DATE: August 26, 2016

TO: Dr. Kate Miller, Provost
    Cc Dr. Anne Alexander, Associate Provost

FROM: D. Ray Reutzel, Dean

RE: Agricultural Education Program Review

After reviewing the data presented in the Program Review Report as per University regulation, I am providing you a memorandum of recommendation related to the above named degree program, Agricultural Education. The program housed on the Laramie campus has had a history of low productivity in terms of the number of degrees awarded.

The Agricultural Education (Ag Ed) program has no national specialized program accreditation (SPA) body, but is approved by the Wyoming Professional Standards Teaching Board (PTSB) making the degrees awarded eligible for professional licensure, certification or endorsement in Wyoming. Consequently, the Agricultural Education program meets state accreditation standards as a program recognized with conditions. Conditions of the program will be addressed in future PTSB accreditation cycles.

The Ag Ed program at UW has a fine reputation for quality in the state of Wyoming and beyond. Moreover, UW is the only instate degree in Ag Ed, an area of the Wyoming economy that is currently among the top three economic drivers in the state of Wyoming. The Ag Ed program is integrally involved in agricultural education programs, clubs, competitions, etc., in Wyoming high schools. In fact, UW serves as a statewide hub for many Ag Ed related groups, clubs, and competitions.

Despite the need for Ag Ed teachers in the state of Wyoming and in other surrounding states, the major in agricultural education has been undersubscribed for many years now. Direct instructional expenditures are among the highest in the College of Education and course enrollments are perennially below university course enrollment standards. Agricultural Education is considered mission central due to the nature of a land grant university mission and its relation to a state that is highly invested in agriculture as part of the state’s economy. Any attempt to remove Ag Ed from the university’s suite of degree offerings is likely to meet the stiffest of opposition and would likely not be worth the cost to the university’s reputation with a key constituency of UW- Wyoming’s farmers and ranchers.

My recommendation is to retain the Ag Ed program due to critical need in Wyoming but investigate moving this degree to a concurrent major in agriculture with the College of Agricultural and Applied Sciences, develop a vigorous recruitment and enrollment management plan, consider
a rolling two year cohort admissions and program delivery model, and create 2+2 articulation agreements with Wyoming’s seven community colleges to smooth transfer students’ entering and completing this program in a timely manner.

DRR
Deans and Directors who administer an authorized major or course of study approved by action of the Board of Trustees will be responsible for conducting program reviews. Four key elements should be addressed in each academic program review: (1) Program Demand, (2) Program Quality, (3) Mission Centrality, and (4) Cost.

For each program that is reviewed, a recommendation will be made by the Academic Dean to the Vice President of Academic Affairs.

**Instructions:** Please provide the following information:

**Title of Program/Specialization:** Agricultural Education  
**Indicate whether undergraduate or graduate program/specialization:** Undergraduate  
**Department and College:** Secondary Education; College of Education  
**Department Head Name and contact information (phone, email):** Dr. Kate Muir Welsh  
(307) 766-2013  
kmuir@uwyo.edu

**Part 1 – Program Review**

*Instructions:* Please answer each of the following questions. Items listed under each question have been provided to help guide your response. If an item is not applicable, simply indicate “N/A”.

1. **Program Demand**:
Agricultural Education is an undergraduate program only with student teachers enrolled in methods classes in the Fall Semester and completing their residency/student teaching experience in the Spring semester. Over the course of a five–year period, the Agricultural Education program fails to achieve minimal productivity standards (n=10 degree graduates per year, 50 graduates over five years) qualifying it for Stage 2 Academic Program Review. Program graduates are distributed as follows.

2017 – 2 Graduates (Estimated)  
2016 – 3 Graduates  
2015 – 7 Graduates  
2014 – 6 Graduates  
2013 – 9 Graduates  
2012 – 5 Graduates; 2 post baccalaureates
2. Program Quality: Is the program of high quality?
   a. Program accreditation

   1. The Wyoming Professional Teaching Standards Board (PTSB) is the agency responsible for licensure and endorsement of the Agricultural Education graduates for the state of Wyoming.

   2. The most recent PTSB accreditation process was completed and approved in the June 15–16, 2015 Wyoming Professional Teaching Standards Board (PTSB), as recommended by the Program Review Committee. According to the PTSB, the Agriculture Education Program (B.S. leading to initial educator licensure) is approved through the semester and year of the institution’s next CAEP accreditation decision in 2023. To retain approval, another program report shall be submitted mid-cycle (2020) before the next scheduled accreditation visit (2023).

   3. The program will follow the accreditation cycle of the College of Education national accreditation which will occur again in seven years (2023).

   4. List recommendations from most recent visit and progress to date.

There are seven Wyoming PTSB Standards in the Agriculture 6–12 endorsement area. In the most current PTSB (2015) evaluation, five were met with no concerns, while two were met with conditions:

Program Standards Met with Conditions:
Standard 3: Knowledge and skills necessary for establishing and supervising youth organizations that prepare students for leadership, personal growth, and career success.

Comments/Rating Explanations:
Nowhere in the midterm or final does it demonstrate or mention teacher candidate involvement in FFA or SAE, which are two out of the three parts of the Agricultural Education Model. There are no classes required that specifically teach FFA theory/methods or SAE theory/methods.
It is unclear whether students become familiar and well-versed on Ag Ed Tracker (AET), Wyoming’s SAE Record Keeping and Awards Application, or familiar with National FFA Roster Program. It is critical to have awareness of these programs prior to starting student teaching.

Condition: Students must be trained more on the current record keeping systems (AET and AgCn). The program needs to assess their candidates in the use of these types of record keeping systems.

Response:
The Agricultural Education Methods and Residency experience coursework
EDSE 3278 – Subject Matter Specific Methods I: Secondary Agricultural Education
EDSE 4278 – Subject Matter Specific Methods II: Secondary Agricultural Education
EDSE 4500 – Residency in Teaching
all offer experiences and opportunities for pre-service teachers designed to satisfy the above concerns. Guest lecturers provide experiences for students in these areas. Mr. Brock Burch, Agriculture teacher from Natrona County schools, provides a hands-on
workshop during the methods classes targeting the Ag Ed Tracker (AET), its use, and opportunities for student achievement.

Mrs. Stacy Broda, Wyoming State FFA Advisor, provides a hands-on training opportunity for the pre-service teachers regarding the Wyoming SAE Records Keeping and Award Application, as well as the National FFA Roster Program.

In the above comments from the reviewers, nowhere in the midterm or final does it demonstrate or mention teacher candidate involvement in FFA or SAE, which are two out of the three parts of the Agricultural Education Model. There are no classes required that specifically teach FFA theory/methods or SAE theory/methods. FFA, and SAE theory instruction is included in the EDSE 3278 and 4278 curricula. Although time allocation prevents considerable detail, students are exposed to the theory, and have an opportunity to practice the principles in the field, during the EDSE 4500 Residency Experience. In the previous statement, EDAG 3160 – Principles of Agricultural Education, which was eliminated prior to the Fall of 2011, included course theory specifically targeting these areas and PTSB concerns could feasibly be addressed with the continuation of this course in a more modern format.

**Standard 4: Knowledge and skills necessary for planning, promoting, organizing, and administering supervised agricultural experience programs outside the classroom.**

Comments/Rating Explanations:

Nowhere in the midterm or final does it demonstrate or mention teacher candidate involvement in FFA or SAE, which are two out of the three parts of the Agricultural Education Model. There are no classes required that specifically teach FFA theory/methods or SAE theory/methods.

The committee was unsure how students meet these criteria, especially if they were not a former FFA member.

**Condition:** Program must provide more specific evidence (such as providing documentation of the required SAE visits) to show that candidates have sufficient knowledge and skills to meet this standard. Teacher candidates must understand the importance of SAE requirements on top of their regular teaching responsibilities in order for them to successfully facilitate supervised agricultural experience programs outside the classroom.

**Response:**

The comments in this section directly relate to standard 3, and the comments identified there. As in the previous standard and concern, the Agricultural Education Methods and Residency experience coursework

- EDSE 3278 – Subject Matter Specific Methods I: Secondary Agricultural Education
- EDSE 4278 – Subject Matter Specific Methods II: Secondary Agricultural Education
- EDSE 4500 – Residency in Teaching

all offer experiences and opportunities for pre-service teachers designed to satisfy the above concerns. Although time allocation prevents considerable detail, students are exposed to the theory, and have an opportunity to practice the principles in the field, during the EDSE 4500 Residency Experience. Opportunities to gain experience in Supervised Agricultural Experience (SAE) programs and FFA activities are available and required in EDSE 4500. The following description from the syllabus in EDSE 4500 includes specific assignments developed to meet those experiences.

**SAE Visits**
Make a minimum of 5 home and/or work site visits of students’ SAEs with your cooperating teacher. Observe the cooperating teacher’s supervisory techniques and interaction with the student and his/her family and/or employer. Record all SAE visits in the appropriate weekly report. Be certain to identify the type(s) of SAEs supervised and provide some brief comments about their general conditions and your recommendations.

Prepare a Career Development Event (CDE) Team
CDE team activities are an important part of FFA and a significant learning tool for agricultural education students. For this assignment, you are to prepare (or substantially assist in preparing) a CDE team to compete in an event above the local level. Consultation with your mentor teacher should result in a CDE area suitable for the program that you are a part of, and should be one that you are not proficient in. Discuss your plans regarding this assignment with your university supervisor during the first supervisory visit. A report (~one, type-written page) describing your experiences (including a photo or two, if available) should be included in your resource file.

FFA Activities
This will be an easy one. In your role as an FFA Advisor, you are to attend and supervise students at least three FFA activities above the local level. Appropriate activities could include state or national conventions, leadership conferences, CDEs, or other FFA activities. A record of the activities in which you participate should appear in your weekly reports.

In the previous statement, EDAG 3160 – Principles of Agricultural Education, which was eliminated prior to the Fall of 2011, included course theory specifically targeting these areas and PTSB concerns could feasibly be addressed with the continuation of this course in a more modern format.

b. Credentials of faculty

Dr. J. Chris Haynes Ph.D., Agricultural Education Communication and Leadership, Oklahoma State University

Gender – Male; Ethnicity – White Caucasian

Grants awarded to academic personnel: Previous 5 years

RESEARCH, GRANTSMANSHIP, AND EXTRAMURAL FUNDING EXPERIENCE

(2015) Proposal to the Ellbogen College of Education Dean’s Excellence grant for funding to upgrade the agricultural education “Ag Mech” program at the University of Wyoming to one targeting the Ideal Post-Secondary Applied STEM (Agricultural Mechanics) learning laboratory. Haynes, J. C., February 2015, (Requested funding; $90,000. Funded, March 2015).


Publications/presentations by academic personnel

**Peer–Reviewed Research Journal Articles**
* Awarded Journal of Agricultural Education Outstanding Article – Volume 56

**Papers in Progress** (Preparation for Submission)


**National/International Presentations and Papers – Refereed Proceedings**

**Research Conference Presentations**


**Poster Presentations**


* Awarded Distinguished Research Award


*Awarded Second Runner–up Innovative Idea Poster Presentation


**National/International awards**

**Awarded the Journal of Agricultural Education Outstanding Article – Volume 56** for the journal article “A Measure of Students' Motivation to Learn Science through Agricultural STEM Emphasis” at the 2016 *American Association for Agricultural Education (AAAE) Research Conference, May 17–20, 2016, Kansas City, MO.*

**Awarded the Distinguished Research Award** for the manuscript “Utilizing a Delphi study to establish the teaching resources needed for an ideal post-secondary applied STEM (agricultural mechanics) learning laboratory” at the 2015 *National Agricultural Mechanics Professional Development Blue Ribbon Poster Session, Oct. 28th, 2015, Louisville, KY.*

**Other**

**Awarded the University of Wyoming “Top Professor” award** by the University Cap and Gown Chapter of Mortar Board. Fall 2013.
Awarded the 2012-2014 Mary Garland Early Career Fellowship, ($20,000.00) for the research entitled “Self Efficacy of Agricultural Education and Science Education Pre-service Teacher Knowledge with Regard to Science, Technology, Engineering, and Mathematics (STEM)”. University of Wyoming, College of Education, 2012.

c. Program Reputation

Agricultural Education is well known for the quality of graduates that the program produces. While most of the graduates pursue educational opportunities on the secondary and post-secondary level, other career areas also exist for agricultural education majors. With a degree background that includes communications, leadership, and human relations all in the context of agriculture, our graduates are employed in every field imaginable, from government positions, to business and industry. Agricultural education majors are taught to become problem solvers, leaders, entrepreneurs, as well as agriculturists through a well-rounded education designed to prepare them for the future.

The University of Wyoming is the only degree granting institution in Wyoming for future teachers seeking certification in Agricultural Education. Constant inquiries exist for our graduates from states seeking teachers, not only in the Western region of the United States, but also in the central and eastern regions to fill vacancies in their states. The program has a reputation of providing not only qualified teachers in Wyoming and the United States, but also for providing professional development opportunities designed to serve agriculture teachers in the state and their students.

Every Fall, the University of Wyoming chapter of Alpha Tau Alpha, a National Professional Honorary Agricultural Education Organization for Agricultural Education majors, develops and hosts the “Cowboy Classic”. This invitational competition for secondary agriculture students includes Livestock Evaluation, Meats Evaluation, Agricultural Technology and Mechanical Systems, Prepared and Extemporaneous speaking, and Parliamentary Procedure, events all designed to develop leadership as well as social constructivist skills necessary for educational development. These competitions bring on average 250 – 300 potential future UW graduates to the community. Additionally, every spring, the Agricultural Education program additionally develops and hosts the state competition for the Agricultural Technology and Mechanical Systems event, which is the final competition to determine which schools will represent Wyoming at the National FFA event.

d. Curriculum of Major or Specialization

University of Wyoming Agricultural Education majors enter the program as Juniors upon completion of an associate’s degree from various Junior colleges across the state and nationally. Additionally, a number enroll at UW as Freshman, completing all of their educational requirements here. Students have an opportunity to complete the requirements for a Bachelor of Science in Agricultural Education with one of six different areas of concentration; Animal and Veterinary Science, Agricultural Business, Rangeland Ecology & Watershed management, Soil Science, Agroecology, and Ag Communication and Leadership. Additionally, students are afforded the opportunity to
add an endorsement in Secondary Biology Education with an additional 10 – 11 hours of coursework. Once completed the Agricultural Education Bachelor’s degree leads to certification to teach in the state of Wyoming by the Wyoming Professional Teaching Standards Board.

Courses specific to the major and specializations are as follows:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Professional Education Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDST</td>
<td>2450 Foundations of Development &amp; Learning</td>
<td>3</td>
</tr>
<tr>
<td>ITEC</td>
<td>2360 Teaching with Technology</td>
<td>3</td>
</tr>
<tr>
<td>EDST</td>
<td>2480 Diversity &amp; Politics of Schooling</td>
<td>4</td>
</tr>
<tr>
<td>EDEX</td>
<td>2484 Introduction to Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDST</td>
<td>3000 Teacher as Practitioner</td>
<td>6</td>
</tr>
<tr>
<td>EDST</td>
<td>3550 Educational Assessment</td>
<td>2</td>
</tr>
<tr>
<td>EDSE</td>
<td>3278 Agricultural Education Methods 1</td>
<td>3</td>
</tr>
<tr>
<td>EDSE</td>
<td>4278 Agricultural Education Methods 2</td>
<td>4</td>
</tr>
<tr>
<td>EDSE</td>
<td>4500 Residency in Teaching</td>
<td>15–16</td>
</tr>
<tr>
<td><strong>Ag &amp; Natural Resources Core Requirement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGEC</td>
<td>1010 or 1020 Principles of Macro Micro</td>
<td>3</td>
</tr>
<tr>
<td>AECL</td>
<td>1000 Agroecology</td>
<td>4</td>
</tr>
<tr>
<td>SOIL</td>
<td>2010 Intro to Soil Science</td>
<td>4</td>
</tr>
<tr>
<td>REWM</td>
<td>2000 Principles of Rangeland Management</td>
<td>3</td>
</tr>
<tr>
<td>ANSC</td>
<td>1010 Livestock Production</td>
<td>4</td>
</tr>
<tr>
<td>ANSC</td>
<td>2020 Feeds and Feeding</td>
<td>4</td>
</tr>
<tr>
<td>PLNT</td>
<td>2025 Horticultural Science</td>
<td>3</td>
</tr>
<tr>
<td>LIFE</td>
<td>1010 General Biology</td>
<td>4</td>
</tr>
<tr>
<td>LIFE</td>
<td>2022 or 2023 Animal Biology Plant Fungal Biology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM</td>
<td>1000 Intro to Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>LIFE</td>
<td>3400 General Ecology</td>
<td>3</td>
</tr>
<tr>
<td>EDAG</td>
<td>4170 Principles of Agricultural Mechanics Technology</td>
<td>3</td>
</tr>
<tr>
<td>EDAG</td>
<td>4180 Techniques of Agricultural Mechanics Technology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Areas of Concentration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Animal and Veterinary Science</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANSC</td>
<td>3100 Principles of Animal Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ANSC</td>
<td>3010 Comparative Anatomy/Physiology of Domestic Animals</td>
<td>4</td>
</tr>
</tbody>
</table>
### Principles of Meat Animal Evaluation

Choose one of the following

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 4120</td>
<td>Principles of Mammalian Reproduction</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 4540</td>
<td>Principles of Animal Breeding</td>
<td>3</td>
</tr>
<tr>
<td>FDSC 3060</td>
<td>Principles of Meat Science</td>
<td>3</td>
</tr>
<tr>
<td>PATB 4110</td>
<td>Diseases of Food Animals and Horses</td>
<td>3</td>
</tr>
</tbody>
</table>

### Upper Division Elective

3 credits

### Agricultural Business

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGEC 1010</td>
<td>Choose the additional economics course</td>
<td></td>
</tr>
<tr>
<td>AGEC 1020</td>
<td>Principles of Macro</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 4050</td>
<td>Agribusiness Marketing</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 4060</td>
<td>Agribusiness Management</td>
<td>3</td>
</tr>
</tbody>
</table>

### Upper Division AGEC Elective

3 credits

### Rangeland Ecology and Watershed Management

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REWM 2500</td>
<td>Rangeland Plant ID</td>
<td>2</td>
</tr>
<tr>
<td>REWM 3020</td>
<td>Nutritional Management Grazing Ungulates</td>
<td>3</td>
</tr>
<tr>
<td>REWM 4530</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>REWM 4700</td>
<td>Wildlife Watershed Management</td>
<td>3</td>
</tr>
</tbody>
</table>

### Upper Division REWM Elective

3 credits

### Soil Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOIL 4120</td>
<td>Genesis, Morphology, &amp; Class of Soils</td>
<td>3</td>
</tr>
<tr>
<td>SOIL 4150</td>
<td>Forest and Range Soils</td>
<td>3</td>
</tr>
<tr>
<td>SOIL 4160</td>
<td>Soil Fertility and Fertilizers</td>
<td>3</td>
</tr>
</tbody>
</table>

### Upper Division Soil Elective

3 credits

### Agroecology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AECL 2026</td>
<td>Horticultural Science Lab</td>
<td>1</td>
</tr>
<tr>
<td>AECL 3030</td>
<td>Ecology Web: Ecology of Plant Protection</td>
<td>3</td>
</tr>
</tbody>
</table>

### Upper Division ENTO/PLNT/SOIL Elective

4 credits

### Ag Communication and Leadership

3 credits
e. Distance delivery of program/major

Agricultural Education is an on-site program offered only at UW–Laramie.

f. Quality of Assessment Plan/data

Agricultural Education Program Assessment follows the process of all programs within the Wyoming Teacher Education Program (WTEP). All Secondary Education Department programs have Tier 1 status on UW assessment of student learning in the WTEP programs, student teaching evaluations, as well as common assessments to determine student abilities.

g. Strategic Plan: N/A

h. Other

Agricultural Education students at the University of Wyoming are actively involved with statewide activities in Wyoming, in support of the Wyoming State FFA Association. Every Fall, the University of Wyoming chapter of Alpha Tau Alpha, a National Professional Honorary Agricultural Education Organization for Agricultural Education majors, develops and hosts the “Cowboy Classic”. This invitational competition for secondary agriculture students includes Livestock Evaluation, Meats Evaluation, Agricultural Technology and Mechanical Systems, Prepared and Extemporaneous speaking, and Parliamentary Procedure, events all designed to develop leadership as well as social constructivist skills necessary for educational development. These competitions bring on average 250 – 300 potential future UW graduates to the community. Additionally, every spring, the Agricultural Education program additionally develops and hosts the state competition for the Agricultural Technology and Mechanical Systems.
event, which is the final competition to determine which schools will represent Wyoming at the National FFA event, as well as participate in the Wyoming State Agriscience Fair, serving as evaluators for the manuscript component of the competition.

3. **Mission Centrality: Does the program advance the mission of UW including institutional strategy?**

   a. Describe how the program supports the mission, vision and strategic goals of UW.

   The Agricultural Education program aligns well with the mission of the University in the respect to UW’s commitment to outreach and service. In addition to providing professional development to Wyoming teachers, and their students, future agriculture educators have the opportunity to put their learning into real life applications, better preparing them for a future in education. The University of Wyoming Agricultural Education program has a reputation for preparing future teachers not only for Wyoming, but for other states as well. The mission states there is an understanding that the greatest service is to provide the state and nation with teachers. This is also recognized as one of the mission’s guiding principles when it comes to serving the needs of the state. As a land grant institution, Agricultural Education is instrumental for our state and its students.

   b. Describe how the program contributes to other programs across campus (i.e., general education courses, minor or support courses, interdisciplinary program, etc.)

   The Agricultural education program contributes to other programs across campus, not only in the College of Education, where students take basic core educational classes required by the program plan (i.e., EDST2450 -Foundations of Development & Learning; ITEC 2360- Teaching with Technology; EDST 2480 – Diversity & Politics of Schooling; EDEX-2484 Introduction to Special Education; EDST 3000 – Teacher as Practitioner; and EDST 3550 –Educational Assessment, but also courses in other Colleges, where students have the opportunity to work towards a dual major in subject areas that contribute value to a teaching content area, such as Animal and Veterinary Science, Agricultural Business, Rangeland Ecology & Watershed management, Soil Science, Agroecology, and Ag Communication and Leadership among others.

   c. Include placement data for graduates and indicate if graduates are working in the field or not.

   The agricultural education program produces future educators that are sought for and employed not only in the state of Wyoming, but in other states as well. UW has produced agriculture educators that are currently teaching in Wyoming, Colorado, Nebraska, Idaho, South Dakota, and Georgia. Every year states seeking agriculture educators contact the University of Wyoming for graduates to teach in their state. From 2012 – 2016, the agricultural education program has produced 32 graduates, with 21 graduates (65.6%) actively teaching (59.3% Agricultural Education; .06% Other Subjects); four graduates (13%) enrolled in graduate school; two (.06%)
receiving commissions in the Military, with the intent of teaching upon completion of their commitment to the Military; and five graduates (16%) currently unknown.

d. Describe the uniqueness or duplication of this program across the UW.

The Agricultural Education program at the University of Wyoming is unique, in that it is the only AGED degree program in the state leading directly to teacher certification. The majority of students’ complete basics leading to the program from junior colleges in and out of the state, with a number enrolling in the program as Freshman at UW.

e. Other:

There are 57 agriculture educators in the state of Wyoming placed in 54 programs, which comprises 81.8% of the public (66) traditional schools, (i.e., those schools not classified as Carnegie, Alternative, or Private Schools) educating students at the 7-12 grade level. Of those 57 teachers identified, 37 (64.9%) received their pedagogical training in the University of Wyoming Agricultural Education program, providing an educational resource back to the state in which they were trained. In a state where tourism, agriculture, and energy extraction are the principal economic drivers, the contribution by the Agricultural Education program is considerable to the economy of Wyoming.

4. Cost: Is the program financially viable?
Dr. Haynes 2015-16 salary is $65,016. Benefits are not included in the calculations below. In 2015-16, Dr. Haynes taught the following four courses:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course #</th>
<th>Credits</th>
<th># of Students</th>
<th>Total student credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2015</td>
<td>EDSE 3278 – Subject Matter Specific Methods I: Secondary Agricultural Education</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>EDSE 4278 – Subject Matter Specific Methods II: Secondary Agricultural Education</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>EDAG 4180 – Techniques of Agricultural Mechanics and Technology</td>
<td>3</td>
<td>11</td>
<td>33</td>
</tr>
</tbody>
</table>
| Spring 2016    | EDSE 4500- Student Teaching Residency (Faculty act as supervisors for 10 students.  
• Students enroll for 15-16 credit hours.  
• The faculty receive 5 credit hours) | 5       | 10            | 50                         |
<table>
<thead>
<tr>
<th></th>
<th>credits in their teaching load for EDSE 4500.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Totals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>101</td>
</tr>
</tbody>
</table>

a. **Ratio of student credit hours per FTE**: 101 student credit hours: 1 Faculty

b. **Direct instructional expenditures**:
   i. **Per student credit hour**: $643.72 per student credit hour
      (In 2015-16, 101 credit hours were generated. Salary/credit hours)
   ii. **Per total degrees awarded**: $21,672 per degree
      (In 2015-16, three degrees were awarded. Salary/degrees)
   iii. **Non-personnel expenditures per total academic FTE**: UW, Laramie=
        $2500 annually to support program development and faculty professional travel.

c. **Course enrollment**
   i. **Number of classes falling under University minimums**
      Since Dr. Haynes has been at UW (2010) 23 out of 32 courses in Dr. Haynes’s teaching load fall below UW’s 10 students per course minimum. This ratio does include the EDCI 5250 course that is offered each fall semester for Agricultural Education post bac students, which is not expected to reach minimum enrollment numbers as it is cross listed with EDSE 3278 – Subject Matter Specific Methods I: Secondary Agricultural Education.
   ii. **Lower-division courses falling under University minimums**: 0
      (There are no 1000 or 2000 lower division undergraduate courses in this program.)

d. **Other instructional cost drivers, such as**:
   i. **Section fill rates**
      Only one section of Agricultural Education Courses is offered each semester.
   ii. **Course completion rates**
      Since Dr. Haynes’s tenure at UW, the Agricultural Education program has had a 100% completion rate.
   iii. **Curricular complexity**
      The courses in the Agricultural Education program are classroom and laboratory based. The courses incorporate knowledge and skills to prepare future Agricultural Education teachers in pedagogy as well as content specific to incorporating the three-circle model used in Agricultural Education nationally. The three-circle model includes:
      1. Classroom and laboratory instruction
      2. Experiential learning through supervised agricultural experience (SAE)
      3. Leadership (FFA)
iv. Faculty course load
There is only one faculty member in the Agricultural Education program. Dr. J. Chris Haynes teaches on average, 15 credit hours per year.

e. Research expenditures per tenured/tenure-track FTE (and other academic personnel, where appropriate)
Research expenditures provided by the department of Secondary Education amount to $2500.00 per academic year. This money contributes to faculty travel, participation, and presentations at National and International Research Conferences.

f. Compare your data to national benchmarks (Delaware data): N/A

g. Other: Currently enrolled numbers in the Ag. Ed. Major
   3 FRESHMEN
   2 JUNIORS
   14 SENIORS
Part II - Recommendations

Instructions: After the review is completed, the Dean in consultation with the Department Head will select one of the following recommendations. In the justification, address each of the items associated with the recommendation.

1) Retain Due to Critical Need
   a) A college may recommend that a degree program be retained due to its ability to fulfill a critical workforce need or shortage area for the state.
   b) Justification for retaining due to critical need must include:
      i) Explanation of why the program is important to the University/State/region
         The Ag Ed program is instrumental to UW’s land grant mission. As one of a few programs in the region, UW provides many of the agriculture education teachers in the state of Wyoming and in surrounding states. Currently over 65% of the agriculture educators in the state are UW graduates and other states nearby look to UW to provide a portion of their Ag Ed program graduates as well.
      ii) Description of specific steps (already taken and/or planned) to increase enrollment and graduate production;
         (a) The College of Education will work with the College of Agriculture and Natural Resources to reinstate a concurrent major in an Agriculture field for our Agriculture Education majors. With the option of a concurrent major, more students may enroll.
         (b) We will design a recruitment plan to increase enrollment.
         (c) Dr. Haynes will investigate working with the UW Agriculture Extension offices.
         (d) Secondary Education will develop 2+2 articulation agreements with Wyoming’s Community Colleges for the Agriculture Education Major.
         (e) Consider employing a cohort model of program delivery with an every other year admissions approach that could decrease the numbers of courses in the program that fail to meet minimum student enrollment thresholds.
      iii) Preliminary outcomes of steps taken.
         None to report at this time.
APPENDIX A

“Low Productivity” Programs Excluded from Review Process

1) **Major Program Modifications**
   a) Degree programs that have undergone recent program modifications that adversely impact graduate production for a college.
   b) Modifications traditionally include programs that have undergone recent name changes during the reporting window that result in two equivalent degree programs.

2) **Program/Major Specializations**
   a) Degree programs that have one or more specializations which reduce the total number of graduates.
   b) The exclusion may apply only for those specializations where the combination results in graduate production that meets the establish threshold for the degree.

3) **Terminated Programs**
   a) Degree programs that have been inactivated during the reporting period, but still depict graduates that fall below the established thresholds.
   b) Terminated programs will remain on the Program Productivity Report until inactive programs have completely cycled through the established reporting period.

4) **New Programs**
   a) Degree programs that have been activated within the past 7 years resulting in limited graduate production due to program implementation.
   b) Institutional review may be requested prior to the 7th year if graduate production is not scaling to the required thresholds for the degree level.