




LARAMIE COUNTY
COMMUNITY COLLEGE
Cheyenne | Laramie | Online

MEMORANDUM

To: Dr. Joe Schaffer, President
Members, President's Cabinet

From: Dr. Kari Brown-Herbst, Vice President Academic Affairs 

CC: Dr. Jill Koslosky, Dean, School of Business, Agriculture, & Technical Studies
Dr. Seth Heinert, Program Director, Agriculture & Equine

Date: 7 June, 2021

Subject: Proposed Credit Diploma in Agriculture Production Technology

The Guided Pathways initiative at the College has created a deep examination of our academic offerings. This examination has challenged us to ensure our programs adhere to the tenets of the Pathways framework in supporting our students' success. Specifically, the College has committed to offering academic programs that are clear and intentional in design to meet students' goals in employment or further education. It is with respect for these tenets that I seek approval for a new Credit Diploma, Agriculture Production Technology.

PROGRAM OVERVIEW:

The agriculture industry in America, as in Wyoming, is a stable contributor to the economy and employment. Agriculture in Wyoming is one of the top three industries in the state, contributing over \$1.5 billion annually in sales, representing approximately 2.1 percent of Wyoming's total GDP (USDA, 2017). Laramie and Albany County's agriculture producers' combined efforts annually make up over \$235 million in market value of products sold (USDA, 2017). There are nearly 12,000 farms and ranches in the state which, coupled with the supporting industries, represent a significant and sustainable employment opportunity.

Skilled workers in production agriculture are critical to the food, fiber, natural resources and agriculture industries. Yet, with constantly changing technologies, creating these skilled workers to meet the regional demands of the agriculture industry has proved challenging. LCCC has the opportunity to supply Wyoming and surrounding states with a highly-skilled workforce in a timely fashion. LCCC has the advantage of a world-class facility to offer hands-on instruction to students in agriculture production technology as well as regional access to producers for a short-term internship. To feed an estimated world population of 9.5 billion people by the year 2050, the state, regional, and national agriculture industry must have a well-trained and readily available workforce.

Feedback from the agriculture and equine advisory council, observations from staff, and regional trends pointed to the need for this degree. In effect, this proposal is to take the existing Ag Production

Technology AAS, a two-year degree, and shorten it to a one-year credit diploma. This short-term approach makes gaining skills in the essential industry of agriculture more accessible to students who are eager to enter the workforce. Further, this program aligns with the two-year associate's degree for those students who also want to move on for further education.

PROGRAM OUTCOMES:

The program has completed the required development and review process and has received approval of the Academic Standards Committee. The Credit Diploma is comprised of 29 credits, 8 of which result from the successful completion of a workplace internship. The 2-semester program sequence was developed for full-time students.

Upon successful completion of the Credit Diploma, students will be able to:

1. Apply critical thinking using academic and technical skills to operational problems faced by the agriculture production industry.
2. Apply principles of nutritional management to promote animal health.
3. Choose agricultural methods that balance agriculture production goals with environmental concerns.

Students will have the opportunity to meet these outcomes through the following program sequence:

Agriculture Production Technology Program Sequence			
1st Semester			
	ANSC 1010	Introduction to Animal Science	4
	AECL 1000	Agroecology	4
	RGMG 2000	Principles of Range Management	3
	STRT 1000	Strategies for Success	3
Semester Total:			14
2nd Semester			
	ANSC 2025	Livestock Nutrition	2
	ANSC 2560	Reproductive Technology	3
	CROP 1150	Pesticide Safety & Application	2
	AGRI 2470	Agriculture Internship	8
Semester Total:			15

STAFFING IMPACT:

Current faculty are qualified to teach all courses in the program and have capacity for the instructional responsibilities.

BUDGET IMPACT:

No new or outside funding is required to implement the Agriculture Production Technology credential. Without the need for a new position or increases in courses or faculty workload, we expect the budgetary impact for implementation of this credential to be minimal.

Wyoming Community College Commission

NEW PROGRAM REQUEST FORM

College	Laramie County Community College				
Date	May 13, 2021				
Program Title	Agriculture Production Technology				
Type of Credential	<input type="checkbox"/> AA	<input type="checkbox"/> AS	<input type="checkbox"/> AFA	<input type="checkbox"/> AAS	<input type="checkbox"/> Certificate
	<input checked="" type="checkbox"/> Other	Credit Diploma			
Total Credit Hours	29				
CIP Code	01.0301				
Classification of Instructional Programs/CIP obtained from the National Center for Educational Statistics at https://nces.ed.gov/ipeds/cipcode/browse.aspx?y=55 . Double check your recommendation with the course coordinator and/or Student Records.					
Title	Agriculture Production Operations General				

Rationale for request	
Type of Program	<input type="checkbox"/> Transfer preparation <input type="checkbox"/> Short term workforce placement <input checked="" type="checkbox"/> One-year workforce placement <input type="checkbox"/> Special need endorsement
Certificate Questions <i>More than one may apply</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No local or state employer or industry specific <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No nationally recognized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No examination or licensure preparation <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No practicum <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No stackable <u>Title IV</u> Financial Aid Eligible <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (minimum of 16 semester hours) (Stafford Loans, Perkins Grants, Pell Grants and Federal Campus-based Grants)
New program start	<input type="checkbox"/> NA OR identify the semester the program will start: Fall 2022
Taught by non-accredited vendors?	<input type="checkbox"/> YES (see below) <input checked="" type="checkbox"/> NO Click or tap to enter text.
WCCC or State Priority	<input checked="" type="checkbox"/> YES (see below) <input type="checkbox"/> NO

	(See the WCCC website , there are several programs which have a state priority, such as the Governor's Economically Needed Diversity Options for Wyoming/ ENDOW)
	Sustainable Harvest: Crop and Livestock Production

Program Curriculum						
Program Description	The Credit Diploma in Agricultural Production Technology prepares students to immediately enter the workforce in direct support of production agriculture working as an employee or entrepreneur in livestock and / or crop production. Students enrolled in this credit diploma will gain industry certifications for commercial pesticide application and artificial insemination as well as a supervised internship. The technical expertise offered in this degree program can be easily embedded in the Agriculture and Equine Management Pathway Associate of Applied Science.					
New Curriculum	<input checked="" type="checkbox"/> YES (see below) <input type="checkbox"/> NO					
List the new courses alphabetically . Include prefix, course number, course title, credit hours. Check the Wyoming Transfer Catalog for possible courses and numbers. Additionally, WCCC has a statewide common course numbering system (CCNS). Colleges must ensure all new courses are aligned with the CCNS. Confirm this alignment with the course coordinator and/or Student Records. Note that CCNS alignment and/or new course title and number requests to the WCCC will take at least a week to process.						
College Catalog Considerations (check all that apply)	Prefix	Number	Title	Credits	^LOI	
<input checked="" type="checkbox"/> New course <input type="checkbox"/> New number <input type="checkbox"/> New prefix <input type="checkbox"/> New title <input checked="" type="checkbox"/> CCNS alignment	ANSC	2560	Reproductive Technology	3	2	
<input type="checkbox"/> New course <input type="checkbox"/> New number <input type="checkbox"/> New prefix <input type="checkbox"/> New title <input type="checkbox"/> CCNS alignment	Click or tap here.	Click or tap here.	Click or tap here to enter text.	Click or tap here.	Click or tap here.	
<input type="checkbox"/> New course <input type="checkbox"/> New number <input type="checkbox"/> New prefix <input type="checkbox"/> New title <input type="checkbox"/> CCNS alignment	Click or tap here.	Click or tap here.	Click or tap here to enter text.	Click or tap here.	Click or tap here.	
<input type="checkbox"/> New course <input type="checkbox"/> New number <input type="checkbox"/> New prefix <input type="checkbox"/> New title <input type="checkbox"/> CCNS alignment	Click or tap here.	Click or tap here.	Click or tap here to enter text.	Click or tap here.	Click or tap here.	
<input type="checkbox"/> New course <input type="checkbox"/> New number <input type="checkbox"/> New prefix <input type="checkbox"/> New title <input type="checkbox"/> CCNS alignment	Click or tap here.	Click or tap here.	Click or tap here to enter text.	Click or tap here.	Click or tap here.	
<input type="checkbox"/> New course <input type="checkbox"/> New number <input type="checkbox"/> New prefix <input type="checkbox"/> New title <input type="checkbox"/> CCNS alignment	Click or tap here.	Click or tap here.	Click or tap here to enter text.	Click or tap here.	Click or tap here.	

<input type="checkbox"/> New course <input type="checkbox"/> New number <input type="checkbox"/> New prefix <input type="checkbox"/> New title <input type="checkbox"/> CCNS alignment	Click or tap here.	Click or tap here.	Click or tap here to enter text.	Click or tap here.	Click or tap here.
<input type="checkbox"/> New course <input type="checkbox"/> New number <input type="checkbox"/> New prefix <input type="checkbox"/> New title <input type="checkbox"/> CCNS alignment	Click or tap here.	Click or tap here.	Click or tap here to enter text.	Click or tap here.	Click or tap here.
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<input type="checkbox"/> New course <input type="checkbox"/> New number <input type="checkbox"/> New prefix <input type="checkbox"/> New title <input type="checkbox"/> CCNS alignment	Click or tap here.	Click or tap here.	Click or tap here to enter text.	Click or tap here.	Click or tap here.
<input type="checkbox"/> New course <input type="checkbox"/> New number <input type="checkbox"/> New prefix <input type="checkbox"/> New title <input type="checkbox"/> CCNS alignment	Click or tap here.	Click or tap here.	Click or tap here to enter text.	Click or tap here.	Click or tap here.
TOTAL CREDITS				3	

^Course Coordinator can provide.

Similar programs in Wyoming? (See WCCC Program List)	<input type="checkbox"/> Yes (list Colleges below) <input checked="" type="checkbox"/> No There are no one or two-year degrees in Wyoming in Agriculture Production Technology. The most comparable programs are at Casper College, Sheridan College and Eastern Wyoming College who all have a two year AS degree in General Agriculture that encompasses more general education requirements and do not have a required internship.
Discussions with other Community Colleges	<input type="checkbox"/> Yes (see below) <input checked="" type="checkbox"/> No (see rationale below) Click or tap here to enter text.

Additional Resources (faculty, support services, equipment or supplies)	<input type="checkbox"/> Yes (see below) <input checked="" type="checkbox"/> No STAFFING IMPACT: We are able to offer this CD with the existing staff. BUDGET IMPACT: We are able to offer this CD with the existing budget resources.		
Primary Student Audience	The primary student market for this program is a traditional student, age 18-25, with an interest in the production agriculture discipline with an emphasis in relevant technologies.		
Anticipated three-year unduplicated headcount	Year one: 12	Year two: 13	Year three: 14

Projected Demand in Wyoming and Nationally

(Labor market anticipated demand upon completion of the program and wages for this career field)

Suggested data sources for Occupational Outlook and Wages:

- Career One Stop- [US Department of Labor](https://www.dol.gov)
- Bureau of Labor Statistics (occupational outlook handbook) <https://www.bls.gov/ooh/>
- Wyoming Labor Market Information (WLMI) <http://doe.state.wy.us/lmi/>

Projected Demand

Location	Employment			
UNITED STATES	Year 2019	+10 years	Percent Change	Job Openings
	952,300	890,600	-7%	80,900
WYOMING	Employment			
	Year 2019	+10 years	Percent Change	Job Openings
	2,010	2,080	4%	210

State and National Wages

Location	Pay Period	Year 2020				
		10%	25%	Median	75%	90%
UNITED STATES	Hourly	\$16.87	\$20.60	\$32.73	\$46.63	\$62.86

	Yearly	\$35,090	\$42,850	\$68,090	\$96,980	\$130,760
WYOMING	Hourly	\$16.87	\$20.60	\$32.73	\$46.63	\$62.86
	Yearly	\$35,090	\$42,850	\$68,090	\$96,980	\$130,760

APPENDIX A- PROGRAM TERM BY TERM PLAN

Provide the program's term by term plan below

WCCD PROPOSED PROGRAM OF STUDY FOR: Agriculture Production Technology

RECOMMENDED CURRICULUM SEQUENCE: PROPOSED			
COURSE			
Prefix	Number	Title	Credits
<i>Fall Semester 1st Year</i>			
ANSC	1010	Introduction to Animal Science	4
AECL	1000	Agroecology	4
RGMG	2000	Principles of Range Management	3
STRT	1000	Strategies for Success	3
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
TOTAL FALL SEMESTER			14
<i>Spring Semester 1st Year</i>			
ANSC	2025	Livestock Nutrition	2
ANSC	2560	Reproductive Technology	3
CROP	1150	Pesticide Safety & Application	2
AGRI	2470	Agriculture Internship	8
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
TOTAL SPRING SEMESTER			15
TOTAL PROPOSED PROGRAM CREDITS			29