

## **Proposal to Eliminate Academic Program** **Pursuant to UW Regulation 6-43** **BS Secondary Education: Technical Education**

### **Statement of the reasons for elimination of the program:**

The Technical Education program at UW-C is dependent upon a single faculty member and is delivered in a two-year cohort cycle. The program fails to attract strong student enrollments. The Technical Education program is a rebranding of what was called years ago nationally - Industrial Arts Education. Students acquire a wide variety of vocational skills and knowledge in this program that are transferrable not only to classroom teaching but also technical career and industrial applications. Currently, 17 of the 21 or approximately 81% of graduates in the last five years are teaching in schools.

The Technical Education program aligns well with the University's outreach and service mission. This program is unique because it is offered onsite at the UW-Casper campus. It partners with Casper College that provides lower level specialized course requirements that lead to both an associate and a bachelor's degree. The cost of maintaining a Technical Education program or any Career Technical Education (CTE) centered program away from the facilities of a community college structure is cost prohibitive because of the amount of consumables, equipment, and maintenance required to provide the many diverse lab and hands-on opportunities necessary. As a result, the direct instructional costs of this program are nearly double that of the average degree instructional cost in the College of Education. Of equal concern is the fact that the Technical Education course enrollments frequently fall below course enrollment minimums ( $N=10$ ). It is also a concern that this degree program has not generated sufficient enrollments in the past and will not do so likely in the future to justify a 21-24 credit per year teaching load standard for the single Academic Professional Lecturer.

Taken together, these data argue that a low demand for the technical education program at UWC is likely to continue. Many university teacher education programs have eliminated the industrial arts education degree program. Others have attempted, as we have, to rebrand this degree and modernize it. Still other universities have re-envisioned with the help of the K-12 community to offer an engineering technology education degree in conjunction with colleges of education and engineering.

Furthermore, the state of Wyoming has an alternative route for providing CTE educational courses in Wyoming high schools. Individuals who have taken necessary coursework and have industrial or other career related experience and expertise in CTE fields might be employed to teach under a *Trade and Technical Profession Industry Career permit*. Consequently, after serious deliberation, it is recommended that the Technical Education degree program be eliminated due to

persistent low productivity. As difficult as this decision is, it has been one that has been decided at many of UW's peer and aspirational institutions.

**Description of the program and relevant data:**

**Describe the mission, curriculum, content and format of the program:**

The technical specialization area includes study in the areas of welding, manufacturing, construction, woodworking, drafting and computer-aided design, graphic design, electronics, and energy and power technology. In addition, students select from one or more areas of concentration depending upon their interest. These concentrations provide for more focused study in the areas of automotive, multi-media communications, drafting, electronics, machining, welding or woodworking.

Technical education is becoming more important for everyone to understand new technologies because of our increasingly technology-based society. It influences our work, the products that we use, even our recreational activities. It needs to be studied so everyone can understand it, use technological products wisely, and help shape the future direction of our society. As a technical educator, students will gain a broad understanding of technological systems in the areas of communication, manufacturing, construction, transportation, power and energy; develop knowledge and skill in working with technological tools and processes in each of the above activity areas; and learn how to turn knowledge of industrial and technical systems into engaging curriculum for the classroom.

Technical Education is a Bachelor's Degree program only and is offered on a two-year cohort cycle.

UW-Casper Technical Education students enter the program as juniors who have completed an associate's degree from Casper College. The Associate's degree in Technical Education includes specialized areas of concentration in the areas of Automotive, Communication, Drafting, Electronic, Manufacturing, Welding and Woodworking. These areas align with high- need skills throughout our region. Once at UW-Casper, the students complete the following laboratory based courses in a two-year rotation (listed below). Once completed the Technical Education Bachelor's degree leads to certification to teach in the state of Wyoming by the Wyoming Professional Teaching Standards Board.

YEAR ONE: Fall courses in even years:

EDSE 3010 Contemporary Philosophies of Technical Education (3 credits)  
EDSE 3030 Construction Technology (3)  
EDSE 3610 Manufacturing Technology (4)

YEAR ONE: Spring courses in odd years:

EDSE 3040 Energy and Power Technology (3)  
EDSE 3050 Communications Technology (3)

YEAR TWO: Fall courses in odd years:

EDSE 3020 Facilities and Advisory Management  
(3) EDSE 3277 Technical Education Methods I  
(3) EDSE 4277 Technical Education Methods II  
(4)

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YEAR TWO: Spring Student Teaching

Residency in even years: EDSE 4500  
Residency in Teaching (15)

Changes to the Program: In Fall 2013 the program shifted to create the two- year rotation listed above to implement a cohort model. This shift happened to increase enrollment. In Fall 2016, the program will begin additional curriculum changes that will affect the lower level courses provided in the Associate's Degree delivered at Casper College. In an attempt to keep up with technological changes and to provide the students with the best program while making the credit hours achievable, Casper College instructors, division and academic deans have met to approve a newly formatted Technical Education Associate's Degree for students completing that degree in conjunction with the UW-C Technical Education Bachelor's Degree.

**Describe the role of the program within the context of the college and the mission of the University:**

The Technical Education students are actively involved with local, regional and national association activities. As part of the national Technology Education Engineering Collegiate Association (TEECA), students compete regionally and nationally. Mr. Thompson had national champions in competitions such as Teaching a Lesson, and Technology Challenge (quiz bowl type competition) as well as national student officers representing national TEECA. Locally, UW-C TEECA, is a recognized student organization at Casper College, hosts a Technology Student Association (TSA) Day at the college. Over 150 middle school students attend a one- day professional development and competition day each spring. Students also, as part of a community service expectation, spend time in Title I elementary schools within Natrona County completing STEM activities.

The Technical Education program aligns well with the mission of the University in the respect to UW's commitment to outreach and service. Having a location in

Casper, UW extends its capacity to serve more students in all communities throughout the state and provides a university presence away from Laramie.

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.

The program being housed in Casper does not have an impact on programs across the Laramie campus. The students though are served by other UW College of Education faculty housed in Casper so the Technical Education student numbers do affect the course enrollments in EDST 3000 and EDST 3550, both courses taught onsite at the UW-C campus.

### **Financial data relevant to the academic program:**

Ratio of student credit hours per FTE: **132 student credit hours: 1 faculty**

Direct instructional expenditures:

- i. **Per student credit hour: \$ 514.45** per student credit hour
- ii. **Per total degrees awarded: \$16,977** per degree  
(In 2013-14, four degrees were awarded. In 2015-16, four degrees are anticipated to be awarded.)
- iii. **Non-personnel expenditures per total academic FTE: UW, Laramie= \$0**  
**UW, Casper=\$0.** (UW-C receives \$11,700/year from the Natrona County BOCES board to support the Technical Education program for course supplies, instructor ~~and student and student~~ travel, promotional items, etc.)

Course enrollment

- i. Number of classes falling under university minimums.  
Fall 2010- Spring 2016: **21 out of 40** courses in Mr. Thompson's teaching load fall below UW's 10 students per course minimum.
- ii. Lower-division courses falling under university minimums: **0**  
(There are no 1000 or 2000 lower division undergraduate courses in this program.)

Other instructional cost drivers, such as:

- i. Section fill rates: Only one section of each Technical Education course is offered per semester.
- ii. Course completion rates: 90-100% completion rate depending on the cohort.
- iii. Curricular complexity: All of the courses in the Technical Education program are laboratory based. The courses incorporate knowledge

- and skills to prepare future Technical Education teachers.
- iv. Faculty course load: Only one faculty in program. As an APL, Mr. Thompson teaches on average 17 credit hours per year.

Research expenditures per tenured/tenure-track FTE (and other academic personnel, where appropriate): \$0

**Admission, enrollment and graduation data relevant to the program, including the number of students currently enrolled and the status of their progress toward graduation:**

Below is a list of the graduates from the previous four Technical Education cohort cycles. Some cycles, because of the need to complete lower level content, a student will take a class after residency in order to complete the needed content for program completion.

2016 4 graduates (anticipated)  
2014 4 graduates  
2012 10 graduates  
2010 7 graduates  
2008 5 graduates

Majors	2011	2012	2013	2014	2015
Technical Education	10	8	6	7	7

**Describe the administration of the program:**

The Secondary Education Technical Education option is administered by the Department of Secondary Education in the College of Education, Department Head Kate Muir Welsh.

**Describe the faculty and academic professionals who serve in the program, including their academic credentials, academic rank and length of service to the University:**

Mr. Rodrick Thompson, M.A. Education, University of Northern Iowa,  
Academic Professional Lecturer, Appointed 2005

**Describe the program facilities, including classrooms and offices, library and equipment used by or dedicated to the program:**

Faculty offices: 116B Gateway Building, UWC

Design Studio, Robotics Lab, and metal fabrication, wood working, auto body and mechanics shops, welding laboratories, CAD design programs, printers, classrooms, other technology facilities located at Casper College / UW-Casper.

Multiple consumables, equipment, and maintenance required to provide the many diverse lab and hands-on opportunities necessary to support this degree program

**Evaluations from accrediting bodies or other reviewers of the quality of the program and its faculty and academic professionals:**

Program accreditation

1. Wyoming Professional Teaching Standards Board (PTSB) is the agency responsible for licensure and endorsement of the Technical Education graduates.
2. The most recent PTSB accreditation was completed and approved in September 2013.
3. The program will follow the accreditation cycle of the College of Education national accreditation which will occur again in seven years (2023).
4. While completing the most recent program accreditation process in 2013 by the PTSB, there were two concerns raised, addressed and discussed. When final accreditation occurred, there were no outstanding recommendation or conditions. The following were the concerns and the written responses to the PTSB board.

Concern 1). Use maintenance and assessment of products and systems utilized in trade and technical education, including safety. *In response to the first concern, a course titled EDSE 3020 Facilities and Advisory Management was further explained. In this course, students work with an advisory committee as well as classroom teachers from both junior and senior high schools.*

*Students complete a safety observation of the classrooms and labs and then visit with the classroom teachers about suggestions and questions they have about the layout. Students also participate in maintenance and minor repairs expected from a classroom teacher. They are provided the opportunity to exchange welding tanks, test the gauges, and replace saw blades and cutter heads. Students have the opportunity to work alongside classroom teachers to perform the tasks required on a daily basis of a full time teacher. Once the PTSB heard more about what was in place, they felt that the concerns they had were actually met in the program course.*

Concern 2). Knowledge of various trade and technical systems including but not limited to: (A) medical biotechnologies, (B) agriculture, (C) energy and power, (D) information and communication, (E) transportation, (F) manufacturing, (G) construction, (H) technical and graphic design, animation and (I) technological systems.

*In response to the second concern, students are provided many opportunities to be ready for positions within the region. Placing resident students in situations where they are only working in one area such as welding or woods does not provide a well-rounded opportunity. Students need to be aware of as many teaching strategies as possible and need to be well-rounded and capable at a beginning level to teach any area deemed to be Technical Education. Students who have had residency in locations such as Buffalo and Wright as well as those who have been placed in Casper are very comfortable with not only teaching multiple classes but also find comfort in teaching multiple classes within a single block of time. Though they felt the program's rationale was strong enough to satisfy their needs. Mr. Thompson finds it difficult with the credit hour mandates to be able to prepare students for all of the areas PTSB felt were needed.*

Grants Awarded: As a part of EDSE 3020 Facilities and Advisory Management course, students write and apply for grants. They do this in conjunction with their residency placement mentor so that the equipment can be housed in the schools and used by the mentors once the resident student has completed and graduated from the Technical Education Program. Grant applications are submitted to the Natrona County Board of Cooperative Educational Services (BOCES) primarily because of its willingness to allow students to appear and discuss the grant face-to-face with their entire board. In the past five years, following are some of the grants that have been awarded:

2016

Mark Forge 3-D printer and 3-D doodle pens \$13,000. (Equipment is at Frontier Middle School.)

2015

CNC Plasma CAM \$17,000 (Equipment is housed and maintained in the Robotics Lab at Casper College.)

2013

Sawstop table saw \$4,000 (Equipment is in the Design Studio at Casper College.) 2011  
CNC wood E Z Router with Enroute software \$35,000 (Equipment and software is at Natrona County High School, Casper.)

2011

Pneumatic bend tester for welding tests. \$3,500 (Equipment is housed at Kelly Walsh High School, Casper.)

2011

Laguna re-saw Band saw \$6,000 (Equipment is housed and maintained at Kelly Walsh High School, Casper.)

Grants submitted by Mr. Thompson: Applied for University of Wyoming Math and Science Partnership grant in each of the following years (2011, 2012, 2013). Grants were not funded.

Presentations: Presented every summer at the Wyoming Association for Career and Technical Education in the Technology Education division meetings.

National/International Awards: In 2014, Mr. Thompson was recognized as a Distinguished Technology Educator (DTE) by the International Technology Engineering Educators' Association (ITEEA)

### **Comparison of the program with related or similar programs:**

There are few Technical Education programs nationally, especially in the western United States. There are constant inquiries for the graduates of the program from administrators and human resources personnel desperately searching for qualified Technical Education graduates for the openings within their respective school districts. Locally, Natrona County School District #1 is opening a Pathways Innovation Center, where students from area high schools travel to a separate district complex to attend a high-end pathway capstone courses in a concentrated area of study. Of the three teachers selected to be the capstone instructors in the technical areas of the Architecture, Construction, Manufacturing and Engineering (ACME) Pathway, all are former graduates of the UW-Casper Technical Education Degree.

The UW-C Technical Education program and students are recognized around the nation. Students participate in regional competitions in both Colorado at the Colorado Technology Educators Association annual conference and Missouri at the International STEM Educator's Conference as well as national competitions. Students consistently place in the top three places in regional and national competitions. The competitions that the UW-Casper students compete are the Quiz Bowl which is a Jeopardy-style challenge where schools face off in live competition in teams of four. The questions are technology and engineering-based as well as pedagogy. The UW-Casper team is consistently in the top of the competing teams. Another competition that UW-Casper students excel is in Teaching a Lesson competition. UW-Casper TEECA has had a competitor place first or second for the past three years and third in the past five years. UW-Casper TEECA typically places within the top five in the Problem Solving Challenge. These are competitions that are sponsored and held at both the regional and national completion sites. Only the Teaching a Lesson Challenge has a pre-conference qualification activity. The other challenges are open to each student chapter that is attending the conference.



**Describe the anticipated effects of elimination of the program upon the college in which the program is situated, upon other colleges and units of the University, and upon the University as a whole, including:**

**Effects upon students enrolled in the academic program:**

This would close a program that has been poorly enrolled with an average of 2.5 graduates per year for the past five years. Alternative PIC teaching permits allow schools to locate and employ professionals who are employed in industry to teach the classes typically taught by graduates in this program. The APL in this program would be granted a final year of employment to teach out the students currently enrolled in this program.

**Effects upon faculty and academic professionals who serve in the program, including termination of any existing positions:**

The APL in this program may be terminated – see below section titled “Plans for accommodating faculty and academic professionals who will be terminated or otherwise affected by elimination of the academic program”

**Educational and financial effects upon other units of the University:**

The university would realize costs savings from the closure of this program that could be targeted strategically to more productive educational programs to meet the emerging needs of the schools in the state of Wyoming.

**Effects upon faculty, academic professionals, staff, students and alumni of the University:**

The program is unique, and provides a service to the state by providing credentialed technical educators to junior and high schools, 6<sup>th</sup>-12<sup>th</sup> grade. Thus, it is important for discussions to continue within UW between colleges, for example Education and Engineering and Applied Sciences, to decide upon future potential programmatic additions that could help to provide this service going forward.

**Effects on the State of Wyoming, including loss of benefits conferred outside the University by the academic program:**

It should be noted that eliminating this degree program would effectively eliminate in a key vocational education program in the K-12 schools at a time when Wyoming is trying to diversify its economy. On the other hand, the state’s professional licensing board, PTSB, has provided an alternative route for schools to meet the specific teaching needs associated with technology education through the use of PIC Permit.

**Implementation plan to be followed in the event the academic program is eliminated, including:**

**Procedures for handling current and future applications for admission:**

Students are admitted every two years into a cohort program. No new students will be admitted. Current students in the cohort would be taught out to complete their degree programs causing minimal disruption to student plans.

**Plans for assisting currently enrolled students to complete the course of study:**

Current students in the cohort would be taught out to complete their degree programs causing minimal disruption to student plans.

**Plans for accommodating faculty and academic professionals who will be terminated or otherwise affected by elimination of the academic program:**

Per UW Regulation 6-43, the University shall offer the tenured faculty member or extended term academic professional another appropriate position in the University if the person is qualified and the position is available before the date of the termination of the person's position. In the allocation of appropriate positions, positions shall first be offered to tenured faculty and extended term academic professionals who are being terminated before offers are made to probationary faculty and academic professionals or other persons not currently employed by the University.

If no appropriate University position is available for which the person is qualified, the University shall continue the position of the tenured faculty member or extended term academic professional for at least the next full academic year after the date of the termination of the person's position. The continued position may be assigned appropriate duties consistent with the best interests of the University.

The University shall offer the probationary faculty member or probationary academic professional another appropriate position in the University if the person is qualified and the position is available before the date of the termination of the person's position. In the allocation of appropriate positions in the University positions shall first be offered to probationary faculty and probationary academic professionals before offers are made to persons not currently employed by the University.

If no appropriate University position is available for which the person is qualified, the University shall continue the position of the probationary faculty member or probationary academic professional who is in at least the third year of service on the date of the termination of the person's position for at least the next full academic year after that date. However, for a probationary faculty member or probationary academic professional in

Proposal to Eliminate Academic Program  
Pursuant to UW Regulation 6-43

the second year of service, the position shall be continued for at least six months. For a probationary faculty member or probationary academic professional in the first year of service, the position shall be continued for at least six months. The continued position may be assigned appropriate duties consistent with the best interests of the University.

A faculty member or academic professional who receives notice of termination because of elimination of an academic program shall have the right to appeal the termination under UW Regulation 5-35, Appendix B, but not the decision to eliminate the program, unless the decision is based in whole or in part on financial exigency under UW Regulation 6-41.



College of Education  
Office of the Dean  
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(307) 766-3145 • fax: (307) 766-6668

December 22, 2016

MEMORANDUM

TO: Kate Miller, Provost/VPAA

FROM: D. Ray Reutzler, Dean

RE: Program Review for the Bachelor of Science (B.S.) Degree in Technical Education,  
Secondary Education: Dean's Response, 1<sup>st</sup> comment period

**Solicitation of Input**

We sought input from students, faculty, staff, and external audiences in the P-12 community. Our first effort was for the Dean to present the recommendation to eliminate the Secondary Education program in Technical Education to the membership of the *Wyoming Professional Teaching Standards Board* (PTSB) on October 10, 2016. In addition to this group, the Dean presented this information to the *Wyoming School-University Partnership* members in Casper on November 3, 2016. These organizations were judged to be key to approval of and input about our educator preparation programs. The Dean also provided a written explanation of this recommendation to the *Wyoming School Boards Association*, which was read aloud at the most recent meeting of the Delegates Assembly by local School Board Chair, Janice Marshall (Email dated 11.7.16).

We also established a Dean's Office email address to receive input from any interested individual or group internal or external to the College or University. This email address was distributed through the Office of Teacher Education to the student body and to our faculty through an email announcement from the Dean's Office in October 2016

As Dean I have met personally with the affected program students via Zoom and in person with the affected faculty member, Rod Thompson, as well as with the Head of the Department of Secondary Education to discuss this recommendation. In addition, we advertised to faculty, staff, and students open town hall meetings held in the College of Education in regard to this program on November 2, 2016 to receive additional input.

**Summarization of Input**

At the Dean's Presentation to the *Wyoming PTSB*, Superintendent John Lyttle of Laramie County School District #1 vigorously resisted the elimination of any secondary education programs citing his district's need for technical educators. Similarly school superintendents at the *Wyoming School-University Partnership* meeting in Casper were

less vigorous but questions were asked and explanations given. The Dean has not heard any further comments from the superintendents in attendance. The *Wyoming School Boards Association* had planned to pass a resolution against this program elimination in Secondary Education but after hearing the Dean's explanation read aloud at the Delegate's Assembly determined not to do so.

In a meeting of the faculty and students regarding the recommendation to eliminate the technical education secondary education program, students (4) expressed concerns about being able to complete the program and their desire for the program to continue via a Zoom connection to UWC. Mr. Thompson, the single APL assigned to this program, expressed similar sentiments both publically and privately to the Dean. There were other questions from the faculty, but particularly from Dr. Kate M. Welsh, Head of the Department of Secondary Education.

There were 3 responses expressing concern about the recommendation to eliminate the secondary technical education program to the Dean's Office Email Address. These were sent to the Provost's website after the 1<sup>st</sup> Comment Period closed on December 16<sup>th</sup>, 2016.

The Dean also received four letters from high school students in the Gillette area when the Dean was traveling with the President during her last statewide Listening Session in Gillette and Sheridan. These letters have been forwarded to the Office of Academic Affairs. A local high school teacher stood at this meeting to voice opposition to the recommendation to eliminate the technical education program.

December 16, 2016 I received a copy of the Departmental response to the recommendation to eliminate the technical education program in secondary education by Dr. Kate M. Welsh, Department Head. This letter expressed opposition to the recommendation to eliminate technical education by making the following salient points:

- Technical education is unique to this region
- Technical education important in Wyoming high schools for all students
- Program students and faculty contribute hours of service to the Natrona County School as well as to national organizations.

### **Response to Input**

Although everyone acknowledges the low student enrollments in this program for many years, mean = 2.5 students enrolled annually, there nonetheless exists a strong sentiment that the secondary technical education program should be maintained as expressed by select school leadership personnel, UW secondary education faculty, high school teachers, and high school students. In an era of extreme financial crisis and massive budget reductions, low enrollment programs become very difficult to defend. The cost of a single graduate, \$44,000.00 in the technical education program, vastly exceeds the college's average direct instructional cost of approximately \$7,500.00 per degree program graduate.

School personnel admit they hire many of their technical education teachers from out of state, as our program does not service the existing need. They assert that technical education teachers are similarly difficult to recruit nationwide. This should come as no surprise because enrollments in university programs in technical education have been declining for more than two decades and many universities have already eliminated technical or industrial education programs (*The Current Status and Future of Industrial Teacher Education and Non-Teacher Education Programs in Institutions of Higher Education*, Pucel & Flister, 1997, Sobolowski, 2003).

The assertion that these programs are unique to this region is inaccurate. Technical education programs are found at a variety of 4 year, land grant, and research universities across the nation. But there is no denying that these programs and student enrollments in these programs have been on the decrease nationally for many years at all of these types of institutions and across all regions of the nation (*The Current Status and Future of Industrial Teacher Education and Non-Teacher Education Programs in Institutions of Higher Education*, Pucel & Flister, 1997, Sobolowski, 2003).

Increasingly technical education programs have been allocated to Career and Technical Education (CTE) associate degree programs located at two-year community and junior colleges in order to meet industry's needs. Programs in technical teacher education have been and are being replaced at many of our comparison and aspirational universities (CSU, Utah State University, Texas A&M) by four year degree programs in engineering technology education emphasizing 21<sup>st</sup> century engineering and technology skills over the typical electrical, welding, drafting, woodworking skills found in typical technical education four year degree programs. Enrollments in these 21<sup>st</sup> Century engineering technology education programs boast robust enrollments at our comparator institutions.

The assertion that all students need or want courses in technical education is also an over generalization. Not all students, even if technical education courses are available in high schools, elect to take them. Many of the technical education program's curriculum and skill elements are duplicated by similar courses and skills in Agricultural Education, which we have at UW and will be maintaining. In fact, at one time we considered merging the two programs into a single agricultural and technology science degree program but could not make the logistics and locational laboratory access work for all students.

Furthermore, the Wyoming PTSB provides an alternative route for many CTE courses to be taught in high schools by skilled professionals in the field who obtain a PIC (Professional, Industry, Career) teaching permit. Consequently, the loss of 2.5 graduates per year, not all of whom wind up choosing to teach or teach in Wyoming with their degrees but who also enter industry, does not seem to represent a critical mass of teacher production that if eliminated would cripple the state's ability to recruit an adequate teaching force to continue to support for teaching the remaining technical education courses in high schools.

The fact that the few currently enrolled students in the technical education program provide service to the local community, although commendable, a similar assertion related to community service could be expressed about almost any education degree major in the university. Consequently, the relevance of this claim to the program elimination decision-making process seems tangential at best.

Wyoming, in this budget crisis, must tighten its belt financially. We cannot provide every conceivable degree program to the state. It is far too expensive. Furthermore, technical education programs have been closing and student enrollments declining nationwide at university campuses for more than two decades. This reflects a waning relevance and interest in these programs, including Wyoming. If the interest and demands of students in Wyoming were apparent, enrollments wouldn't be persistently low in the technical education program at UW.

In addition, technical education programs, if retained, have been experiencing significant modifications, developing 21<sup>st</sup> skill sets in engineering and technology. Agricultural Education programs and CTE programs at 2-year colleges have largely assumed the 20th century industrial skill sets found in most current 4-year technical education programs. It is time that Wyoming recognizes the need for a similar type of 4-year degree program update to better serve the needs for economic diversification in the state of Wyoming.

#### **Dean's Recommendation at Conclusion of 1<sup>st</sup> Comment Period**

**It remains the recommendation of the Dean that the B. S. in Secondary Technical Education be discontinued. As described above, the Deans of Engineering and Education have been in discussion about proposing, when economic conditions warrant, an updated 4 year degree program in engineering technology education.**

Sincerely,



D. Ray Reutzel, Ph.D.  
Dean

## **Anne M. Alexander**

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**From:** Kate Muir Welsh  
**Sent:** Friday, December 16, 2016 5:16 PM  
**To:** Program Review - Academic Affairs Office  
**Cc:** Douglas Ray Reutzler  
**Subject:** Department Head Comments on Technical Education Academic Program Review  
**Attachments:** PastedGraphic-1.tiff; 2014-15 Perkins State Report-Secondary1.pdf

Dear Provost Miller:

As Secondary Education department head, I write this email to oppose the elimination of the Secondary Education Technical Education Program. I've copied the College of Education Dean. My reasons to oppose the elimination are few but important. Technical Education is a small but mighty program.

### **Reason 1. TECHNICAL EDUCATION IS UNIQUE TO THIS REGION**

1a. The program is unique in this region. If it is eliminated virtually no Technical Education teachers will be produced for this region.

1b. The program is one of only a few strong community college - UW partnerships which is unique.

1c. President Nichols mentioned at the College of Education meet and greet session, that while traveling the state many constituents have mentioned that the state needs a strong and successful Technical Education program.

### **Reason 2. TECHNICAL EDUCATION IS IMPORTANT IN WY HIGH SCHOOLS FOR ALL STUDENTS**

Technical Education is a field of study that is accessible to many types of students. It can provide a refuge for traditionally unsuccessful students.

Below are some summary statements from the Carl Perkins IV State Report (attached). This report presents data collected during the 2014-15 school year.

Carl Perkins IV State Report STATEMENT #1: During the 2014-2015 school year, it was reported that 8,724 (55.0%) males and 7,128 (45.0%) females were CTE participants, for a total of 15,852 [WY] participants. (p. 12)

Carl Perkins IV State Report STATEMENT #2: Most CTE participants in a special population were categorized as non-traditional enrollees (22.2% of all participants) (p. 13)

Carl Perkins IV State Report STATEMENT #3

96.80 % of CTE concentrators earned a regular secondary school diploma, earned a General Education Development (GED) credential as a State-recognized equivalent to a regular high school diploma (if offered by the State) or other State-recognized equivalent (including recognized alternative standards for individuals with disabilities), or earned a proficiency credential, certificate, or degree, in conjunction with a secondary school diploma (if offered by the State) in 2014-15 (p. 14).

**Reason 3. PROGRAM STUDENTS AND FACULTY (ROD THOMPSON) contribute hours of service to Natrona County Schools as well as to national organizations.**



Rod is committed to training future teachers that are dedicated to their field and their communities. They complete service projects with schools and other organizations. They represent UW-Casper and by default UW-Laramie.

The Secondary Education Department Office did not receive any statements regarding the elimination during the comment period. We had a binder with information (program reviews and correspondence) about the three Secondary Education programs recommended for elimination. It was be available in our office 114 McWhinnie Hall for approximately two months. Also in the binder were directions for how to provide comments and feedback on the program elimination proposals.

In closing, I want to reiterate that Technical Education is a small but mighty program. I oppose its elimination and encourage the University to expand recruitment and increase its support for this important program.

Thank you for your time,

Kate



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125 College Dr., Casper, WY 82601  
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[www.uwyo.edu/outreach/uwcasper](http://www.uwyo.edu/outreach/uwcasper)

Dr. Kate Miller  
Provost and Vice President of Academic Affairs  
Office of Academic Affairs  
1000 E. University Ave  
Dept. 3302  
Laramie, WY 82071

November 3, 2016

Dear Dr. Miller:

It was a privilege to meet you and visit with you while you attended the University of Wyoming at Casper 40<sup>th</sup> anniversary celebration. The attendance by so many of the main campus administrators at this function shows the support for the university's reach into the state and the university's impact on Wyoming beyond that of the 40 years of support they have been providing at UW-C.

The conversation we shared after introductions revolved around the Technical Education program and the College of Education's recommendation for its elimination. This communication is a continuation of that conversation with a focus primarily on the memorandum sent out by Dean Reutzel on September 13, 2016 that addresses his rationale for the elimination recommendation.

In the Dean Reutzel memorandum, he identifies multiple points of reference to establish the short comings of the Technical Education Degree in which I am the sole university instructor.

Reference 1). I am in no way contesting the low enrollment statements within this memorandum. The program, when it was moved to Casper 15 years ago, had low enrollment numbers. Each cohort cycle of students since its inception has been low enrollment as well. I was a little shocked to find out that without any guided efforts from the college or university, the program would be slated for elimination in such a short fashion without efforts to grow other areas of Career Technical education outside of its main campus. I understand the process however and do recognize the low enrollment cost to the university.

Reference 2). I am contesting that the instructional cost and statements made in the memorandum to be false and mis-leading to those that are taking the time to read Dean Reutzel's memorandum and make decisions about the program's future. The Technical Education program was moved to Casper because of the cost of maintaining equipment and rising consumable cost for the processes involved in the program. The Memorandum of Understanding in place with Casper College alleviates the instructional costs because

the University is not paying for the instructors who are industry certified, either as engineers or content specific certifications such as ASE and AWS who teach the university students at a level greater than any one instructor at a university would be capable of and in alignment with industry standards and industry contacts upon leaving the program. So for those decision makers to see that the instructional cost is double the cost of the average degree in the college the way it is arranged is not truthful.

Reference 3). It is a stretch to say that there is a solid alternative licensure option in place in Wyoming. Of the 284 Trade and Technical license holders in the state of Wyoming, 47 hold a PIC permit. They are only designated in conjunction with someone who not only has industry experience but also an endorsement related to the content in which they are teaching. These instructors are limited as to what they can teach and restricts the flexibility of a school to incorporate the PIC permit holders into an evolving area of study, especially with many schools now utilizing programming and robotics type courses to expand the offerings to their students.

The information contained in the Memorandum. The identifiers used within the letter do not tell the story of low enrollment. The letter tells the story of what other universities have done in situations where instructional costs became a significant issue. This situation is not correct and is wrong to be based on the facilities because of the agreement in place with Casper College. I am not sure why in the Technical Education recommendation it would be stated about the university's inability, as well as Casper College's inability, to provide facilities for an agriculture education program. The facilities at Casper and the instructors that impact the students in Technical Education are highly certified and the facilities are second to none in the region. The statements made throughout the memorandum lend themselves to saying there are prohibitive instructional costs in alignment with facilities. This is not true. It identifies alternative licensure options that are weak and limit a teacher's ability to teach any content in the Technical Trades.

I am hopeful that somehow the Technical Education degree is found to be vital to the University of Wyoming's mission. I am confident that CTE could be expanded at Casper and positively impact my teaching numbers as well as the image of the university in a positive light in servicing needs throughout the state. However, I feel the current Dean is not fully aware of the need of this type of program in the Wyoming and therefore has not made attempts to look at the possibility of dedicating time to expanding the CTE options away from UW Laramie nor has he considered that as we move forward with STEM education initiative that our Trades and Technical teachers are the T and E of STEM.

Professionally,



Rod Thompson  
UW-C Technical Education  
rodt@uwyo.edu  
307-268-2406

**Subject:** Technical Education Program at UW Casper  
**Date:** Saturday, September 24, 2016 at 12:29:44 PM Mountain Daylight Time  
**From:** Chad Sharpe  
**To:** Program Review - Academic Affairs Office

To Whom It May Concern:

My name is Chad Sharpe. I am the principal for the Pathways Innovation Center in Casper, WY and serve staff and students in a project-based, CTE rich facility and program called Pathways: The Academies of Natrona County. This high school program, that opened this year, relies heavily on quality educators with teaching degrees that are industry specific and difficult to find. Four of my employees have graduated from this program and Natrona County School District #1 employs many more that graduated from this program. Many students have and will continue to learn from these amazing graduates from UW/CC Technical Education Program. These programs include Architecture, Engineering, Welding, Construction, CAD drafting, 3D Design, Auto, and Robotics.

I personally have worked with Jon Blesi (Robotics), Megan Graham (Electronics & Robotics), Rod Thompson (CTE Education), Paul Brutsman, and Jason Eggemeyer (CAD). These people have spent countless hours supporting not only UW/CC students, but also local elementary, middle and high school students and teachers in programs like SKILLS USA, FIRST Robotics (Jr. FLL, FLL, FTC, FRC), and Science Olympiad. The loss of these individuals and the programs they champion and succeed at would be a critical loss to our community in whole.

I have one personal story to share with you concerning the power of having these people in our community and this is just one of many stories I could tell.

While I was a science teacher at Kelly Walsh High School I had the privilege of serving a student with special needs who was brilliant, but unchallenged. I invited him to join the FIRST Robotics Competition when he was a sophomore. He was timid and shy, but always willing to step up and try something new. He absolutely found a home with Megan Graham and Jon Blesi from Casper College. I acted as the High School mentor in this dual credit class in the evenings. This student blossomed over the next three years through this program. He found a lifelong passion in design by being exposed to SolidWorks with Jason Eggemeyer when he was drawing up robotics components for the required competition portfolio. This student ended up getting accepted into a prestigious art school in San Francisco and after 5 years of study, landed as a designer for Twitter.

These are the kinds of life changing effects this program has had on Natrona County citizens that are also affecting the world positively. Wyoming grown product is world class and I am proud to write in support of them and respectfully request that you do not take this program from our county. It is much needed now and in the future.

Respectfully,

Chad Sharpe

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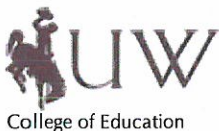
eipi10

**Subject:** Technical Education program at UW-C  
**Date:** Thursday, October 13, 2016 at 10:55:14 AM Mountain Daylight Time  
**From:** Leslie Susan Rush  
**To:** Program Review - Academic Affairs Office

I would like to argue against eliminating the Technical Education degree, which is currently taught out of UW-Casper. My reasons for this will be articulated in this email.

1. When President Nichols came to meet with the College of Education faculty, one of the programs that she had received positive feedback on was the Technical Education program. I have heard similar comments from superintendents in Wyoming, who find it difficult to recruit teachers in their schools who are qualified for these kinds of positions. In addition, the Wyoming Department of Education has a program in place that supports career/technical education in public schools; it doesn't seem to be the right time to eliminate the only teacher education program in the state for teachers in this field.
2. The Technical Education program at UW-C is an excellent example of partnership with Casper College. Students begin their coursework at Casper College and complete their bachelor's degree at UW-C. Are we going to sacrifice the good will and partnership that has been established in this program? I hope not. Our relationships with community colleges are fraught with difficulty as it is. I'm concerned that eliminating this program will make things worse.
3. The one faculty member at UW-C who teaches in this program is Rod Thompson, an APL. Rod is widely respected for his teaching. In addition, he is respected nationally within his field, having served in several leadership positions in his national professional organization.

Overall, I would place this program in the same basket as an Agricultural Education program, one that means something to Wyomingites. Instead of canceling this program, it should be supported with recruitment initiatives.



**Leslie S. Rush, Ph.D.**  
*Professor, Dept of Secondary Education*  
*Associate Dean, Undergraduate Programs*

**Subject:** Academic Program Elimination Proposals  
**Date:** Friday, October 14, 2016 at 3:23:12 PM Mountain Daylight Time  
**From:** Nicholas A. Moore  
**To:** Program Review - Academic Affairs Office  
**Attachments:** image003.png

Good Afternoon,

I was reviewing the programs recommended for elimination and I wanted to comment on the Technical Education program. I understand that enrollment/graduation from that program has been under 50 for the past 5 years which is in large part what put that program on the radar for elimination. It is unfortunate that criteria was neither expressed at an earlier time so that there would have been a "target" for the past 5 years, or that consideration was not given to the fact that the program runs in a "cohort" format which places it at a significant disadvantage when compared to other programs. — ?

Beyond that, I would point out that the employment rate for graduates well exceeded other programs, and that it does serve as a "completer" program for an Associates program at Casper College. These are both critical functions of the program which distinguish it from the other programs on the list. These two functions also serve to advance the mission of the Satellite campus as stated by Dr. Nichols and Dr. Edgens, again distinguishing this program from the others on the list.

I would also take this opportunity to suggest that the relative *only in personnel* low cost of this program (1 faculty member) and the bulk of the "technical" costs being paid by Casper College and grants, coupled with its unique place in the market make it prime for growth and expansion rather than elimination. As stated by the Dean of the College of Education, other institutions have abandoned similar programs due to cost. I believe this places us in a great position to expand the program and revenue by beginning to recruit in those markets (which we have not done to date). The addition of an endorsement program or a post bac program would also allow us to increase enrollment and expand recruiting opportunities to current teachers in other disciplines. To date I have had 4 inquiries from Ag Ed graduates looking to change fields; unfortunately I have no way of assisting them currently and the end result has been lost revenue for the University.

My final concern is that we are underselling the value we gain by providing UW educated instructors to not only Wyoming High Schools, but as we flood those, to high schools outside of our state borders. The first group is important because whether we like it or not, our state's economy is dominated by agriculture and energy and those instructors help train the bulk of our workforce. Placing UW graduates in those positions enhances the University's presence especially within smaller, rural communities. The second group is even more crucial as they expand our alumni network and help to recruit. Alumni outside of Wyoming's borders serve as ambassadors not only for the state, but more importantly, for UW. As we hope to increase enrollment and our institutional impact on the nation, these graduates will be invaluable in that endeavor. If we abandon the program and the educational niche we lose an opportunity.

I appreciate your time and attention to my concerns. If you have questions or if I can provide clarification and or be of any assistance, please do not hesitate to contact me.

Nicholas A. Moore  
Coordinator Student Advising  
UW Outreach Programs/UWC  
125 College Drive, Casper WY 82601  
(307)268-2635/ (800)860-2635/ (307)268-2416(fax)  
[nmoore8@uwyo.edu](mailto:nmoore8@uwyo.edu)



**Subject:** Program Review Industrial Technical Education  
**Date:** Friday, October 28, 2016 at 10:47:05 AM Mountain Daylight Time  
**From:** Paul Plourde  
**To:** Program Review - Academic Affairs Office

Dear Dr. Kate Miller,

The University of Wyoming has begun considering eliminating programs in hopes of reducing budgetary costs. This letter is in regards to the University of Wyoming's recent consideration to eliminate the Technical Education Program.

As a student of the Technical Education Program at the University of Wyoming, and as a college instructor in the state of Wyoming, currently teaching industrial technical programs at both the secondary and post-secondary levels, I am writing in support of continuing the Technical Education Program at the University of Wyoming.

The goals of this program are to provide high quality education and practical working and teaching experiences for future CTE teachers. With the current shortage of qualified CTE instructors and the increasing need for these individuals, this program is an important resource for education in Wyoming. With the current emphasis of teaching STEM technology throughout the country, the University of Wyoming's Technical Education Program is as relevant and necessary as ever.

Research has consistently proven the importance of high-quality technical education teachers. Many Wyoming school districts employ graduates of the Technical Education Program at UW. I have had the pleasure to teach next to and learn new pedagogical strategies from a few of these unique individuals.

Should the university choose to eliminate the program, the University of Wyoming would be doing a disservice to the state of Wyoming, its students, and future tradesmen and women of Wyoming. It is for that reason; I encourage you not to eliminate the Technical Education Program.

Best Regards,

Paul Plourde



Comment on the proposal to eliminate an Academic Program  
Technical Education currently in Secondary Education at UWCC

From: Linda Hutchison, Associate Professor of Secondary Education, Mathematics Education, UW Laramie

The Technical Education program should not be eliminated because it is one of the few programs regionally that provides for technical education teachers. While neither the college nor the university has advertised the program effectively, the students who graduate are employed in the field and provide for continuing these critical programs in our state secondary schools. You might ask why a faculty member whose focus is mathematics is so interested in keeping a program with low numbers. There are several reasons.

1. If we do not provide teachers, these programs will be eliminated in Wyoming High Schools. Family and consumer economics teachers are an example of this. UW does not train them any longer and there are not very many secondary schools that continued with these programs. As the teachers retire, the programs are eliminated.
2. My children both took these technical education courses in high school. My daughter attended UW and graduated with degrees in mechanical engineering and mathematics. She speaks highly of her technical education courses contributing to her understanding and ability to perform when tools were required. My son is attending another university in computer engineering and his high school work in CAD has proven useful. I hope this dispels the myth that it is only useful for non-college-intending students. Our engineering and science programs require students who know how to work with tools and be practical in their applications.
3. Non-college intending students in the state can use the high school coursework to be skilled in a variety of fields and it allows for them to stay in school and possibly see themselves as attending college. Our state has great needs for welding and the technical arts that begin in high school. If we eliminate teachers in these fields, where will low-income students have affordable access to these technical arts?
4. Mathematics is an emphasis in many of the high school courses in very practical ways. It is something that should be encouraged to further our support of teachers to avoid developmental mathematics situations for our students. If students see practical applications that they care about, they are more likely to learn.
5. It attends to the critical STEM fields in very practical ways.

I would encourage a way be explored to work on the recruitment of these students at the community college level so that the program could grow rather than eliminating it. The program is worth the energy of recruiting.

December 12, 2016

Dear President Laurie Nichols:

The Wyoming Technology Education Association (WTEA) would like to thank you for your support of our organization.

The WTEA members have a concern about the future of the University of Wyoming technical education program, this program is the one of two still left in Wyoming to train future career and technical education teachers both post-secondary and secondary. Career and Technical Education programs already struggle to find quality teachers to fill open CTE positions around the state, with administrators often choosing to close down CTE program for lack of instructor availability.

The UW Technical Education Program is critical for Wyoming and the diversification of our state's economy through highly skilled jobs. These skills are taught by educators trained by the technical education program; the unique partnership with Casper College and other community colleges technical programs, makes the program model the best around. The UW Technical Education students are provide the facilities and content experts in several content areas at the community colleges to learn the technical skills needed to be an excellent teacher in the public schools.

In conclusion, WTEA encourages the UW technical education program stay open and be supported by the University of Wyoming to keep providing, highly qualified technical teachers for Wyoming students and the economy. We look forward to keeping CTE strong for Wyoming and its CTE students.

Sincerely,

A handwritten signature in blue ink that reads "Josh Michelena". The signature is written in a cursive style.

WTEA

Brandon Cone, Campbell County High School

Joe Feiler, Kelly Walsh High School

Bret Layher, Big Horn High School

Duane Fischer, Sheridan College

Rob Hill, Pathway in Career Center

Josh Michelena, Sheridan College

**Subject:** FW: Tech Ed Program

**Date:** Tuesday, December 13, 2016 at 4:25:17 PM Mountain Standard Time

**From:** Education Dean

**To:** Program Review - Academic Affairs Office

-----Original Message-----

From: Robert Hill [<mailto:robert1394@myncsd.org>]

Sent: Monday, December 05, 2016 9:32 AM

To: Education Dean <[eddeans@uwyo.edu](mailto:eddeans@uwyo.edu)>

Subject: Tech Ed Program

I am writing as a concerned subject as it pertains to the possible loss of the UW/C Tech Ed program. I am a current teacher in Wyoming and a past graduate. I feel qualified to comment on this as I have spent 20 years in industry at management levels and became a teacher to help promote technical trades to our most important asset: our next generation. I am gravely concerned that we, as a state, say that we value technical trades but do not support postsecondary education opportunities within our borders. I understand that our current fiscal condition is not admirable but the loss of this program would be devastating to the state. We have invested millions of dollars collectively to promote our future workforce in Wyoming. We will be severely handcuffed for years into the future if we sunset this program. I believe we must invest in our future. We have to. If we do not we are the only people left to blame. Please reconsider this decision.

Thank You,

Robert Hill  
Construction Teacher  
NCSD#1  
307.277.3670

Taylor Chase

Mr. Stocker

Small Engines II

14 October 2016

*To Whom It may concern*

Technical education is more than just a good time, Tech Ed is needed. I have learned more in my Tech ED classes throughout my high school career than I ever will from science and math. Auto, woods, welding, drafting, robotics, electronics, and machining that is most of the classes covered by Tech ED. Those classes are more important than any core class in my opinion, because it is all actually applied in the real world. I'm more likely to use the knowledge of how to weld, then to use the knowledge that the mitochondria are the powerhouse of the cell.

Currently I am enrolled in three CTE classes Small Engines two, Welding one, and Auto Two. I highly enjoy all of these classes. I plan to take Welding two and Auto three next year. If these classes weren't available to me I wouldn't be in school. I would have dropped out the moment I turned sixteen. The only thing that makes this school bearable is the Tech ED classes. If I didn't have a class in the shop where I'm up and moving I would go stir crazy. I know a good percentage of the kids at CCHS including myself will agree with me.

My shop teachers Mr. E, Mr. Frick, and Mr. Stocker are not just teachers they're people, they don't act like this is school they act like this is the real world. Mr. Stocker is the youngest out of them, and when Mr. Frick, and Mr. E retire they might shut down these programs, because I have heard that CTE teachers are hard to find and hire.

Caitlan Raney

### CTE Matters

To me taking CTE classes breaks up the routine of everyday class work, in these classes you aren't necessarily working on the same thing everyday. Once you complete something you move onto the next task. Also getting the opportunity to work hands-on relieves stress. On top of that, the fact that if you're on task you almost never have any homework makes these classes a lot less stressful than other classes. The reason I started taking CTE courses was to learn applicable skills to real world problems, I hadn't imagined I'd aspire to make a career out of it. However now that I've been taking more and more of the CTE courses, such as small engines 1 and 2 and welding. I haven't made up my mind of course, but I have thought about it quite a bit.

According to Seen Magazine, 80% of students that take CTE courses alongside their core academic classes minimize the risk of dropping out of highschool entirely. That statistic alone says that CTE courses are basically the only reason that some kids get out of bed in the morning. These classes prepare students for success beyond graduating high school. I'd very likely be alongside those statistics if I didn't take CTE courses or if they weren't offered to my school.

CTE courses develop students' noncognitive skills more efficiently than core classes alone. A blend of CTE courses and core academics helps to contextualize learning for students, which inspires motivation and often leads to very successful people.

For me CTE classes have been an incredible experience to explore career options and develop lifelong skills. I have formed better relationships with my CTE teachers due to the fact that the activities are hands on, and they are all so willing to work with me and all of my

classmates. I am exceedingly grateful for all of the opportunities that my school offers through its CTE courses. I really can't imagine how I'd be doing academically if it weren't for the courses offered through CTE.

Nate Guernsey

## CTE

To me and many others CTE is much more than just “a shop class” or a waste of time. To some it's learning skills that they will need in a future jobs such as welding. To some its the classes that helps them learn real world skills like how to fix up a vehicle or have the necessary skills to fix it if it breaks down. Everyone should have the basic knowledge of how their cars work and how to fix them if something happens so you aren't stranded. The reasons I took CTE classes is because I want to gain applicable skills to my future and these classes have helped me immensely.

Currently I am enrolled in Welding 1, Auto 2, and Small Engines 2. I took Welding because my dad owns a welding shop and I wanted to know how that all works and I wanted to be able to help him in the future. I took Auto 2 because I learned a lot in Auto 1 and I wanted to learn more, and I love working with my hands and I get college credits for Auto 2. Finally I took Small Engines 2 because it's always helpful to know how to fix small engines such as lawn mowers and weed whackers, cause it could save you a bunch of money if you can figure out what's wrong by yourself and then going out and buying the part yourself.

Next I would like to talk about the teachers that teach these classes because they are all great fun people who make class fun while we also get stuff done. Let's start with my welding teacher he's a great teacher very nice and caring but he's also got a fiery side. That side only shows when you don't follow the safety rules or disobey him. Next is my auto teacher his personality is really out there so to say. He loves making corny jokes but one thing he doesn't

joke about is safety. He cares about his students and doesn't want to see anything bad happen to them. On top of that he really knows what he's talking about. Last but not least is my Small Engines teacher, he's probably my favorite teacher. Hes got a goofy personality and hes funny but he also cares about the success of his students. He's not afraid to stay after and burn the midnight oil to help his students understand and help them know what they are doing.



**Subject:** UW/CC Career and Tech Ed program

**Date:** Monday, December 5, 2016 at 7:36:34 PM Mountain Standard Time

**From:** Brian Adami

**To:** Program Review - Academic Affairs Office

To whom it may concern,

I was concerned to hear of the recent discussions the University is having regarding many of the programs and their potential elimination. I am a graduate of your education program and currently employed here in state.

It is, in my opinion, a mistake to cut Technical Education from the current curriculum. Every single member of my graduating class I stay in touch with has found gainful employment as educators. This is surely a combination between the quality of education we were offered as well as the great demand for individuals in our field.

The program I took over had been languishing for years. It took me 4 years but student numbers have doubled justifying the need for another educator at my school. After two months of the job being posted only one individual applied. This would not be uncommon in an extremely rural or one of the less desirable communities in our state but this was in Cheyenne. The largest and best paying of the districts in our state.

My principals were blown away by this one applicant. He was "a rock star" according to one of them. His excitement could hardly be contained! I had asked where he graduated from and his reply, "same as you!"

Without the last graduating CTE class from UW/CC, classes would have been cut or class numbers would have been pushed to the breaking point. We live in a state that prides itself on self reliance, quality education (I've seen the states education budget), and preparing our youth for success both within and outside our states borders.

Currently UW produces excellent Tech Ed teachers. Their training as educators and industrial arts cannot be found at another college for hundreds of miles in any direction. The demand for these positions will soon outstrip the supply of these education graduates however. Wyoming will be forced to resort to industry. Hiring people with zero training or education as teachers. Sure, a pipe welder with 30 yrs experience in the oilfield is a plethora of knowledge but they can lack the tools needed to effectively convey that knowledge to Wyoming's youth.

I implore you to reconsider and keep the Tech Ed program at UW/CC. Wyoming's and the University's budget crisis will not go on forever. Although a teacher shortage would mean job security for me, it would not be in the best interest of our students.

Sincerely,

Brian Adami  
Career and Tech Ed Teacher  
McCormick Junior High

Sent from my iPhone

**Subject:** Technical Education Potential Cut

**Date:** Monday, December 5, 2016 at 10:23:05 AM Mountain Standard Time

**From:** Peter Stocker

**To:** Program Review - Academic Affairs Office

In regards to the potential cutting of the Technical Education program. My name is Pete Stocker and I am one of the many products of the University of Wyoming Technical Education program, taught by Rod Thompson. Seeing this potential cut is very concerning to me for many reasons. I truly hope that after reading this and many others that you will reconsider this decision. Being a former student of the Technical Education program, I will attest that Career and Technical Educators are in high demand throughout the country. Not just Wyoming, but the country. A month before I graduated with my bachelor's degree I had accepted my first teaching position and turned down three others. All within four different states. Knowing many of the previous students who have completed this program, 95% of them are currently teaching. That is an impressive percentage to have employed and using their degree. I am willing to bet that not many other programs have this high of graduates working in their degree fields, especially right out of college.

Technical Education is a program that is scarcely spread throughout few universities. If this program is cut it would force many of our Wyoming students to go out of state, which will cost more money and these programs aren't tailored to the Wyoming lifestyles. From my experience in college and being a member of Technology and Engineering Education Collegiate Association (TEECA), I have witnessed how our program at UW is unique in regards to tailoring. In the Midwest our needs are much different than those on the coasts. The program's value is unmatched within the Midwestern states, it provides quality teachers, and furthers the educational systems in Wyoming.

This program may produce small numbers, but dynamite comes in small packages. It is hard to argue that a program with a 95% success rate should be cut. In education we all know that smaller classes provide a deeper level of understanding and quality education. This program has had a huge impact on who I am today and what I do for students. I have a greater understanding of what students need in order to learn and the depth of knowledge in concentrated areas of woodworking, welding, automotive, drafting, robotics, and electronics. Not only has this program affected my education, but it has helped me develop friendships; professional and personal. I am constantly consulting Rod and many of the teachers that have come through his program with ideas and questions regarding innovational CTE programs. This program has begun to create a team of quality CTE teachers throughout our state. During my time in undergrad I learned the importance of professional development and involvement. This is one of the aspects that Rod Thompson stressed. I can say this has been essential to my career thus far. During school I became a member of Technology and Engineering Education Collegiate Association (TEECA), and Wyoming Association for Career and Technical Education (WACTE). I am still involved with these organizations and I attribute it to Rod's leadership while I was in his program. These organizations have provided me with

networking and professional relationships. With his guidance and leadership I ran and was elected as president elect of the Wyoming Technical Education Association (WTEA) for this coming year. Being involved in these has allowed me to make a difference at the state level and collaborate with other teachers. All of this is attributed to the Technical Education program at UW.

I cannot say enough good things about this program and the quality of life it has provided me. Seeing it go away would be detrimental to our state's CTE future. Rod Thompson has built a quality program and continues to affect lives daily, more than he even knows. I truly hope that you reconsider this cut.

If I can provide you with any further information please don't hesitate to contact me.

Pete Stocker

CCHS Small Gas Engines

[pstocker@ccsd.k12.wy.us](mailto:pstocker@ccsd.k12.wy.us)

307-746-6515



900 S. Beverly  
Casper, WY 82609  
253-2300  
Casey Cloninger-Principal

School Start Time: 7:45am

School End Time: 2:48pm

To Whom It May Concern,

I've just recently become aware of the fact that the University of Wyoming College of Education at Casper has proposed the possible elimination of the Technical Education and Art Education programs. These two programs currently support elective opportunities at Frontier Middle School (FMS). These two programs are also quite unique for this region and our state of Wyoming. Our Casper program currently continues to help us fulfill the demands and needs of providing these unique opportunities to Wyoming kids. It can be difficult to fill these types of openings within Wyoming because of the vast geographic region. I don't see how we can afford to lose these two unique programs!

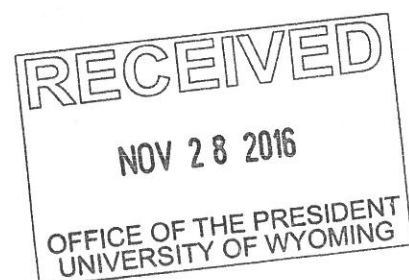
Why is the program so important to FMS? We are currently 30% special education and 80% socioeconomic. The students of FMS depend on the ability of teachers to provide hands-on activities while in the learning environment. The CTE (Career Tech Ed) and Art program are two of those programs that fulfill these opportunities for students. We have adjusted our curriculum to more heavily support the state's STEM (Science, Technology, Engineering and Math) program. We are currently hoping to expand our ability to compete in state and national competitions. We became one of five finalists in the Samsung \$2 million dollar competition in Wyoming and hope to compete this year. Our school started the 2016-2017 year offering STEM Fridays to all students the first thirty minutes of every Friday. Due to the success of this program our attendance at FMS has increased! I can tell you that this is just the tip of the educational data that could be use to support these two classes and the impact on student success.

I would like to provide my support for keeping the Technical and Art Education programs at UW@Casper. FMS students must have the skill to enact the engineering design process to gain future employment. I worry that unless we keep these programs strong we will lose more of our current students to out-of-state employment. Do we find this acceptable as parents, teachers, community members and elected officials? If so, then we are not providing the necessary skills for your and our children to stay-in-state.

Sincerely,

A handwritten signature in black ink that reads "Casey C Cloninger". The signature is written in a cursive, flowing style.

Casey Cloninger  
FMS Principal  
307-253-2300



To Whom It May Concern:

I am writing this letter in support of the Technical Education Program at UW/C. I am a teacher in Natrona County School District. I have mentored three student teaching residencies from this program thus far. Two of three, three in due time, have secured teaching employment in the state of Wyoming. I have grave concern if this program is cut.

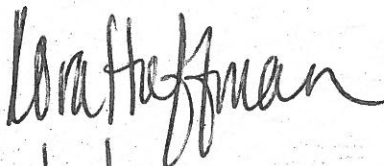
The UW/C program is unique in the state and region. Although the numbers in this program are low, the program is consistent and develops quality educators. This program should not be held at the same standard of high enrollment as elementary education for example. Rod Thompson is a dedicated professional and has developed many partnerships within the community of Casper and statewide. These relationships are key to the quality education students are getting throughout the duration of their program. Losing this program would be detrimental to education and many industries within our economy.

High numbers of our teachers are aging and approaching retirement. Without quality educators to fill those positions, programs die. Statewide, our business and industries cannot afford to lose quality CTE programs. Without a technical education teacher preparation program, we cannot meet the growing demands and needs of our schools and employers.

Please give this decision careful consideration. We cannot afford to lose the Technical Education program and UW/C. Our youth deserves to have quality CTE experiences as they prepare to become contributing members to society. Thank you for your time.

Sincerely,

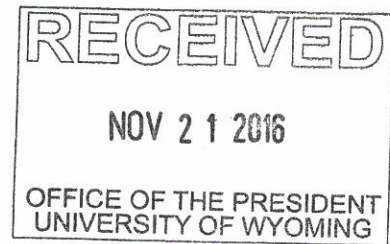
Kora Huffman



11/17/16

November 17, 2016

Kris Newman  
4010 Plymouth  
Casper, WY 82609



Laurie Nichols  
Office of the President  
1000 E. University Avenue  
Dept. 3434  
Laramie, WY 82071

Dear Laurie Nichols:

I am writing this letter to advocate for the CTE program ran by Rod Thompson at UW/CC. This program is important to the state of Wyoming and University of Wyoming. There will be a big turn over here soon as most shop teachers are older and will be looking at retiring. I believe the best way to get quality is to raise your own. Wyoming has a history with industrial type jobs and the skills the CTE teachers teach are the ones used by industry. If it wasn't for his program there would not be CTE teachers in the field teaching skills for our region or field of work using applied math and physics, engineering, art, critical reading skills that allow a person to read a print to machine a part or build a house. There are people out there that would have dropped out of school if it weren't for their shop teachers giving them a skill that they enjoyed doing everyday and a career in the future.

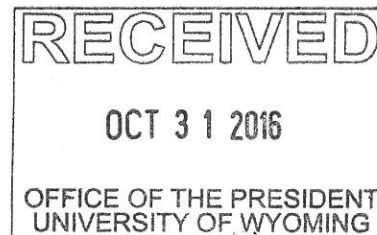
Please during your meetings and if you vote can you please stand up for his program and keep it!

Thank you,

A handwritten signature in blue ink that reads "Kris Newman". The signature is fluid and cursive, written in a dark blue color.

Kris Newman

Lucas Dow  
Kelly Walsh High School  
3500 East 12<sup>th</sup> Street  
Casper, WY 82609



October 24, 2016

Laurie Nichols  
Office of the President  
University of Wyoming  
Laramie, WY 82071

Dear President Nichols:

My name is Lucas, and I was among the first graduates of UW's Technical Education program in 2004. Since then, I have enjoyed the opportunity to touch the lives of over 1,200 young Wyoming students through the Career and Technical courses that I teach. This has been a very fulfilling and rewarding profession. I feel fortunate to have had the chance to prepare students for college and careers in local industry.

I have been successful as an educator, and have received several teaching awards at the local, state, and national levels. I have been a presenter at local and regional conferences. I have mentored three student teachers, who are now award winning instructors in their own Wyoming classrooms. I have also worked with over a dozen practicum students, and shared my love of teaching Technical Education (Tech Ed) classes. In addition to my bachelor's degree, I have earned a coaching certificate, middle level endorsement, master's degree, K-12 principal certificate, and numerous other graduate level courses. I would like to think that I have become a valuable part of Wyoming's education system, and I intend to continue loyal service to my state for another twenty years.

I recently learned that the University of Wyoming intends to eliminate the Technical Education program. I feel that this would be a huge mistake on many different levels. First of all, I would not be in education today if it were not for UW's Technical Education program. I declared my major at Casper College in the spring of 1999, with the intent of transferring to UW/Laramie after my general study requirements were met. After dedicating two years to intense coursework and multiple low paying jobs to help pay tuition, I learned that Laramie would be dropping the program that I had been working so hard to transfer into. I was devastated and extremely frustrated. Dropping out of college and going to work in the oil field seemed like a good option. Joining the military seemed like another possible path. As a last ditch effort, I decided to meet with Keith Cottom, the head of UW's outreach program at that time. I expressed my dilemma with Mr. Cottom, and asked point blank, "Is this program going to continue or do I need to find something else to do with my life?" After a few moments of hesitation, Keith looked me in the eye and assured me that the program would continue at UW/Casper. Three years later, I delivered the commencement speech for the UW/C graduating class of 2004 and earned the degree that I had worked so hard for. Keith Cottom made a promise and delivered. Had the program

been eliminated then, all the teaching accomplishments I listed earlier in this letter would have never happened.

I understand that our state is making financial cuts, and that on paper, it seems that this program is not cost effective. This notion is far from the truth, and I would argue that as a state, it would cost much, much more in the long run if we stop funding Technical Education. Ninety five percent of the graduates from this program have landed a teaching job in our state. Each of them inspires students to pursue careers in construction, machining, welding, auto mechanics, drafting, engineering, etc. These are just a few of the Tech Ed related jobs that keep our state and nation strong. Wyoming's economy depends on skilled labor, why would we eliminate a program that provides such a diverse workforce for our state? It's true that Technical Education only graduates an average of six students every other year, but those graduates recruit hundreds and thousands of students into skills related fields when they become teachers. This program helps our state and our nation!! As I said earlier, it would be far more costly to eliminate Technical Education than to keep it going.

High Schools and middle schools in many other states are already experiencing a shortage of qualified applicants for Career and Technical Teaching positions. This trend will get worse as current teachers retire, and the demand for Technical Education teachers will grow. Classrooms that are normally at full capacity every period of the day will sit empty, because there will be no Tech Ed instructor. After a year or two of searching, the courses will be eliminated, and students will suffer. Our state's economy will suffer. Our nation will suffer.

University of Wyoming/Casper is one of only a few colleges offering a Tech Ed program in our region. Students interested in Tech Ed can attend classes at BYU (Utah), or Wayne State in Nebraska. If we force our Wyoming students to attend these schools by dropping our Tech Ed program, there will be a very a slim chance we will get them back into our classrooms. They will be snatched up by nearby demand.

As a product of the UW/C Technical Education, I urge you to reconsider eliminating this program. It may seem like you are only hurting six students every other year, but the long-term effects will be much greater than any of us can fathom.

Sincerely,

A handwritten signature in cursive script that reads "Lucas Dow". The signature is written in black ink and is positioned above the typed name.

Lucas Dow, M. Ed  
Technical Education  
Kelly Walsh High School



X

# CAMPBELL COUNTY HIGH SCHOOL

**Troy Zickefoose**  
Principal

**Jason Garman**  
Associate Principal

**Scott Arthur**  
Dean of Students

1000 Camel Drive  
Gillette, Wyoming 82716-4950  
Phone: (307) 682-7247 • Fax: (307) 686-7274  
Activities - Phone: (307) 687-0369 • Fax: (307) 687-0032

**Dennis Holmes**  
Principal -  
Thunder Basin

**Mitch Burgess**  
Associate Principal

## SOUTH CAMPUS

4001 Saunders Boulevard, Gillette, Wyoming 82718  
Phone: (307) 687-7733 • Fax: (307) 687-0653

10/17/2016

Dear President Nichols and members of the UW Budget Committee:

I am writing in support of the Technical Education Program offered at Casper through the University of Wyoming. Through my capacity overseeing the Career and Technical Education program here at Campbell County High School I have had the good fortune to hire multiple CTE teachers and several have been graduates of the UW Casper Program. These candidates have been some of the most promising and effective instructors that I have hired and were a welcome addition to our veteran staff.

In addition to writing to speak to the high quality of the pre-service training these teachers received, I also wish to address the current and upcoming need for CTE teachers in Wyoming. Many of my current CTE teachers will be retiring in the near future and will be leaving programs that communities have come to depend on to introduce the next generation of the workforce to introductory industry skills and principles. Even though the program at UW Casper does not impact a large number of undergraduate students, the impact that the program's graduates have on Wyoming schools and committees is huge. Furthermore, maintaining a qualified pool of applicants is crucial to classroom safety and ensures program viability for future generations of Wyoming's students.

I realize that the overall budget landscape is very challenging at both the state and local level and in such dire times I am hesitant to advocate for any program. However, I feel that for future generations of students I have a responsibility to voice support for continuing the Technical Education Program.

Respectfully,

Mr. Jason L. Garman  
Associate Principal CCHS

RECEIVED  
OCT 31 2016  
OFFICE OF THE PRESIDENT  
UNIVERSITY OF WYOMING



We foster personal growth and life-long learning.

The state of Wyoming provides Hathaway Merit and Need-Based Scholarships to all eligible Wyoming students attending the University of Wyoming or Wyoming community colleges.

