

reVISION

Which reVISION grant are you applying for?
reVISION Grant

For which grant year are you applying?
2020-2021

Name of Local Education Agency:
Educational Service Unit #9



Program Contact Information:

| | Name | Title/Role | Phone | Email Address |
|-----------------------------------|-----------------|-------------------------------------|-----------------------|--|
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Target Group to be Served:

Rural Area Students (located outside of Omaha/Lincoln metropolitan areas)

Total Grant Funds Requested:

\$160,000.00

Grant Writers:

Project 9-4: Educational Service Unit 9 + 4 School Districts

2019 Writing Team:

ESU 9 - Jackie Ediger, Kristen Slechta

Adams Central - Neile Anderson, Becky Fisher, Crystal Hassenstab

Doniphan-Trumbull - Joni Martin

Harvard - Cliff Gallant, Scott Trimble

Kenesaw - Rod Richardson, Chuck Roe

2020: Kristen Slechta & Chuck Roe



Educational Service Unit 9: 5807 Osborne Drive West, Hastings, NE 68901-9158

Section 1: Application Overview Advancing Career and Technical Education in Rural Nebraska
 Adams Central Public Schools, Doniphan-Trumbull Public Schools, Harvard Public Schools, and Kenesaw Public Schools, all rural schools with an average population of 512 students, are collaborating once again (year 2 of our 4 year plan) in an effort to enhance career and technical educational programming with an emphasis on developing curriculum and course expansion in the Health Science and Skilled and Technical Sciences Career Clusters. This pursuit is based upon the data shared by the Nebraska Department of Labor and the top ten H3 (High wage, High skill, High demand) jobs in the Central and Grand Island MSA regions:



| | |
|---|--|
| Central Economic Region: <i>Doniphan-Trumbull</i> | Grand Island MSA Region: <i>Adams Central, Harvard, & Kenesaw</i> |
| #2 Registered Nurses #5 Machinists #9 Licensed Practical and Licensed Vocational Nurses | #2 Registered Nurses #7 Licensed Practical and Licensed Vocational Nurses #10 Farm Equipment Mechanics and Service Technicians |

Top Ten H3 Occupations by Demand report from <http://h3.ne.gov/>

| School District: | Career Field: Health Sciences (2018) | |
|-------------------|---|---|
| Adams Central | <i>Intermediate</i> <i>Intermediate</i> <i>Capstone</i> | Medical Terminology (077600) Anatomy and Physiology (130210) Biotechnology (012004) |
| Doniphan-Trumbull | None | |
| Harvard | <i>Intermediate</i> <i>Intermediate</i> | Medical Terminology (077600) Anatomy and Physiology (130210) |
| Kenesaw | <i>Intermediate</i> | Anatomy and Physiology (130210) |

| School District: | Career Cluster: Skilled & Technical Sciences 2018-2019 | Career Pathway: Skilled & Technical Sciences 2018-2019 |
|-------------------|--|--|
| Adams Central | Architecture and Construction Manufacturing | Construction Manufacturing Welding |
| Doniphan-Trumbull | None | |
| Harvard | None (<i>Courses offered, but not a pathway: Welding, Construction, Automechanics</i>) | |
| Kenesaw | None (<i>Courses offered, but not a pathway: Principles of Technology/Drafting, Welding, General Construction</i>) | |




With last year's funding, all four named school districts acquired zSpace technology units () and participated in professional development for implementation (). Current placement is documented in the table below:

| Adams Central | Doniphan-Trumbull | Harvard | Kenesaw | Checkout from ESU 9: |
|-------------------------|--------------------------------------|----------------------------|---|--|
| 10 | 6 | 6 | 6 | 2 |
| Placement: Dispersed | Placement: 3 stationary, 3 mobile | Placement: Lab (Locked) | Placement: Some mobile, some stationary | Mary Lanning Memorial Hospital Education Department |


This Augmented Reality (AR) / Virtual Reality (VR) system offers and will continue to offer current educators the hardware, software, and educational content to offer CTE learning applications. The following offers a breakdown of current and proposed applications by career field:

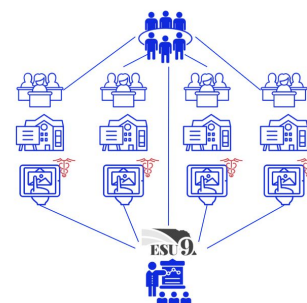
| zSpace / RTI | Current | Proposed |
|------------------------------|--|---|
| Health Sciences | Biotechnology, Health Information, Sports Medicine, Support Services, and Therapeutic Services | Renewed annual license for all AIO units: Biotechnology, Health Information, Sports Medicine, Support Services, and Therapeutic Services |
| Skilled & Technical Sciences | None | Virtual Automotive Expert, Mechanic, and Diagnostics, Electric Automotive Mechanic & Hybrid Automotive Mechanic, and Mimbus Welding with basic Welding Management System Access (GMAW & SMAW Process) |

zSpace technology is used to train students and staff at UNMC. Rural locations with limited health science and manufacturing resources and constrained district budgets are reasons for choosing virtual learning experiences that translate to the real-world of a field that is in high demand, offers high wage, and requires high skill.

Each school appointed a local CTE Advisory Board () in 2019-2020 based on current reVISION committees to guide the development of curriculum and use of zSpace technology within the school district as well align the coursework and simulations to the practices of the medical profession. This board will continue its work in 2020-2021. Advisory board members will consist of community members who participated in the community engagement meetings of 2019 and the Economic Regional meetings of 2020.

Last, each school district appointed a representative to the CTE

Steering Committee () in 2019 and will again in 2020. ESU 9 and community stakeholders, specifically of the Health Science and Skilled and Technical career fields, will work to support and sustain the efforts of the four districts using zSpace technology. This plan of action is



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based upon economic data, community engagement feedback, capacity level, and the intent to expand the opportunities for students in rural central Nebraska.

Section 2: Key Objectives

The overall goals for this grant year (year 2) directly relates to the outcomes of the Initial reVISION process and the reVISION process of 2020. Each named school district participated in a local community engagement meeting as well as a collective community engagement meeting. The following table lists the five outcomes of the reVISION process and explains how the proposed changes in Section 1 contribute to each school district’s overall career readiness and career education system:

| Key Objectives: | Explanation/Alignment: |
|--|---|
| <p>Outcome 1: To <u>align</u> career education programs with workforce needs and economic development priorities.</p> | <p>Health science is a career field in high demand and a regional priority. According to the <i>Bureau of Labor Statistics and Nebraska’s Next Economy</i> report, Health Services account for 11% of Nebraska’s economy, coming in third to Business (18%) and Education (16%). “Nebraska is expecting an increase of 13,272 jobs in this cluster between 2014 and 2024.” <i>Career Exploration, NDE</i></p> <p>Mary Lanning Healthcare was a pivotal member of the collective engagement meeting offering feedback in terms of high demand and willingness to collaborate with local school districts to inform and expose students to the array of employment opportunities in the medical field.</p> |
| <p>Outcome 2: To <u>update</u> current career education programs of study and curricular offerings to meet postsecondary entrance requirements.</p> | <p>Current CTE courses from each school district were shared and compared at the collective community engagement meeting. This information along with the data from the Nebraska Department of Labor and the H3 jobs in the Central and Grand Island Region led to the awareness of an extreme deficiency in Health Science and Skilled & Technical Sciences (STS). Expansion of course offerings in these fields will expose students to another career field at school, STEM experiences, and courses preparing students for post-secondary success.</p> |
| <p>Outcome 3: To <u>strengthen</u> career readiness resources and strategies.</p> | <p>Each local engagement meeting analyzed the current reality of each district’s resources along with the needs of employers for the current workforce in our region. Small rural schools are at a disadvantage when it comes to proximity to and access of medical health facilities and STS educators with industry grade equipment for instruction. zSpace offers technology that allows for active and engaging learning experiences, exposure to multiple levels of Health Science and STS, and the time and space to explore.</p> <p>With built-in modules and software applications, zSpace offers equity and opportunity. Technology offers practice in techniques that normally require many consumables. For example, dissection and welding materials are expensive. The time and energy used to purchase, prepare, and clean-up after learning labs is also considerable.</p> |



| | |
|--|--|
| | <p>zSpace will provide an extremely useful and realistic view for training of the human body. Understanding the movements and mechanisms of human anatomy will assist in taking an anatomy class from memorization and concept of body parts to understanding the systems functions.” <i>Rena Foster - Educator and Mikayla Staehr - Registered Nurse, Mary Lanning Healthcare</i></p> <p>zSpace provides “students with unique opportunities to view and interact with authentic representations of science processes and phenomena.” https://zspace.com/edu/</p> <p>In addition, zSpace operates by Microsoft Windows. This allows students the exposure of a different orientation, from that of Chrome and Apple, thereby expanding student capacity for technology and flexible thinking in the workforce.</p> |
| <p>Outcome 4: To fortify career guidance initiatives for <u>all</u> students.</p> | <p>“Arguably the most important issue in developing and sustaining the American science and engineering workforce is resolving access and equity issues of underrepresentation (i.e. gender, racial, ethnic, and individuals with disabilities) in the STEM pipeline. Through ongoing research, zSpace® may prove vital for students from historically underserved or under-performing groups in science including: 1. English language learners who benefit from visual learning 2. Students with disabilities 3. Students with attention-based disorders who benefit from user-directed one-on-one instruction 4. Students who learn in environments with limited tools or science or safety equipment preventing their participation in hands-on activities 5. Students from diverse cultural backgrounds whose religion or values may prevent them from full participation in science experiences.” Learning in the Digital Age: A Review of the Research on Innovative Technologies</p> |
| <p>Outcome 5: Engage local and regional businesses in career education programming.</p> | <p>Two crucial elements to this reVISION grant involve the influence and support of the CTE Advisory Board (local) and the CTE Steering Committee (regional). Both groups will consist of community stakeholders who will learn, inform, and provide feedback in terms of career education. The CTE Advisory Board will respond to and support the programming at the local level, keeping in mind the four school district’s needs, respectively. The CTE Steering committee will guide and support the development of Health and Skilled & Technical Sciences for the future.</p> |

| Initial reVISION process | Action Steps | Who is Responsible | Related Expenditures | Estimated Costs |
|---|---|---|----------------------|--|
| <p>Year 1 of Action Grant: 2019-2020</p> | <p>*Acquiring zSpace Technology *zSpace Professional Development (PD) *Curriculum</p> | <p>ESU 9 zSpace Experts & ESU 9 School District CTE Staff,</p> | | <p>\$180,000 (acquired & paid) \$17,600</p> |



| | | | | |
|--------------------------|--|--|--|---|
| | Collaboration and Course Expansion for the Health Science Career Cluster *CTE Advisory Board-Local *CTE Steering Committee | CTE Advisory Board, and Professional Development Specialist, Kristen Slechta School District & Community ESU 9, School District Representative, & Community Stakeholders | 4 Days of PD (Substitute Reimbursements) Stipends (non-contract time) | (acquired & paid) \$2400 (acquired & paid) |
| Year 2: 2020-2021 | Curricular Expansion in Health (renewed licenses) and Skilled & Technical Sciences (new licenses) | | | |
| Years 3+ | Development of Course Mentors - Career field experts to access and guide educational practices and zSpace technology usage. | | | |

Section 3: Project Activities




Activity 1 Renewing zSpace Software Licenses & Acquiring New Licenses to Support Skilled & Technical Applications

This activity will prepare teachers in teaching and students in learning about careers in Health and Skilled & technical Sciences. These applications are designed to provide both interactive and cooperative, hands-on learning experiences. zSpace is technology that combines elements of virtual and augmented reality. zSpace allows students to interact with simulated objects in virtual environments as if they are real. Technology that is adaptable, responsive, immersive, and engaging promotes learning for students at all levels. zSpace continually updates software and provides troubleshooting in real time to ensure that the systems are at optimal performance and consistently meet the industry standard in content that is delivered in the classroom. Such content is adaptable within the platform to educators. For example, teachers have the capability to adapt, design, and create curriculum and assessments within the platform.


| Justification | Sustainability |
|---|---|
| <ul style="list-style-type: none"> • Applicable to all students in a virtual, safe environment • Provide opportunities that are not currently available in rural small schools • Enhances career pathways • Expands to known deficits in current programming • Lends itself to future expansion without further upgrade of technology for an extended period of time • Without funds made available through reVISION and our collaborative efforts, our current resources could not accommodate ambitious pursuits such as zSpace. Perkins grant funding would not suffice. | <ul style="list-style-type: none"> • Professional development for zSpace software is provided through the cost of zSpace equipment • zSpace provides curriculum/programs for Health and Skilled & Technical Science programs of study • Adaptive as a curriculum or curriculum enhancement that allows for the ability to meet the needs of all our students |



| | |
|---|--|
| <ul style="list-style-type: none"> • zSpace offers both individual (driver glasses) and cooperative (passenger glasses) learning experiences which align to the Nebraska Career Ready Practices of “Communicates Effectively and Appropriately” and “Works Productively in Teams” as well as “Utilizes Technology” and Applies Appropriate Academic and Technical Skills.” | <ul style="list-style-type: none"> • Support of ESU 9 and Kristen Slechta, former science educator and Perkins IV Project Director • With four CTE Advisory Boards and the CTE Steering Committee, there is the structure and support for ongoing enhancements, adaptations, and collaborative curriculum writing. |
|---|--|

 **Activity 2** Curriculum Collaboration & Course Expansion for the Health and Skilled & Technical Science Career Fields Collaborative time is needed to develop a curriculum that incorporates zSpace technology, aligning it to Nebraska College and Career Science (NCCRS) standards and Career Readiness standards. This collaborative time is offered as Career Field Collaboratives or cadres facilitated and supported by ESU 9.

| Justification | Sustainability |
|---|--|
| <ul style="list-style-type: none"> • All four schools are lacking in Health and Skilled and Technical Sciences programs of study or pathways. The Central Region of Nebraska has a high need for H3 (High demand, High wage and High skill) jobs with many of the largest employers being health providers, schools, and manufacturing companies. • Career Interest Data: <ul style="list-style-type: none"> ○ Adams Central - ONET Survey Responses: 29% for Health Science (1st in rank) ○ Doniphan-Trumbull - 25% for Health Science ○ Harvard - ONET Survey Responses: 17% for Health Science (3rd in rank) ○ Kenesaw - 10% for Health Science (3rd in rank) | <ul style="list-style-type: none"> • Through this collaborative grant process and purchasing zSpace technology, we will have the ability and capacity to: <ul style="list-style-type: none"> ○ Collaborate and learn from each school district’s experiences ○ Write curriculum together in a professional learning community. • Professional development dates would be spaced appropriately to learn zSpace technology, write curriculum, and align it to new coursework. Dates in the second semester would be dedicated to revising curriculum and preparing schedules to match the coursework offerings. |

 **Activity 3** CTE Advisory Board (Local) and CTE Steering Committee (Regional)
The CTE Advisory Board controls local activities and adjustments by each individual school. Decisions locally are based on student need, district data, and community stakeholder feedback. Community stakeholders are defined as business, industry, post-secondary, teachers, school board members, parents, and students. It will contribute to the CTE Steering committee or regional group. The CTE Steering Committee is responsible for the grant proposal, actions steps, and further development and



expansion of career education in our rural and centralized region. It will consist of local board representatives, ESU 9, and community stakeholders. Due to the addition of Health Science coursework, specific community members with expertise and experience in the medical field will be in attendance.

| Justification | Sustainability |
|---|--|
| <ul style="list-style-type: none"> Through the reVISION process, we learned that collaboration among groups, both local and regional, increases incentives and ensures accountability to the original vision. Advisory boards provide career-relevant knowledge and momentum to influence needed adjustments with changes in growth and demand over time. These claims are further supported with the experience of four community engagement meetings. We were affirmed by the level of community enthusiasm, the willingness to participate, and the need to continue to tap into our collective resources to promote career and technical enhancements that will benefit our students and communities. Community Member Example: "I would like to come present to classes about Health Information Management career opportunities. Possible HIM careers include transcription, coding and billing, data analytics, release of information, record retention and management. Possible work environments are hospitals, physician offices, insurance companies, veterinarians, etc." Claudia Krueger - kekruieger@hamilton.net <i>Doniphan-Trumbull Community Engagement Meeting</i> | <ul style="list-style-type: none"> By developing a continuous network of professionals and support staff, we will be able to sustain course offerings, even if participants change over years and our needs evolve. |

Section 4: Commitment & Capacity

The CTE Advisory Boards (local) and the CTE Steering Committee will consist of individuals from the local and regional reVISION process, Community Stakeholders, Educators, School Administration, and School Board Members from each of the school districts. This team transition and restructuring will ensure groups stay active and intact.

The CTE Advisory Board per district will provide direction at the local level ensuring all plans for implementation will be constantly monitored, data will continually be collected, and ongoing support for teachers and staff in CTE will be a top priority. This board will allow this action plan to remain agile and able to be adapted as situations demand. Along with the day to day program implementation, this board will help manage the resources afforded to them by the local community through continued relationships with the local health providers, nursing homes, physical therapy centers as well as other potential stakeholders that can play a role in supporting this initiative.

The CTE Steering Committee will meet quarterly to follow up on grant implementation and provide resources for training, collaboration, and management of financial resources. The overarching objective for the steering committee is to help organize and facilitate strong collaboration among the four named school districts. The committee will be the liaison to regional resources and stakeholders. Such resources would include, but not be limited to, Central Community College, Mary Lanning Healthcare, and



MPAT, a local collaborative of manufacturers in Hastings. They will play a vital role in the implementation of the CTE curriculum.

Through the utilization of local reVISION teams, a regional steering committee, and the leadership of the Educational Service Unit, the four school districts will have the ability to collaborate and to stay on track, committed to the goal of improving and enhancing Career and Technical Education (CTE) for all the students in our centralized region.

While collaboration between four school districts in a manner such as this is unprecedented; the most unique feature of this technological and curricular addition (zSpace) to our Career and Technical Educational programs is that we are bringing in a completely new hands-on experience. This approach to CTE is currently only available in a small number of metropolitan schools in Nebraska. This program allows us to give our students an opportunity to grow and learn in a way that is simply not done in rural Nebraska. At least, it is not done yet!

Section 5: Budget Proposal (4 School Districts, eligible for \$100,000 each)

| Activity Budget: Activity # 1-3 | | |
|--|----------------------------------|--------------------------------------|
| Expenditure | Unit Cost | Total |
| Salaries – Specified by Position (Object Code 100) | | |
| None | \$0 | |
| Employee Benefits – Specified by Position (Object Code 200) | | |
| None | \$0 | |
| Purchased Professional & Technical Services – (Object Code 300) | | |
| Substitute reimbursements for professional development (2 days) in technology use, alignment to industry, and curriculum development: <i>Adams Central: HS Science, STS, and/or Technology Coordinator 2 teachers at \$133.00 substitute reimbursement per day for 2 days</i> <i>Doniphan-Trumbull: HS Science, STS, and/or Technology Coordinator 2 teachers at \$120.00 substitute reimbursement per day for 2 days</i> <i>Harvard: HS Science, STS, and/or Technology Coordinator 2 teachers at \$124.00 substitute reimbursement per day for 2 days</i> <i>Kenesaw: HS Science, STS, and/or Technology Coordinator 2 teachers at \$120 substitute reimbursement per day for 2 days</i> | \$532 \$480 \$496 \$480 | \$1988.00 |
| Other Purchased Property Services/Other Purchased Services – (Object Code 400/500) | | |
| See Table Below | | \$156,769.00 |
| Supplies - (Object Code 600) | | |
| None | \$0 | |
| Capital Assets [Equipment Items >\$5,000] – (Object Code 700) | | |
| None | \$0 | |
| Indirect Costs | | |
| | | \$1243.00 |
| ACTIVITIES TOTAL | | \$160,000.00 |

| Software: License Renewals | Quantity (#AIO Units) | Cost per AIO zSpace Unit | Total |
|---|-----------------------|--------------------------|-------|
| Health Science & zSpace: https://zspace.com/industrycredentials/?nav=hs | | | |



| | | | |
|--|----|---------------------|------------------------|
| EDU-SW-CHM-01- Annual AIO SW License: VIVED Chemistry 12 | 30 | \$318.75 | \$9,562.50 |
| EDU-SW-CPS-01- Annual AIO SW License: Newton's Park, Franklin's Lab, and zSpace 12 Experiences | 30 | \$159.38 | \$4,781.40 |
| EDU-SW-CSA-01- Annual AIO SW License: VIVED Science 12 | 30 | \$318.75 | \$9,562.50 |
| EDU-SW-ECG-01- Annual AIO SW License: Virtual ECG Training Application 12 | 30 | \$297.50 | \$8,925.00 |
| EDU-SW-GCA-01- Annual AIO SW License: GTAFE VR Canine Anatomy VR Training system 12 | 30 | \$262.50 | \$7,875.00 |
| EDU-SW-VBD-01- Annual AIO SW License: Visible Body Human Anatomy Atlas 12 | 30 | \$150.00 | \$4,500.00 |
| MED-SW-CSA-01- Annual AIO SW License: VIVED Anatomy | 30 | \$318.75 | \$9,562.50 |
| Software: NEW Licenses | | Quantity | Cost per |
| Skilled & Technical Sciences & zSpace: https://zspace.com/industrycredentials/?nav=am | | (#AIO Units) | AIO zSpace Unit |
| | | | Total |
| EDU-SW-CAR-02- Annual AIO SW License: GTAFE Virtual Automotive Expert, Mechanic, and 12 | 30 | \$600.00 | \$18,000.00 |
| EDU-SW-GAF-01- Annual AIO SW License: GTAFE Electric Automotive Mechanic & Hybrid 12 | 30 | \$400.00 | \$12,000.00 |
| EDU-SW-MIM-02- Annual AIO SW License: Mimbus Wave NG Welding Application w/ basic Vulcan Welding Management System Access for up to 20 students (Includes GMAW and SMAW process) | 30 | \$1,800.00 | \$54,000.00 |
| MIMBUSA Wave NG Welding Simulator Wand (v. 2) | 30 | \$600.00 | \$18,000.00 |
| Total: | | | \$156,768.90 |

Section 6: Supplemental Documents

- zSpace Quote: <https://bit.ly/3jx0sD9>
- Learning in the Digital Age: A Review of the Research on Innovative Technologies: www.bit.ly/digitalagelearning
- zSpace **Overview of CTE Learning Applications:** www.bit.ly/zSpaceCTE
- Pictures of CTE Staff, Administrators, and Community Stakeholders experiencing zSpace in action on April 24th, 2019: www.bit.ly/ESU9_Pics



| | | |
|----------------|------------------------------------|--|
| School: | Community Engagement Notes: | 2018-2019 Career Interest Data: |
|----------------|------------------------------------|--|



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| Adams Central: | www.bit.ly/AC_Notes | <p>Adams Central High School O*NET Survey Responses</p> <table border="1"> <caption>Adams Central High School O*NET Survey Responses</caption> <thead> <tr> <th>Career Cluster</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Human Services and Business</td> <td>25.1%</td> </tr> <tr> <td>Business, Marketing, and Management</td> <td>18.3%</td> </tr> <tr> <td>Health Systems</td> <td>18.0%</td> </tr> <tr> <td>Agriculture, Food & Natural Resources</td> <td>14.5%</td> </tr> <tr> <td>Communication & Information Systems</td> <td>7.0%</td> </tr> <tr> <td>Industrial Manufacturing and Engineering</td> <td>6.2%</td> </tr> </tbody> </table> | Career Cluster | Percentage | Human Services and Business | 25.1% | Business, Marketing, and Management | 18.3% | Health Systems | 18.0% | Agriculture, Food & Natural Resources | 14.5% | Communication & Information Systems | 7.0% | Industrial Manufacturing and Engineering | 6.2% | | | | | | | |
|---|--|--|----------------|------------|-------------------------------------|----------------|-------------------------------------|-------|-----------------------------|-------|---------------------------------------|--------------------|--------------------------------------|------|---|------|----|--|---|----|------------------|---|----|
| Career Cluster | Percentage | | | | | | | | | | | | | | | | | | | | | | |
| Human Services and Business | 25.1% | | | | | | | | | | | | | | | | | | | | | | |
| Business, Marketing, and Management | 18.3% | | | | | | | | | | | | | | | | | | | | | | |
| Health Systems | 18.0% | | | | | | | | | | | | | | | | | | | | | | |
| Agriculture, Food & Natural Resources | 14.5% | | | | | | | | | | | | | | | | | | | | | | |
| Communication & Information Systems | 7.0% | | | | | | | | | | | | | | | | | | | | | | |
| Industrial Manufacturing and Engineering | 6.2% | | | | | | | | | | | | | | | | | | | | | | |
| Doniphan-Trumbull | www.bit.ly/DT_cteNotes | | | | | | | | | | | | | | | | | | | | | | |
| Harvard: | www.bit.ly/Harvard_cteNotes | <p>Percentage Top 3 Interest Choice</p> <table border="1"> <caption>Percentage Top 3 Interest Choice</caption> <thead> <tr> <th>Cluster</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Business, Marketing, and Management</td> <td>21%</td> </tr> <tr> <td>Health Systems</td> <td>20%</td> </tr> <tr> <td>Human Services and Business</td> <td>17%</td> </tr> <tr> <td>Communication & Information Systems</td> <td>15%</td> </tr> <tr> <td>Agriculture Food & Natural Resources</td> <td>13%</td> </tr> <tr> <td>Industrial, Manufacturing & Engineering Systems</td> <td>14%</td> </tr> </tbody> </table> | Cluster | Percentage | Business, Marketing, and Management | 21% | Health Systems | 20% | Human Services and Business | 17% | Communication & Information Systems | 15% | Agriculture Food & Natural Resources | 13% | Industrial, Manufacturing & Engineering Systems | 14% | | | | | | | |
| Cluster | Percentage | | | | | | | | | | | | | | | | | | | | | | |
| Business, Marketing, and Management | 21% | | | | | | | | | | | | | | | | | | | | | | |
| Health Systems | 20% | | | | | | | | | | | | | | | | | | | | | | |
| Human Services and Business | 17% | | | | | | | | | | | | | | | | | | | | | | |
| Communication & Information Systems | 15% | | | | | | | | | | | | | | | | | | | | | | |
| Agriculture Food & Natural Resources | 13% | | | | | | | | | | | | | | | | | | | | | | |
| Industrial, Manufacturing & Engineering Systems | 14% | | | | | | | | | | | | | | | | | | | | | | |
| Kensaw | www.bit.ly/Kenesaw_Notes | <table border="1"> <caption>Health Science Pathways</caption> <thead> <tr> <th>Pathway</th> <th>Count</th> <th>Percent</th> </tr> </thead> <tbody> <tr> <td>Health Science</td> <td>51</td> <td>10%</td> </tr> <tr> <td>Therapeutic Services</td> <td>21</td> <td>4%</td> </tr> <tr> <td>Health Informatics</td> <td>11</td> <td>2%</td> </tr> <tr> <td>Diagnostics Services</td> <td>11</td> <td>2%</td> </tr> <tr> <td>Biotechnology Research and Development</td> <td>5</td> <td>1%</td> </tr> <tr> <td>Support Services</td> <td>1</td> <td>0%</td> </tr> </tbody> </table> | Pathway | Count | Percent | Health Science | 51 | 10% | Therapeutic Services | 21 | 4% | Health Informatics | 11 | 2% | Diagnostics Services | 11 | 2% | Biotechnology Research and Development | 5 | 1% | Support Services | 1 | 0% |
| Pathway | Count | Percent | | | | | | | | | | | | | | | | | | | | | |
| Health Science | 51 | 10% | | | | | | | | | | | | | | | | | | | | | |
| Therapeutic Services | 21 | 4% | | | | | | | | | | | | | | | | | | | | | |
| Health Informatics | 11 | 2% | | | | | | | | | | | | | | | | | | | | | |
| Diagnostics Services | 11 | 2% | | | | | | | | | | | | | | | | | | | | | |
| Biotechnology Research and Development | 5 | 1% | | | | | | | | | | | | | | | | | | | | | |
| Support Services | 1 | 0% | | | | | | | | | | | | | | | | | | | | | |

Quotes Aligning Economic Regional Assessment Data to the Grant Proposal for 2020-2021:

Size, Scope, and Quality:

“Upgrade present facilities mirroring business/industry needs.” (Central)

“Determine how to provide instruction in many of the CTE clusters with limited number of students and staff and/or staffing for these classes.” (Central)

“Needs facilities upgrades, i.e. computer labs, up-to-date software, industry specific resources, and CTE materials.” (Grand Island)

Recruiting, Retaining, and Training:

“Provide professional development and mentoring of faculty with industry professionals.” (Central)



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Work-based Learning:

“Development of advisory Committees with local business can help define curriculum for use in the classroom that is industry specific.” (Grand Island)

