reflect student learning and possibilities for more appropriate techniques.
- Continue working closely with the Vet Tech faculty so that full use of resources can happen by using them in both programs.
- Continue exploring other possible additions to the Ag program so that we can increase student certifications and make more complete use of our new facilities.

- Continue the exploration of other certificate or degree programs that might be developed in the Ag area to meet the demands of the working world.

Vice President's Recommendations

I couldn't be prouder of the progress we have made in the agricultural program areas in the last three years. We have developed a team of collaborative agriculture instructors which includes both full-time and part-time instructors. The part-time instructors play a key role in this area as they bring unique experiences to the classroom and laboratory that would be difficult to replicate. The efforts expended with helping the G.O. Bond campaign be successful and planning the ATEC facility with the architect will pay off tremendously in the next few years as we finally realize our dream of having dedicated agriculture facilities. I agree with recommendations from the division chair and would add the following:

- Explore and expand distance learning offerings as related to agricultural courses.
- Seek additional qualified adjuncts to teach courses.
- Enhance recruitment efforts to reach the goal of 10 additional students per year for each of the next five year.
- Develop scheduling of courses for the ATEC that will allow students to enroll in general education courses at certain blocks of time.
- Continue to be involved in the planning and programming for ATEC.