



CAREER WORKFORCE ACADEMY

PROGRAM PRIORITIES AND CURRICULUM DEVELOPMENT

**STRATEGIC PLAN – PHASE II
MAY 9, 2019**

PROGRAM PRIORITIES AND CURRICULUM DEVELOPMENT

The vision of a Career Workforce Academy (CWA) began in 2016 with a purpose to design education that is responsive to changing employer needs and to increase learner success. This desire was the catalyst for collaboration amongst area secondary schools and two-year colleges. In phase one, career awareness, exploration and preparation for K-12 learners and adults were identified as key elements in the CWA Strategic Plan, May 2018. These elements serve as foundational elements in the research and design of the CWA's program and curriculum identification process for phase two 2019.

As stipulated in the **CWA Strategic Plan - Initiative #6, Curriculum Development and Implementation** are critical to achieving vision outcomes of the Academy. Alignment of the curriculum to student interests, skill sets necessary to fulfill the needs of business and industry, and alignment between secondary and post-secondary are also essential to the design. Curriculums were to be organized around identified career clusters and meet state educational standards and/or certification requirements. Curriculums will also need to be fluid, be more responsive to changing employers and student needs, and have the ability to adjust career shifts.

In order to gain a broad consensus of the potential programs and curriculum through the Career Workforce Academy (CWA), Flint Group was enlisted to facilitate stakeholder input sessions with area K-12 schools and two-year colleges. Participants included: Central Cass, Fargo, Kindred, Moorhead, Northern Cass, and West Fargo Public Schools, along with Minnesota State Community and Technical College-Moorhead (M State-Moorhead) and North Dakota State College of Science (NDSCS).

Representatives were engaged in a process to identify and prioritize initial and future curriculums for the CWA. The phase two desired outcomes were to address the following CWA Strategic Plan - Initiative #6 goals:

Goal 1. In collaboration with business and industry, identify clusters and skills required.

1.1 Confirm initial clusters.

- Manufacturing and STEM
- Information technology
- Health science pathway
- Architecture and construction
- Ag and transportation
- Business and hospitality

1.2 Set up a curriculum team from all three stakeholder groups.

- Align curriculum to defined employer-based, student interest and career pathways
- Develop curriculum to attain clear pathway to graduation and/or industry third-party credentials

- 1.4 Understand employer skill needs and gaps to ensure proper development.**
 - Conduct study to determine employer needs
 - Identify how work-based learning may differ among industries and adjust accordingly
 - Research current knowledge about existing industry-adopted examples to support ongoing conversation with employers
- 1.6 Reduce duplication among training providers.**
 - Encourage collaboration between colleges and other training providers

Goal 2. Match curriculum with cluster group needs.

- 2.1 Review existing curriculum.**
 - Determine areas where curriculum is insufficient

Goal 7. Create new programs or utilize existing program for expanding curriculum needs.

- 7.1 Determine what the ongoing and expanding needs are**
- 7.2 Determine if there is enough student interest to continue to expand curriculum**

Goal 9. Determine location of course offerings (what is going to be offered where).

- 9.1 Set up committee to develop matrix on existing course offerings.**
 - Work with curriculum team to develop policy on distribution of courses
 - Establish procedure to regularly review course distribution

To accomplish this, Flint conducted input sessions with K-12 schools, M State-Moorhead, and NDSCS representatives. Groups studied current and future industry workforce trends and concluded with a combined input and feedback session with all three groups. The report outlines findings and preliminary recommendations toward initial CWA curriculum.

Report Outline

1. The Assignment
2. Process
 - a. Input Session K-12
 - b. Input Session NDSCS
 - c. Input Session M State-Moorhead
 - d. Combined Input and Feedback Session
3. Recommendations
 - a. Career Workforce Academy Concept
 - b. Career Pathway Learning Continuum
 - c. Delivery System
 - d. Curriculum Offerings
 - e. Advancing the Vision - Career Awareness and Education
4. Conclusion
5. Appendix 1

THE ASSIGNMENT

The scope of work proposed led us through a collaborative, consensus-building approach for alignment and directional outcomes. OUR PROPOSED WORK INCLUDED THE FOLLOWING ELEMENTS:

1. Discovery
 - a. Conduct sessions with education partners to ascertain current training programs, course offerings, and their vision for new programs at the academy.
 - b. Conduct input sessions with selected team members to gain knowledge of cluster group industry needs.
 - c. Work with local groups to understand the current information available and other organizations' discussions on workforce training.
2. Share findings with input session stakeholders for feedback.
3. Draft preliminary findings and a final report for the CWA Steering Committee for refinement, approval and direction.
4. Write final report.

Note: The original Scope of Work included interviews with industry representatives to further understand current and future workforce needs. Due to budget restrictions, these interviews were eliminated. Also eliminated were the student interviews, as the committee felt they had a grasp of student awareness levels and felt they could address this in ongoing current research efforts. Added to the Scope of Work was M State-Moorhead, including an input session, their involvement in the joint session and their program offerings. Timelines were adjusted in order to accommodate each group's input session and the addition of M State-Moorhead.

THE PROCESS – INPUT SESSIONS

Three stakeholder input sessions were conducted with representatives from each of the educational groups. Each group followed a similar agenda. Steps 1-3 were identical and reported below. Steps 4-7 were specific to each group and reported on under their specific session.

1. Review Strategic Plan and Initiative 6
2. Career cluster groups identified
3. Review labor statistics
4. Analyze current K-12 programs and courses
5. Collaboration areas (gaps and duplications)
6. Criteria for regular review of courses
7. Education on career pathways (discussion)

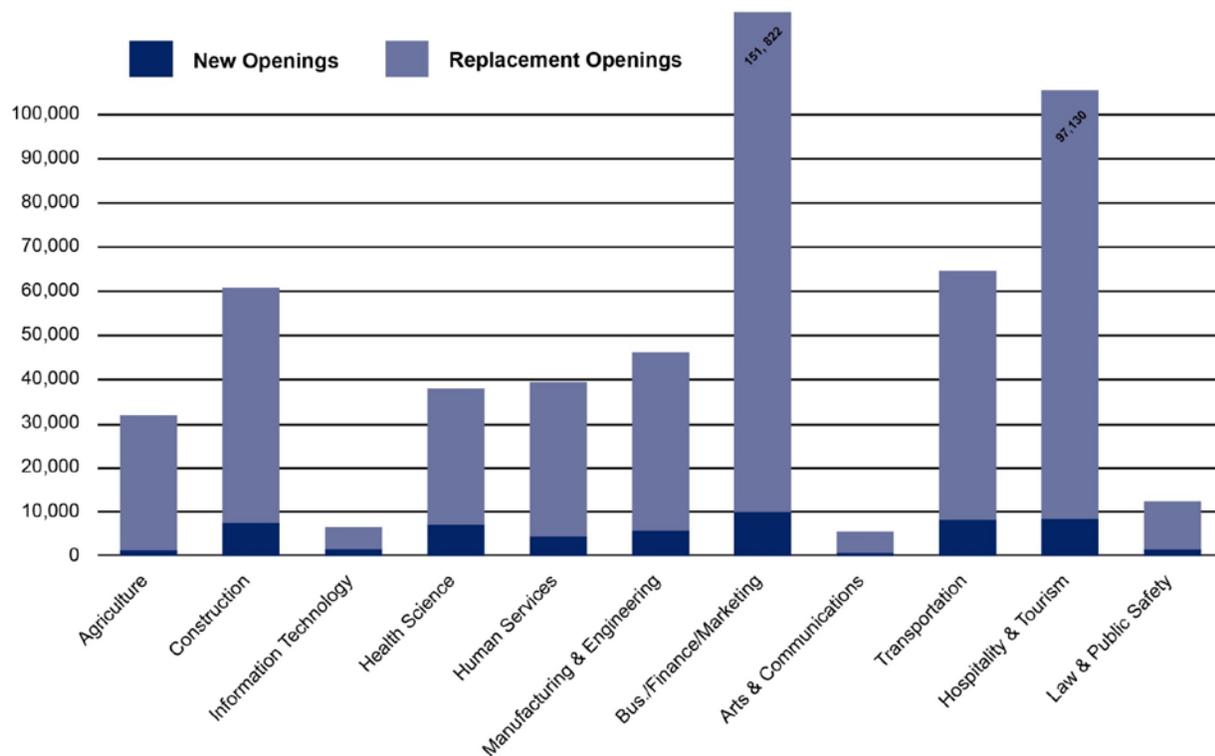
Career Cluster Groups

There was discussion around the identification of the career cluster groups, how they were formed and the overlap of jobs between each cluster. Examples included the need for transportation workers in almost all clusters, health care needs in all clusters, and IT positions open in every cluster. There was a general confirmation of these clusters and the formation of workforce needs under each of them.

Industry Labor Needs

We spent considerable time reviewing industry needs, with the emphasis on identifying careers, programs and classes that will help fill regional job openings now and into the near future (most labor reports went through 2026). These reports indicated that openings in regions served in NW Minnesota and eastern ND were very similar. High demands were found in Health Services, Hospitality and Tourism, Business Management and Administration, Transportation, Food Prep, Manufacturing, Architecture, and Construction; based on these reports, all will be in critical need. Openings included current new growth openings, exit worker openings and occupational transfer openings.

Projected 2025 Job Openings



Source: Labor Market Information Center, Job Service North Dakota

We also looked at input from CTE advisory committees. Many of the occupational needs they listed were in line with studies and analysis completed by North Dakota Job Service, Minnesota Department of Economic Development, and various regional reports. The advisory groups put much emphasis on soft skills and the need in most occupations to include them as part of a student's career path. (Note: the soft skills term has taken on many implications in the education world. It is important that it is defined with specific skill sets and what the industry needs.) Specifically mentioned were professional communications, business acumen, writing, and computer skills. The discussion around a student's approach to the workplace revealed many thoughts on how skill learning is not being applied to areas such as critical thinking, problem solving, communication skills, and the ability to work in a team environment. In addition, industry representatives also called out noticeable absence of pride in work, eagerness to learn, dependability and work ethic.

The following were specific careers identified as having high employment needs:

- Health Sciences: MLT, surgical technicians, CNA, LPN, RN, medical lab scientists, health care environmental services, dietary services
- Construction: carpenters, plumbers, electricians, all building trades
- Manufacturing: machining, welding, automated manufacturing, robotics
- Marketing: web designers, digital marketing, content writers, videographers, market research, social media, creative arts
- Business: sales and marketing, all entry levels, culinary, programmers
- Transportation: service technicians (diesel and auto), body shops, commercial drivers
- Agriculture: producers, agronomic technicians, animal science technicians, sales, ag mechanics, precision agriculture technicians, field techs, farm and ranch management
- Information Technology: network technicians, cyber security specialists, coders, web designers, programming
- Arts and Communications: varied occupations requiring creative skills, hospitality workers and management, culinary, technical writers, editing, entertainment industry
- Transfer Options: pre-programs for baccalaureate or professional degrees such as education, healthcare, criminal justice, engineering, computers, business

K-12 Input Session

The K-12 group was comprised of representatives from: Central Cass, Fargo, Northern Cass, Kindred, Northern Cass, Moorhead, and West Fargo. Stakeholders included superintendents, high school principals, and one counselor. Representatives reflected on proposed CWA cluster areas and were asked to consider student interest, current enrollments and industry needs for

potential CWA programs. A list of current class offerings by school district, M State-Moorhead, and NDSCS was supplied.

The following are K-12 group feedback, comments, or needs by career cluster:

- Agriculture received the lowest priority rating from most of the schools, although popular with schools currently offering the program. Schools reporting low interest do recognize an industry need and potential for course offerings through the “academy” to increase interest and access to classes for more students in the region. Many agriculture careers are intertwined with other career clusters, such as manufacturing; therefore, it was recommended that terminology and curriculum in this cluster be further defined with more input from industry input.
- Manufacturing showed moderate need by schools. Technology, engineering, automated systems and welding were listed as popular classes, with demand on the rise. Space and cost are an issue at district locations, as well as the need for qualified instructors. Stakeholder comments reveal that CWA offerings may contribute to student interest and the ability to fill classes with the sharing of students.
- Business and Finance most schools indicate high school students are interested in business. Marketing education was highly rated and popular as it fits with many cluster areas, including sales and hospitality. All schools have business course offerings on site. There is a desire to redesign course offerings at three high schools in the business areas. All agree business and marketing are high demand industry clusters. Some felt a comprehensive approach is needed in each high school because of the high student demand. There would be a need to evaluate how the “academy” could or would align with secondary, two-year and four-year programming in this cluster to create better alignment for programs.
- Construction introductory classes are currently offered at most schools. All rated this as a high need area, except for two high schools who currently offer advanced construction classes. Course offerings varied greatly by district based on course instructors. HVAC, plumbing, electrical, drafting, construction management, electrical technology are high areas of employment and were recommended as options to be considered at the “academy.”
- Transportation comments varied by district. Aviation was rated high by three high schools, with three indicating less interest. This program was not deemed cost-effective by some schools. Auto mechanics showed high interest at two high schools with others rating it lower. Diesel technology was also rated low due to cost of delivery. Two high schools confirmed interest in continuing recreational power sports due to high student success. Overall, comments reveal schools value transportation programs at a higher rate if they are a hosting site, as students can

- participate. Hosting sites recognize the high cost of operation, along with concern in securing highly qualified staff. Non-hosting sites reveal student interest for programs, yet transportation and time as a barrier for student participation.
- Information Technology varied due to availability of instructional staff. All schools indicated high student interest and high industry need. Some schools are participating in the Microsoft TEALS, a Microsoft teacher training program, and are interested in exploring further advanced offerings. Both M State-Moorhead and NDSCS have significant course offerings in this area for alignment.
 - Health Sciences is offered at most districts and there is a desire to keep courses at the high school due to a high concentration of student participation. High schools without direct access to health science curriculums reported a desire to have them available at their school or a central location. There are opportunities to provide advanced programming for students, yet staff qualifications, lab space, and teacher time create some limitations.
 - Arts and Communications was suggested to change to hospitality and tourism. Introductory photography and graphic communications are offered at some high schools, yet programs do not fully exist at any site.
 - General Education areas showed high interest in languages and varied rankings in science and math. One district expressed interest in exploring the integration of math and science – as they relate to the health sciences and business program areas.
 - Other areas identified by the K-12 group included public safety (with high demand), veterinary (possible health science cluster), and sound system engineers. Most of the rankings indicated a desire for culinary courses. Cosmetology has also been suggested as an area of interest by some schools.

Program or Class Identification

The K-12 group provided preliminary input on courses that may be offered for grades 10, 11, 12, 13, and 14+. These suggestions will be incorporated with those provided by M State-Moorhead and NDSCS to develop a master list of current academic offerings in the region. This list is included in the combined meeting results area of this report.

NDSCS Input Session

Academic leadership from NDSCS also evaluated the cluster areas. Their overall indication of need was generally higher than the K-12 rankings.

- Agriculture received an average rating. Comments were related to the importance of agriculture in the region. It was noted that many other cluster areas support agriculture and a definition for agriculture is necessary.
- Manufacturing was rated high. Automated manufacturing indicated a strong need but needs more exposure in high schools. Welding has high needs currently but will go down as automation takes over more of the industry.
- Business and Finance was rated high. It was noted that there are numerous areas for two-year degrees within the cluster. Marketing careers had similar comments. Many career opportunities can be enhanced with a four-year degree which tends to be desired by many employers.
- Construction rated high and career opportunities are expanding rapidly in the FM area, but can be cyclical and it was indicated that high school's numbers in this area are down. Current classes have good enrollment but many of these occupations are trained on the job.
- Transportation received middle ratings for this group. Growing interest for aviation (drone) and diesel but needs career exposure at the high school level. This cluster has strong industry support. Automotive and recreational powersports are available at many high schools. Many of these occupations are trained on the job.
- Information Technology was rated high in need but lacks student interest and enrollment. This is a critical need area with more demand on the software engineering aspect of IT. Computer programming will continue to evolve. Cyber security is becoming an area of greater emphasis.
- Health Science has a high need in FM area. Critical shortages exist now and are projected well into the future. There is high student interest, and this should be a high priority offering. It is important to note that the health science cluster includes many health related careers in addition to nursing.
- Arts and Communications changed to Hospitality and Tourism. Culinary agreement with K-12 input.
- General Education rated high as many of the soft skills (language, ELL, oral and written communication, teamwork, etc.) are needed in all clusters. There are currently many offerings in this area.
- Other indication was public safety (e.g., law enforcement, criminal justice, education).

M State-Moorhead Input Session

This was a smaller group with limited time – many of the comments came after the group session. They did go through the rating assignment and course evaluation. The rating findings are below.

- Agriculture was rated the lowest by the group, finding little interest and shrinking need. There is a need for terminology clarity for ag career programs, as it covers many areas (e.g., IT, sales, GIS, science, etc.).
- Manufacturing saw a higher need in the technology and engineering area but only for the support careers associated with four-year degrees. All students are hired before graduation. In the automated area, robotics was mentioned but the area was rated low. Welding was perceived as a short-term need.
- Business and Finance was rated in the middle range of need with social and digital area called out as a high need in the marketing sector.
- Construction was rated high for immediate need and based on current enrollment. Currently M State-Moorhead offers a two-week summer Herdina intro to construction trades for ages 15-21. Certificates could be awarded in specialty areas taught at M State-Moorhead. Stackable certificates in framing, roofing, concrete, siding, and tile could be offered.
- Transportation areas rated the highest were auto and diesel. An intro to auto and diesel at high schools or the academy facility with transferability to M State-Moorhead was suggested. Automotive NitroX summer camp to be offered at M State-Moorhead summer of 2019 and they are exploring a diesel camp. Currently offer a two-year automotive program sponsored by business partners. They also indicated a need for more certificates in the auto and diesel area.
- Information Technology needs to develop a pipeline so there is clear understanding of career paths. There is high need and interest. Security area, network administration, and programming, etc.
- General Education was ranked higher in the math and science areas. M State-Moorhead is open to exploring this further as there are a lot of options in these two areas. Also, a need is recognized for languages as they are aligned with languages in our region.
- Health Science is a major area for M State-Moorhead offering a core curriculum. All are needed, and they could fill the day with classes.
- Arts and Communications noted two areas – culinary and criminal justice.

Joint Session – Curriculum Identification

The participants at the final combined input and feedback meeting were representatives from K-12, M State-Moorhead, and NDSCS. Flint reviewed the results from previous input sessions, by cluster groups, course/program ratings, and industry needs.

Discussion was held on the value of creating programs of study (POS) as an essential element of the CWA, career pathways, and the impact for all stakeholders.

Representative feedback indicates:

- The POS represent the effort to better align high school and post-secondary education with the demands of the changing economy and provide a more coherent pathway for youth as they move toward adulthood.
- Shaped by labor market demand, POS align secondary and post-secondary curricula and offer students the ability to explore careers, earn industry recognized credentials and participate in dual credit-earning opportunities, thus potentially shortening their time to a post-secondary degree.

Representatives noted some potential challenges for implementation of the CWA. Future scheduling issues will surface once initial career clusters and programs of study are confirmed, and location determined. School districts may have to move to block scheduling in some cases in order to accommodate CWA course offerings. The CWA will have to look at full- or half-day programs to accommodate high school scheduling and transportation to and from high schools.

Throughout the process, groups recognized that programming and curriculum currently exist across the region in all career clusters. The existence of the programs, facilities, and staffing may influence the recommendation and final programming.

A graphic was provided to illustrate cluster crossover of classes that support multiple program areas. Groups were challenged to discuss and identify potential CWA curriculum courses for initial implementation and future expansion.

Input was solicited on career awareness strategies starting in the lower grades and through high school as reflected in the CWA Learning Continuum. This information will be further refined by K-12 and post-secondary representatives and as the CWA continues to evolve.

RECOMMENDATIONS

The Association of Career and Technical Education (ACTE) has developed a research-based quality framework that identifies the key components of a high-quality CTE programming. The framework provides criteria for programming that spans secondary and post-secondary career and technical education.

The CWA will utilize the ACTE frameworks to guide recommendations based on our analysis of the input of all stakeholders. Further discussion will help refine the final report. We have broken the recommendations into five key areas.

1. Career Workforce Academy Concept – **The CWA will provide a highly coordinated and collaborative approach** that serves varied student learners while helping meet the workforce needs of the region.

The Career Workforce Academy is an educational delivery model that utilizes an organized, facilitated and collaborative approach for all levels of students to explore careers, establish a career pathway, gain or enhance employable skills, and secure employment. Offerings will be located at participating school district facilities, the CWA Center, NDSCS-Wahpeton, M State-Moorhead, and by remote delivery when appropriate.

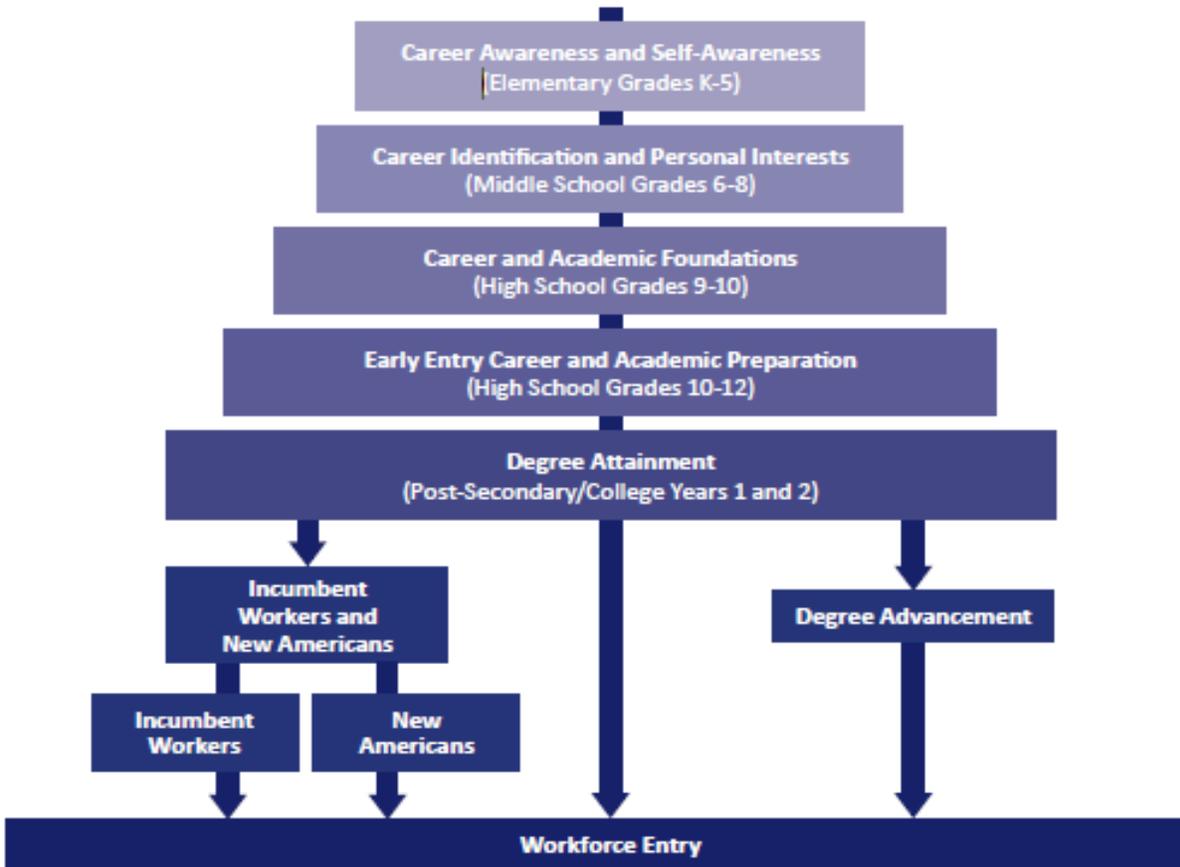
The CWA will provide needed coordination, support services and expanded delivery activities for secondary, post-secondary and adult worker classes in a new facility specifically designed for meeting the varied needs of the CWA. These needs are stated below:

- Provide exposure to multiple career paths for all levels of K-14 students.
- Present more opportunities for students to sample and experiment within a variety of careers.
- Create opportunity for those interested in a technical degree.
- Create a path for incumbent workers and new Americans for a new career.
- Provide appropriate facilities and equipment for hands-on career training.
- Focus on the region's workforce and employer.
- Engage with business and industry to strengthen K-14 relationships and programming.

The strength of the CWA will be based on the Career Pathway Model that draws upon collaboration between K-12 partners, business partners and post-secondary partners.



2. Career Pathway Learning Continuum – **The CWA will provide an integrated and developmental approach to serving all levels of learners.** It is based on serving students throughout the lifespan.

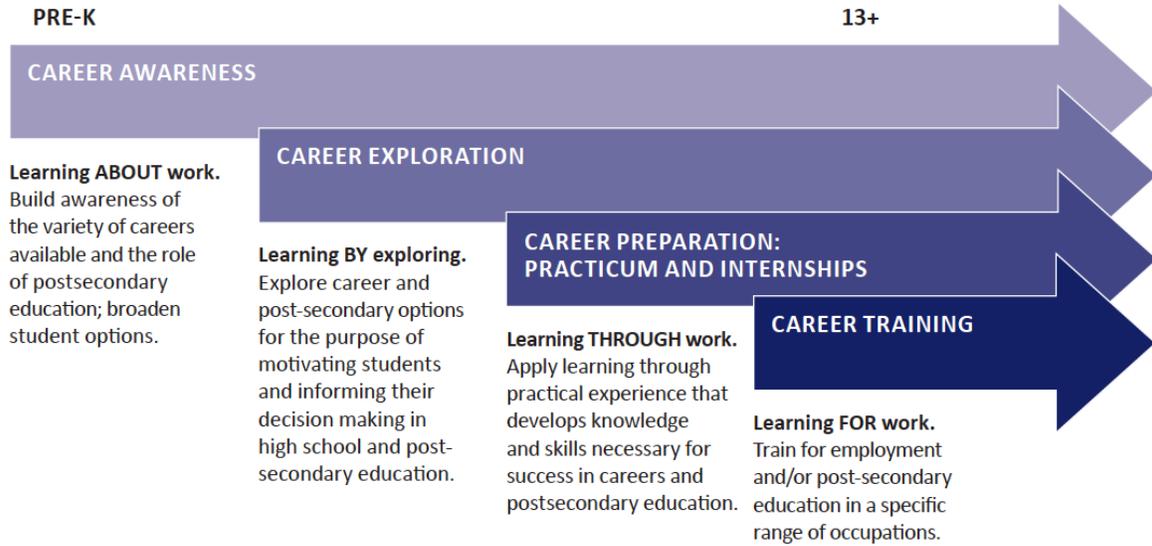


In developing our recommendation for the CWA delivery concept, we considered the courses and classes at all levels, from high school offerings through adults. This concept received a preliminary thumbs-up from participants in the input session.

Academic programming will follow the continuum as indicated in the graphic below. It will expose younger students to various jobs and begin identifying interest levels of the students; the next level will provide career choice exploration opportunities and help formulate their decision process of further career education; and lastly the program will give students the opportunity to have practical experience by learning through actual work experience. It will encourage students to participate in site visits and “on-the-job” training experiences. Opportunities for post-secondary degree attainment, industry certifications, and workforce training for New Americans or incumbent workers will also be facilitated through the CWA.

3. Delivery System – The CWA will provide a multi-faceted delivery system that leverages varied locations and delivery strategies.

Academy Learning Continuum



Instruction, educational activities and training will occur at the location and in the delivery mode that bests meets the needs of the learners and the activity being provided. Courses can be taught by the high school faculty, college faculty, via face to face, video, or online. Specifically, secondary offerings will be at participating high school facilities, at the CWA Center, at NDSCS-Wahpeton or at M State-Moorhead. Post-secondary offerings will be available at the CWA Center, NDSCS-Wahpeton or M State-Moorhead

Dual credit opportunities are a priority for CWA curriculum offerings, pathways for students to earn both high school and college credit toward a high school diploma, certificate or associate degree. Early entry coursework can motivate high school students to stay in school, improve high school graduation rates and creating a seamless transition from high school to college. Students who participate in dual credit have the opportunity to accelerate their college education as they engage in rigorous content and develop skills through advanced lab experiences, saving time and reducing their financial investment.

CAREER WORKFORCE ACADEMY Programming Model



CWA MODEL DEFINED

Career Workforce Academy - An overarching model for systemic coordination of curriculum, program alignment and business partnerships for the Center and satellite academies.

Satellite Academy - A school-based learning community providing academic and technical skills through a career-oriented pathway.

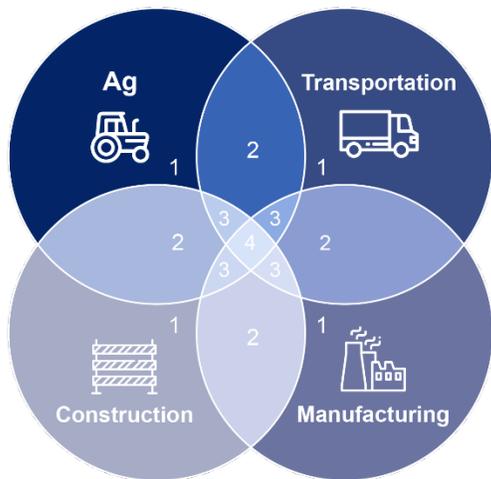
Career Workforce Center - A central location housing advanced secondary, post-secondary, adult workforce training solutions, and leadership coordination.

High School Satellites – CTE Foundations - Agriculture, Business, Construction, FACS, Graphics, Marketing, Health Science, Information Technology, Technology Education

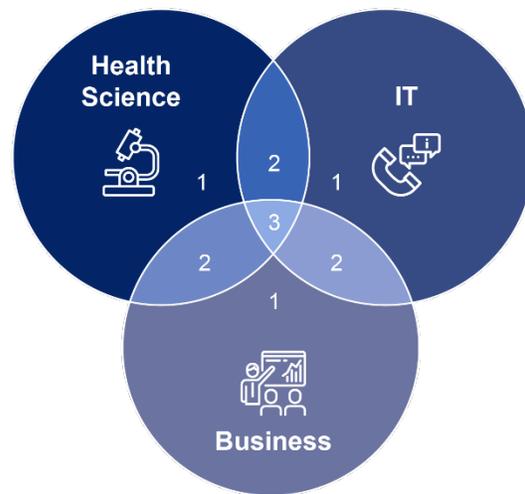
- Curriculum Offerings – A proposed listing of CWA courses, organized by industry cluster and delivery location, is attached as an appendix. In addition to the eight industry clusters, an additional cluster entitled Liberal Arts, Transfer and General Education was included. As stated previously, educational activities and training will occur at the location and in the delivery mode that best meets the needs of the learners and the activity being provided. Effectiveness of instruction and efficiency in delivery will be considered. Proposed offerings and locations listed in the appendix will be refined with the continued input of K-12, post-secondary and industry representatives. **See Appendix 1.**

Initial curriculum offerings were primarily identified through the input of K-12 and post-secondary participants. These are classes that would be initially offered through the CWA, with classes provided at varied locations. These offerings take into consideration both short- and long-term industry needs, institutional capabilities, and current student interest. In consideration of the courses recommended, we looked at cluster crossover. Many classes offered have educational and career implications in more than one cluster. This crossover happens as students explore all aspects of a career. A student interested in agriculture may look at courses in engineering and business and may want to learn more of the technical skills, like welding or UAS technology. This concept is reflected in the following diagram.

Cross Cluster Courses



Four Industry Clusters - Example



Three Industry Clusters - Example

1, 2, 3 and 4 indicate the number of industry clusters a selected course supports.

Academic offerings are dynamic in nature and will change to meet the evolving needs of the workplace. Although demand for a specific skill set may be recognized, student interest, space, instructor availability, and other resources will be weighed. Additionally, changes in industry needs may result in course offerings being modified. Flexibility and the ability to react quickly will be a hallmark of the CWA.

5. Advancing the Vision – Career Awareness and Education - The Career Workforce Academy will provide leadership and visibility in advancing the vision of a collaborative model focused on education and training workforce solutions. Building and sustaining community, industry and policy makers’ awareness and support for technical education, and the career opportunities available through such education, will be significantly enhanced by the creation of a CWA. The CWA and the resulting facility will provide an identifiable entity clearly focused on providing workforce education and training solutions.

Key components to successfully implement this recommendation include providing leadership and programming in the following areas:

- Actively involve community influencers
 - Chamber, GFMEDC, Marketplace for Kids, Fueling our Future, etc.
 - Community education groups, youth groups, Junior Achievement, etc.
- Actively involve parents, caregivers and other student influencers
 - Educate about career options and the impact on their children’s future
- Actively engage business and industry in career awareness, career exploration, career preparation, company specific training, and adult worker training or retraining
 - Work with all career cluster areas to identify and implement specific career exploration and awareness initiatives across the learner spectrum (K-12 through adult)
 - A wide array of potential activities were identified during the feedback sessions and will be made available to the CWA leadership for their consideration and use
- Actively provide programming designed to connect with high school graduates and/or young adults entering the workforce but lacking employable or technical skills
- Provide career pathway educational awareness activities for teachers, counselors and administrators in the broader educational community

Examples: roundtable discussions with industry experts, industry site tours, job shadows
- Provide coordinated and systematic career awareness and career exploration programming for K-12 students

Examples: industry presentations, industry site visits, hands on exploration activities, job shadowing, mentoring, enhancement activities, etc.

- Foster a strong connection between the secondary and post-secondary partners to ensure seamless and well-integrated programming

Examples: dual credit offerings, early college programs; curriculum alignment; shared professional learning; community and professional development activities; shared industry advisory committees, shared facilities/equipment, mentorships for new teachers, shared internship opportunities

- Shared marketing and public relations activities

Conclusion

The Career Workforce Academy is a proven, innovative educational model whose time has come for our region. The CWA has the potential to transform teaching and learning to the benefit of students, schools and colleges, the community, and employers. The identified proposed program offerings provide a foundation upon which to build the CWA model.

The Career Workforce Academy is a strong step in the journey to create an effective, efficient and enduring educational infrastructure that serves the needs of students, community, and the rapidly evolving workplace.

References and contributors

In the development of the Career Workforce Academy Program Priorities and Curriculum Development, background research and input sessions were facilitated by Flint Group. Additional information was obtained through CWA Steering Committee members, current career and technical education program advisory committee member feedback, and input from organizations engaged in coordinate input sessions, including:

- Cass County K-12 School Districts Superintendents and Secondary Principals
- M State – Moorhead President, Vice Presidents, Directors, and Faculty
- NDSCS Vice Presidents, Department Chairs, Deans, Instructional Leaders and Faculty

Career Workforce Academy

Proposed Listing of Academic Offerings



This document provides a proposed listing of courses, organized by industry cluster and delivery location. In addition to the eight industry clusters identified above, an additional cluster entitled Liberal Arts, Transfer and General Education is included. Proposed offerings and locations will be refined with the continued input of K-12, postsecondary and industry representatives.

March 28, 2019

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Agriculture Cluster

03/28/2019

Career Workforce Academy by Location

Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo High	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Secondary Courses													
Ag Intro Courses	C				C		C						
Foundations to Ag	C	VC	VC	VC	C		C	VC	VC	R			
World Ag	VC	VC	VC	VC	VC	VC	VC	VC	VC	R			
Plant Science I/Botany	C	VC	VC	VC	C		C	VC	VC	R			
Plant Science II/Botany	C	VC	VC	VC	C		C	VC	VC	R			
Small Animal Science I	C	VC	VC	VC	C		C	VC	VC	R			
Small Animal Science II	C	VC	VC	VC	C		C	VC	VC	R			
Vet Science I	C	VC	VC	VC	C		C	VC	VC	R			
Vet Science II	C	VC	VC	VC	C		C	VC	VC	R			
Ag Mechanical/Tech	C				C								
Post-Secondary Courses													
NDSCS													
AGRI 141 Principles of Ag Business										R		C	
ANSC 114 Intro to Animal Science										R		C	
PLSC 110 World Food Crops										R		C	
AGRI 275 Intro to Precision Ag										R		C	
MFG 110 Industrial Shop Practices										C-R		C	
M/State Moorhead													
BIOL 1107 Environmental Science Issues													C
BIOL 1108 Environmental Science Issues Lab													C
BIOL 1122 General Biology I													C
BIOL 1123 General Biology II													C
CHEM 1111 General Inorganic Chemistry I													C
CHEM 1112 General Inorganic Chemistry II													C
Post-Secondary Programs													
NDSCS													
Ag Business - AAS													C
Agronomy - AAS													C
Animal Science - AAS													C
Farm Management - AAS													C
Precision Agriculture - AAS													C
Ranch Management - AAS													C
M/State Moorhead													
Environmental Science - AS													C

Preliminary Recommendations

Business Management - Finance - Marketing - Hospitality Cluster

3/28/2019

Career Workforce Academy by Location													
Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Key: C = Currently offered E = Expanded offering (future) VC = Virtual Center (current) R = Recommended offering M = Move from present location VCE = Virtual Center expansion (future)													
Secondary Courses													
Intro to Business OR Basics of Business		C	C	C				C	C				
Accounting	C	C	C	C	C	C	C	C	C				
Accounting II	C	C	C	C		C		C	C				
Business Law		C	C	C				C	C				
Personal Law & Ethics						C							
Business Finance													
Personal Finance		C	C	C		C		C	C				
Computer Applications	C	C	C	C		C		C	C				
Web Design										R			
Web Design II										R			
Marketing I	C	C	C	C	VCE		C	C	C				
Management/Entrepreneurship	C	C	C	C	VCE	C	C	C	C				
Sports Marketing		C	C	C	VCE	C		C	C				
Store Manager		C	C	C	VCE	C	C	C	C				
Culinary Arts Classes - TBD										R			
Post-Secondary Courses													
NDSCS													
Business Administration and Management Classes													
ACCT 118 Applied Accounting										C-R		C	
ACCT 200 Elements of Accounting I										C-R		C	
ACCT 201 Elements of Accounting II										C-R		C	
ACCT 215 Business in the Legal Environment										C-R		C	
BADM 103 Leadership Techniques										C-R		C	
BADM 201 Principles of Marketing										C-R		C	
BADM 202 Principles of Management										C-R		C	
BADM 217 Promotion and Advertising										C-R		C	
BADM 230 Marketing Information Analysis										C-R		C	
BADM 234 Customer Service										C-R		C	
BADM 240 Sales										C-R		C	
BADM 244 Sales Seminar										C-R		C	
BADM 251 Personal Finance										C-R		C	
BADM 281 Organizational Behavior										C-R		C	
BADM 282 Human Resource Management										C-R		C	
BADM 291 Career Seminar										C-R		C	
BUSN 120 Fundamentals of Business										C-R	R	C	
BUSN 170 Entrepreneurship										C-R	R	C	
BUSN 254 Financial Statement Analysis										C-R		C	
BUSN 282 Professional Development										C-R		C	
CIS 101 Computer Literacy										C-R	C-R	C	
CSCI 116 Business Use of Computers										C-R	R	C	
Culinary Arts Classes - TBD													
TBD										R			
TBD										R			

Preliminary Recommendations

Academic Offerings														
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M/State Moorhead														
ACCT 1012 Principles of Bookkeeping														C
ACCT 1101 Payroll														C
ACCT 1108 Business Math and Calculators														C
ACCT 1120 Business Law														C
ACCT 1124 Spreadsheet Applications														C
ACCT 2201 Financial Accounting I Lab														C
ACCT 2202 Financial Accounting II Lab														C
ACCT 2203 Managerial Accounting Lab														C
ACCT 2210 Managerial Accounting														C
ACCT 2211 Financial Accounting I														C
ACCT 2212 Financial Accounting II														C
ACCT 2213 Managerial Accounting														C
ACCT 2215 Computerized Acct App														C
ACCT 2216 QuickBooks														C
ACCT 2217 Microsoft Dynamics GP														C
ACCT 2255 Income Tax-Individual														C
ACCT 2256 Income Tax-Business														C
ACCT 2620 Intermediate Accounting I														C
ACCT 2622 Intermediate Accounting II														C
ACCT 2640 Accounting Internship														C
ACCT 2800 Accreditation Council for Accountancy and Taxes or														C
ADMS 1100 Keyboarding I														C
ADMS 1110 Word Processing														C
ADMS 1112 Desktop Publishing														C
ADMS 1116 Business Communications I														C
ADMS 1120 Administrative Office Procedures														C
ADMS 1128 Records Management														C
ADMS 1130 Office Software Applications														C
ADMS 1190 Keyboarding II														C
ADMS 2124 Emerging Office Technologies														C
ADMS 2205 Advanced Word Processing														C
ADMS 2212 Integrated Office Software Applications														C
ADMS 2216 Business Communications II														C
ADMS 2240 Administrative Office Professional Internship II														C
BUS 1120 Spreadsheet & Database Concepts														C
BUS 1130 Introduction to Inventory Control and Purchasing														C
BUS 1141 Introduction to Business														C
BUS 1143 Office Procedures														C
BUS 1146 Personal Finance														C
BUS 1174 Principles of Banking														C
BUS 1175 Fundamentals of Investing														C
BUS 1300 Financial Statement Analysis														C
BUS 2150 Legal Environment of Business														C
BUS 2202 Management Information Systems														C
BUS 2204 Principles of Management														C
BUS 2206 Principles of Marketing														C

Preliminary
Recommendations

Academic Offerings													
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BUS 2220 Global Business													C
BUS 2275 Money and Banking													C
CULN 1200 Fundamentals of Baking and Pastry													C
CULN 1205 Theories of Baking and Pastry													C
CULN 1210 Fundamentals of Food Fabrication and Productio													C
CULN 1215 Theory of Food Fabrication and Production													C
CULN 1220 Fundamentals of Pantry Production													C
CULN 1230 Introduction to Professional Food Service													C
CULN 1240 Sanitation Certification													C
CULN 1250 Kitchen Math and Measurements													C
CULN 1260 Meats													C
CULN 1270 Culinary Nutrition													C
ENTR 1100 Introduction to Entrepreneurship													C
ENTR 1400 Opportunity Analysis													C
ENTR 2200 Entrepreneurial Field Studies													C
ENTR 2220 Business Ethics/Professionalism													C
ENTR 2222 Business Plan Development													C
HRES 1122 Human Resource Management													C
HRES 1126 Employee Processes													C
HRES 1130 Benefits Administration													C
HRES 1134 Training and Development													C
HRES 2204 Policy Administration													C
HRES 2212 Wage/Salary Administration													C
HRES 2224 Employee/Labor Relations													C
HRES 2254 Human Resource Systems and Portfolio Evaluation													C
MKTG 1040 Consumer Behavior													C
MKTG 1106 Professional Selling													C
MKTG 1110 Customer Service													C
MKTG 1116 Advertising and Promotion													C
MKTG 2204 Advanced Professional Selling													C
MKTG 2214 E-Marketing													C
MKTG 2218 Retail Management													C
MKTG 2230 Marketing Research													C
MKTG 2234 Computer Marketing Applications													C
MKTG 2236 Small Business Management													C
MKTG 2250 Strategic Selling and Account Management													C
MKTG 2290 Management, Marketing and Sales Internship													C
MKTG 2410 Marketing, Management, and Sales Capstone													C

Preliminary
Recommendations

Academic Offerings														
Key: C = Currently offered VC = Virtual Center (current) M = Move from present location VCE = Virtual Center expansion (future)	E = Expanded offering (future) R = Recommended offering	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moor- head	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Post-Secondary Programs														
NDSCS														
Administration and Finance - AAS											C-R	C		
Business Technology Mgmt - AAS (3rd year option)											C-R	C		
Marketing, Sales, and Hospitality - AAS											C-R	C		
Restaurant Management - AAS (3rd year option)											C-R	C		
Entrepreneurship - Certificate											C-R	C		
Finance - Certificate											C-R	C		
Management/Supervision - Certificate											C-R	C		
Sales - Certificate											C-R	C		
Culinary Arts - Diploma and AAS														
M/State Moorhead														
Business: Management, Marketing and Sales - AAS														C
Business: Marketing and Sales - Diploma														C
Fundamentals of Culinary Arts - Diploma														C
Human Resources - AAS														C
Human Resources - AS														C
Payroll Specialist - Diploma														C
Accounting - AAS														C
Accounting - Diploma														C
Accounting Clerk - Diploma														C
Administrative Office Assistant - Finance - Certificate														C
Administrative Office Assistant - Human Resources														C
Administrative Office Assistant - Legal														C
Administrative Support - Diploma														C
Business Entrepreneurship - AAS														C
Business Entrepreneurship - Diploma														C
Professional Sales Skills - Certificate														C
Purchasing and Inventory Management - Certificate														C
Social Media Management - Certificate														C
Supervisory Leadership Essentials - Certificate														C

Preliminary
Recommendations

Construction Cluster

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Career Workforce Academy by Location													
Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Key: C = Currently offered VC = Virtual Center (current) M = Move from present location VCE = Virtual Center expansion (future)													
Secondary Courses													
Woods I	C	C	C	C				C	C				
Woods II	C	C	C	C				C	C				
Construction I	C	C	C	C				C	C				
Construction II	C	C	C	C				C	C				
Woodworking & Cabinetry						C							
Advanced Cabinetry						C							
Exploring Carpentry						C							
Drafting & Technical Drafting						C		C					
Civil Engineering & Architecture (PLTW)		VC	VC	C		C				R			
Post Secondary Courses													
NDSCS													
Electrical Classes													
ECAL 101 DC Fundamentals										R	R	C	
ECAL 102 AC Fundamentals										R	R	C	
MFG 110 Industrial Shop Practices										C-R	R	C	
Plumbing Classes													
MFG 110 Industrial Shop Practices										C-R	R	C	
MSYS 101 Safety for Mech Syst Tech										R	R	C	
Architectural Drafting Classes													
ARCT 120 AutoCAD for Architecture										R	R	C	
ARCT 121 Revit Architecture										R	R	C	
UAS 111 Intro to UAS										R	R	C	
UAS 112 UAS Pilot Certification										R	R	C	
Building Construction Classes													
MFG 110 Industrial Shop Practices										C-R	R	C	
BCT 102 Core Curriculum for Construction										R	R		
BCT 222 Construction Safety										R	R	C	
Construction Management Classes													
ARCT 121 Revit Architecture										R	R	C	
CAD 120 Intro to AutoCAD										R	R	C	
BCT 222 Construction Safety										R	R	C	
UAS 111 Intro to UAS										R	R	C	
UAS 112 UAS Pilot Certification										R	R	C	
Land Surveying Classes													
CAD 120 Introduction to AUTOCAD										R	R	C	
CT 113 Introduction to Civil Design Applications										R	R	C	
UAS 111 Intro to UAS										R	R	C	
M/State Moorhead													
CADD 1000 AutoCAD Basics													C
COMM 1120 Introduction to Public Speaking													C
COMM 1130 Small Group Communication													C
CONM 1101 Construction Documents and Codes													C
CONM 1102 Site/Building Layout													C
CONM 1104 Construction Management Principles													C
CONM 1108 Principles of Estimating													C

Preliminary Recommendations

Academic Offerings													
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	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
CONM 1124 Building Systems													C
CONM 2204 Materials Testing													C
CONM 2210 Construction Scheduling													C
CONM 2212 Site Management													C
CONM 2213 Safety Management													C
CONM 2217 Computer Estimating and Bidding													C
CONM 2222 Construction Management Internship													C
ELEC 1100 Electrical Safety													C
ELEC 1102 Introduction to Electric Circuit Theory													C
ELEC 1104 Introduction to National Electrical Code													C
ELEC 1107 Introduction to Residential Wiring													C
ELEC 1108 Electrical Circuit Theory													C
ELEC 1110 Electric Motors and Generators													C
ELEC 1112 Residential Wiring													C
ELEC 1114 National Electrical Code													C
ELEC 1116 Conduit/Tool Applications													C
ELEC 1118 Electrical Services													C
ELEC 1122 Introduction to Electrical Materials													C
ELEC 1124 Introduction to Electrical Blueprint Reading													C
ELEC 1130 Electrical Blueprints													C
ELEC 2202 Heating/Cooling Controls													C
ELEC 2205 Introduction to Commercial Wiring													C
ELEC 2206 Introduction to Motor Control Applications													C
ELEC 2208 Programmable Logic Controllers													C
ELEC 2211 Electronic Motor Control													C
ELEC 2212 Commercial Wiring													C
ELEC 2214 Industrial Wiring													C
ELEC 2216 Motor Control Application													C
ELEC 2225 Transformers													C
ELEC 2248 Code Applications													C
ENGT 1126 Engineering Graphics													C
FIRE 1100 Introduction to Fire Service													C
FIRE 1106 Firefighter I and II													C
FIRE 1108 Firefighter I and II Skills													C
FIRE 1130 Technical Rescue													C
FIRE 1140 Fire Inspection and Code Enforcement													C
FIRE 1150 HazMat Operational													C
FIRE 1152 Building Construction													C
HVAC 1102 Duct Fitting Construction													C
HVAC 1103 Electricity for Heating, Ventilating and Air Conditioning													C
HVAC 1104 Heating, Ventilating, and Air Conditioning Electrical													C
HVAC 1128 Heating, Ventilating, and Air Conditioning Design													C
HVAC 1224 Gas and Oil Heating													C
HVAC 2202 Air Handling													C
HVAC 2212 Hot Water Heating													C
HVAC 2221 Heat Pump Theory and Operation													C
HVAC 2290 Heating, Ventilating, and Air Conditioning Interiors													C
MCDD 2220 Mechanical Engineering Drawing IV													C
PLBG 1101 Piping and Job Safety													C
PLBG 1103 Plumbing Trade Tools													C
PLBG 1115 Faucets and Fixtures													C
PLBG 1119 Materials and Fittings													C

Preliminary
Recommendations

Academic Offerings													
Key:	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
PLBG 1123 Plumbing Code I													C
PLBG 1125 Plumbing Lab I													C
PLBG 1131 Grade and Elevation													C
PLBG 1133 Blueprint Reading													C
PLBG 1135 Drainage, Waste and Venting													C
PLBG 1137 Water Distribution													C
PLBG 1139 Backflow Basics													C
PLBG 1141 Plumbing Code II													C
PLBG 145 Plumbing Lab II													C
REFR 1110 Refrigeration, Air Conditioning and Heating Principles													C
REFR 1112 Refrigeration, Air Conditioning and Heating Lab													C
REFR 2202 Commercial Refrig & A/C Principles													C
REFR 2204 Commercial Refrig & A/C Lab													C
REFR 2206 Commercial Electrical Principles													C
REFR 2208 Commercial Electrical Lab													C
REFR 2211 Advanced Refrigeration Principles													C
REFR 2212 Advanced Refrigeration Lab													C
REFR 2213 Advanced Electrical Theory													C
REFR 2215 Advanced Electrical Applications													C
REFR 2216 Refrigeration Internship													C
REFR 2217 Commercial Grocery Store Refrigeration													C
Post-Secondary Programs													
NDSCS													
Architectural Drafting & Estimating Technology - AAS													C
Building Construction Technology - AAS													C
Construction Management Technology - AAS													C
Land Surveying & Civil Engineering Technology - AAS													C
Electrical Technology - Electrical Construction - AAS													C
Electrical Technology - Industrial Electrical - AAS													C
HVAC/R Technology - Certificate & AAS													C
Plumbing - Certificate													C
Technical Studies - Certificate, Diploma, AAS										C-R			C
Technical Studies - Journeyworker Track - AAS										C-R			C
M/State Moorhead													
Construction Management - AAS													C
Electrical Technology: Electrician - Diploma													C
Fire Service Preparation - Certificate													C
Heating, Ventilation and Air Conditioning/Refrigeration - Diploma													C
Plumbing Technology - Diploma													C

Preliminary Recommendations

Health Science Cluster

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Career Workforce Academy by Location

Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Secondary Courses													
Health Science I	VCE	C	C	C	VCE	VCE	VCE	C	C	R			
Health Science II	VCE	VCE	VCE	VCE	VCE	VCE	VCE	VCE	VCE	R			
Medical Terminology	VC	C	C	C	VCE	VCE	VC	C	C	R			
Certified Nursing Assistant	VC	C	C	C	VCE	C	VC	C	C	R			
Prevention & Care of Athletic Injuries	VC	C-PE	C-PE	C-PE	VCE	VCE	VC	C	C	R			
Post-Secondary Courses													
NDSCS													
Emergency Medical Services (EMS) Classes													
EMS 100 Emergency Medical Responder										C-R			
EMS 101 Introduction into EMS										C-R			
EMS 110 EMT Fundamentals										C-R			
EMS 110L EMT Fundamentals Lab										C-R			
EMS 110P EMT Practicum										C-R			
EMS 150 AEMT Fundamentals										C-R			
EMS 150L AEMT Fundamentals Lab										C-R			
EMS 170 Trauma I										C-R			
EMS 180 Pharmacology I										C-R			
EMS 203 Pharmacology II										C-R			
EMS 204 Medical Emergencies I										C-R			
EMS 205 Medical Emergencies II										C-R			
EMS 207 Special Populations										C-R			
EMS 215 Cardiology										C-R			
EMS 217 Pulmonology										C-R			
EMS 218 Cardio-Pulmonology										C-R			
EMS 219 Trauma II										C-R			
EMS 231 Paramedic Lab I										C-R			
EMS 232 Paramedic Simulation Lab										C-R			
EMS 234 Paramedic Assessment Lab										C-R			
EMS 241 Advanced Provider Practicum I										C-R			
EMS 242 Advanced Practicum II										C-R			
EMS 243 Capstone in Paramedicine										C-R			
EMS 255 Leadership in EMS										C-R			
Health Information Classes													
BOTE 171 Medical Terminology										R	C-R	C	
Nursing Classes													
NURS 101 Introduction to Nursing										C-R		C	
NURS 102 Introduction to Adult Nursing										C-R		C	
NURS 231 Psychiatric Mental Health Nursing										C-R		C	
NURS 232 Adult Nursing										C-R		C	
NURS 233 Adult Nursing Clinical										C-R		C	
NURS 245 Maternal Child Nursing										C-R		C	
NURS 246 Maternal Child Nursing Clinical										C-R		C	
NURS 250 Leadership in Long-Term care setting										C-R		C	
NURS 251 NCLEX-PN Review										C-R		C	
NUTR 240 Principles of Nutrition & Diet Therapy										C-R		C	
PHRM 205 Pharmacology for Nursing										C-R		C	

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M/State Moorhead													
ADMM 1104 Medical Language Applications I													C
ADMM 1110 Medical Documentation Fundamentals													C
ADMM 1122 Medical Office Procedures													C
ADMM 1150 Medical Billing/Insurance													C
ADMM 1152 Outpatient Coding													C
ADMM 1160 Beginning Medical Transcription													C
ADMM 1200 Medical Office Technology Tools													C
ADMM 2104 Medical Language Applications II													C
ADMM 2122 Medical Office Management													C
ADMM 2130 Medical Office Career Insight													C
ADMM 2150 Medicare Coding and Billing Applications													C
ADMM 2152 Advanced Coding													C
ADMM 2154 Hospital Billing													C
ADMM 2256 Certified Professional Biller Examination													C
ADMM 2258 Certified Professional Coder Examination Review													C
ADMM 2320 Medical Office Capstone													C
ADMM 2500 Human Disease Applications for Administrative H													C
ADMS 1116 Business Communications I													C
CRJU 1101 Introduction to Criminal Justice													C
CRJU 1102 Policing and Practices													C
CRJU 1108 Physical Control Tactics for Corrections													C
CRJU 1109 Law Enforcement Behavioral Science													C
CRJU 2201 Criminal Law													C
CRJU 2206 Police Report Writing													C
CVRI 1100 Cardiovascular Technology Survey													C
CVRI 1105 Introduction to Cardiovascular Technology													C
CVRI 1110 Cardiovascular Anatomy and Physiology													C
CVRI 1120 Principles of Patient Care													C
CVRI 1130 Cardiovascular Technology I													C
CVRI 1136 Cardiovascular Technology Clinical													C
CVRI 2130 Cardiovascular Technology II													C
CVRI 2141 Pharmacology for Cardiovascular Technology													C
CVRI 2145 Intravenous Therapy													C
CVRI 2250 Radiation Safety													C
CVRI 2262 Cardiovascular Technology Practicum I													C
CVRI 2263 Cardiovascular Technology Practicum II													C
CVRI 2264 Cardiovascular Technology Practicum III													C
DENT 1100 Biomaterials													C
DENT 1102 Dental Anatomy													C
DENT 1103 Introduction for Dental Health Care Providers													C
HITM 1150 Introduction to Health Care Delivery													C
HITM 1152 Health Information Systems													C
HITM 1155 Medicolegal Aspects													C
HITM 1159 Professional Practice Experience Function													C
HITM 2204 Fundamentals of Electronic Health Records													C
HITM 2216 Introduction to Procedure Coding													C
HITM 2218 Intermediate Procedure Coding													C

Preliminary
Recommendations

Academic Offerings														
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HITM 2230 Medical Science for Health Information Profession														C
HITM 2250 Supervisory Leadership in Health														C
HITM 2253 Quality Management Studies														C
HITM 2263 Reimbursement Systems														C
HITM 2272 Professional Practice Experience III														C
HITM 2282 Introduction to Diagnosis Coding														C
HITM 2283 Intermediate Diagnosis Coding														C
HITM 2290 Health Care Data Management and Analysis														C
HLTH 1110 Introduction to Anatomy and Physiology														C
HLTH 1116 Medical Terminology														C
PHRM 1100 Personal and Professional Responsibilities of the														C
PHRM 1101 Personal and Professional Responsibility Applicat														C
PHRM 1110 Medication Processing, Handling, and Safety I														C
PHRM 1111 Medication Processing, Handling and Safety Lab I														C
PHRM 1120 Pharmaceutical Calculations														C
PHRM 2010 Experiential / Hospital														C
PHRM 2012 Experiential / Retail														C
PHRM 2100 Pharmacotherapy														C
PHRM 2110 Medication Processing, Handling and Safety II														C
PHRM 2111 Medication Processing, Handling and Safety Lab II														C
PHRM 2120 Professional Preparation														C
PSYC 2226 Behavior and Environmental Management														C
SURT 1200 Introduction to Surgical Technology														C
SURT 1210 Surgical Technology I														C
SURT 1215 Surgical Pharmacology														C
SURT 1220 Surgical Technology II														C
SURT 1230 Surgical Technology III														C
SURT 1250 Surgical Clinical I														C
SURT 1255 Surgical Clinical II														C

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Recommendations

Academic Offerings													
Key: C = Currently offered VC = Virtual Center (current) M = Move from present location VCE = Virtual Center expansion (future)													
	E = Expanded offering (future)												
	R = Recommended offering												
	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moor-head	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Post-Secondary Programs													
NDSCS													
Dental													
Dental Assisting - Certificate, AAS												C	
Dental Hygiene - AAS												C	
Emergency Medical Services													
Emergency Medical Technician (EMT) - Certificate										C-R			
Advanced EMT - Certificate										C-R			
Paramedic Technology - Certificate, AAS										C-R			
Health Information													
Medical Coding - Certificate												C	
Health Information Technician - AAS												C	
Nursing													
Practical Nursing - AAS LPN										C-R		C	
Registered Nursing - ASN RN												C	
Registered Nursing - AAS RN												C	
Occupational Therapy Assistant - AAS												C	
Pharmacy Technician - Certificate, AAS										R		C	
M/State Moorhead													
Autism Spectrum Disorder - Certificate													C
Cardiovascular Technology - Invasive - AAS													C
Childcare and Education - Certificate													C
Correctional Officer - Certificate													C
Criminal Justice - AS													C
Dental Assisting - AAS													C
Dental Assisting - Diploma													C
Dental Hygiene - AAS													C
Health Information Technology/Coding - AAS													C
Medical Administration Assistant - AAS													C
Medical Coding and Insurance - Diploma													C
Medical Office Assistant - Diploma													C
Medical Receptionist - Diploma													C
Pharmacy Technology - Diploma													C
Surgical Technology - AAS													C

Preliminary
Recommendations

Information Technology Cluster

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Career Workforce Academy by Location

Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Secondary Courses													
Intro to Coding	VC	C	C	C	C	C	C	C	C				
Mobile Apps & Security	VC	VC	VC	VC	VCE		VC	C	VC				
Computer Programming I - Java	VC	C	C	C			VC	C	C	R	E		
Advanced Programming - Java	VC	C	C	C			VC	C	C	R			
HTML													
IT Essentials I	VC	VC	VC	C			VC	C	VC	R	E		
IT Essentials II	VC	VC	VC	C			VC	C	VC	R	E		
Cisco I	VC	VC	VC	C			VC	VC	VC	R	E		
Cisco II	VC	VC	VC	C				VC	VC	R	E		
Cisco III		VC	VC	M				C	C	R	E		
Cisco IV		VC	VC	M						R	E		
Web Design		C				C				R			
Web Development						C				R			
Security Course (Future Course)										R			
Post-Secondary Courses													
NDSCS													
CIS 101 Computer Literacy										C-R	C	C	
CIS 128 IT Essentials I										C-R			
CIS 129 IT Essentials II										C-R			
CIS 164 Networking Fundamentals I										C-R		C	
CIS 165 Networking Fundamentals II										C-R		C	
CIS 180 HTML and CSS										C-R		C	
CIS 181 Web Authoring Software										C-R		C	
CIS 182 Image Editing Software										C-R		C	
CIS 197 Internship										C-R		C	
CIS 212 Microsoft Windows Operating System Client										C-R			
CIS 215 Implementing a Microsoft Windows Server										C-R			
CIS 216 Implementing a Microsoft Windows Network										C-R			
CIS 220 Operating Systems (Unix)										C-R		C	
CIS 232 Graphics Design										C-R		C	
CIS 241 IT Forensics I										C-R			
CIS 242 IT Forensics II										C-R			
CIS 244 Web Server Management										C-R			
CIS 267 Intermediate Networking I										C-R			
CIS 268 Intermediate Networking II										C-R			
CIS 279 Security Awareness and Policy										C-R		C	
CIS 280 Fundamentals of Network Security I										C-R			
CIS 282 Computer System Security										C-R			
CSCI 116 Business Use of Computers										C-R		C	
CSCI 160 Computer Science I										C-R		C	
CSCI 230 Web Database I (ASP/PHP)										C-R		C	
M/State Moorhead													
CPTR 1001 Introduction To Programming and Scripting													C
CPTR 1106 Microcomputer Databases													C
CPTR 1108 CISCO I													C

Preliminary Recommendations

Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Key: C = Currently offered VC = Virtual Center (current) M = Move from present location VCE = Virtual Center expansion (future)													
E = Expanded offering (future) R = Recommended offering													
CPTR 1110 Visual Basic Program I													C
CPTR 1115 COBOL Programming													C
CPTR 1118 CISCO II													C
CPTR 1122 Microcomputer Maintenance													C
CPTR 1129 RPG Programming													C
CPTR 1170 Web Engineering I													C
CPTR 1178 Robotics													C
CPTR 2000 Mobile Application Development													C
CPTR 2200 CISCO III													C
CPTR 2208 CISCO IV													C
CPTR 2210 Database Report Generation													C
CPTR 2224 Linux I													C
CPTR 2230 Structured Query Language													C
CPTR 2234 Linux II													C
CPTR 2236 Network Security													C
CPTR 2238 Database Integration													C
CPTR 2240 Database Administration													C
CPTR 2242 Java Programming													C
CPTR 2245 Enterprise Network Technologies													C
CPTR 2250 IT Supervised Occupational Experience													C
CPTR 2260 Advanced Structured Query Language													C
CPTR 2272 Network Operating Systems													C
CPTR 2275 Data Analytics													C
CPTR 2294 Internship													C
CPTR 2296 Topics in Computers													C
CSCI 1110 Informatics													C
CSCI 1121 Computer Science I													C
CSCI 1122 Computer Science II													C
CSEC 2204 Managing Directory Services													C
CSEC 2210 Security Breaches and Countermeasures													C
CSEC 2212 Web Security													C
CSEC 2214 Topics in Network Security													C
CSEC 2228 Network Defense													C
CVNP 2212													C
Post-Secondary Programs													
NDSCS													
IT Forensics and Security - Certificate										C-R			
Information Technology Support - Certificate										C-R			
Information Systems Administrator - AAS										C-R			
Web Design - Certificate										C-R		C	
Web Developer - AAS										C-R		C	
Technical Studies													
Technical Studies - Certificate, Diploma, AAS										C-R		C	
M/State Moorhead													
Cisco Networking - Certificate													C
Computer Programming - AAS													C
Information Technology - AS													C
Information Technology - Database Administration - AAS													C
Network Administration and Security - AAS													C
Network Security - Certificate													C

Preliminary
Recommendations

Manufacturing - Engineering Cluster

03/28/2019

Career Workforce Academy by Location													
Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Secondary Course Courses													
Metals I									C				
Metals II									C				
Welding I	VC	VC	VC	VC	VCE	C	VC	VC	VC	R	E		
Welding I	VC	VC	VC	VC	VCE	C	VC	VC	VC	R	E		
Automated Manufacturing I	VC	VC	VC	C	VCE		VC	VC	VC	R	E		
Automated Manufacturing II	VC	VC	VC	C	VCE		VC	VC	VC	R	E		
Automated Manufacturing III	VC	VC	VC	C	VCE		VC	VC	VC	R			
Intro to Engineering (PLTW)		C	C	C		C		C	C	R			
Principles of Engineering (PLTW)		C	C	C		C		C	C	R			
Digital Electronics (PLTW)									C	R			
Post-Secondary Courses													
NDSCS													
Manufacturing/Welding Classes													
MFGT 101 Robotics I										C-R		C	
MFGT 110 Industrial Shop Practices										C-R	C-R	C	
MFGT 123 Fabrication Methods I										C-R	C-R	C	
MFGT 135 Basic Metallurgy										C-R		C	
MFGT 137 Print Reading I										C-R		C	
MFGT 140 Fabrication Methods II										C-R		C	
MFGT 141 Print Reading II										C-R		C	
WELD 151 Welding Theory I										C-R		C	
WELD 152 Welding Theory II										C-R		C	
WELD 153 Welding Lab I										C-R		C	
WELD 154 Welding Lab II										C-R		C	
WELD 201 Welding Theory III										C-R		C	
WELD 202 Welding Theory IV										C-R		C	
WELD 211 Welding Lab III										C-R		C	
WELD 212 Welding Lab VI										C-R		C	
Robotics Classes													
RAMT 137 Print Reading, Drafting & Safety										R		C	
MFGT 110 Industrial Shop Practices										C-R	C-R	C	
Robotics Classes - TBD													
M/State Moorhead													
ENGR 2210 Engineering Mechanics I													C
ENGR 2220 Engineering Mechanics II													C
ENGR 2230 Mechanics of Materials													C
MATH 1134 Calculus I													C
MATH 1135 Calculus II													C
MATH 2231 Calculus III													C
MATH 2259 Differential Equations													C
PHYS 1412 University Physics II													C

Preliminary Recommendations

Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Key: C = Currently offered Center (current) location VCE = Virtual Center expansion (future)													
E = Expanded offering (future) VC = Virtual Center (current) R = Recommended offering M = Move from present location													
Post-Secondary Programs													
NDSCS													
Precision Machining - Certificate, AAS												C	
Robotics, Automation & Mechatronics (RAMT) - AAS												C	
Welding - Certificate, AAS												C	
Technical Studies													
Technical Studies - Certificate, Diploma, AAS										C-R		C	
M/State Moorhead													
Drafting and 3D Technologies - Diploma													C
Drafting and 3D Technologies - AAS													C
Engineering - AS													C

Preliminary
Recommendations

Transportation Cluster

03/28/2019

Career Workforce Academy by Location

Career Workforce Academy by Location													
Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Key: C = Currently offered E = Expanded offering (future) VC = Virtual Center (current) R = Recommended offering M = Move from present location VCE = Virtual Center expansion (future)													
Secondary Courses													
Aviation IA	VC	VC	VC	VC	VCE	VCE	VC	C	VC				
Aviation IB	VC	VC	VC	VC	VCE	VCE	VC	C	VC				
Aviation II	VC	VC	VC	VC	VCE	VCE	VC	C	VC				
Automotive I	VCE	VCE	VCE	C	VCE	VCE	VCE	VCE	VCE				
Automotive II	VCE	VCE	VCE	C	VCE	VCE	VCE	VCE	VCE				
Diesel I								C-M		M	R-E		
Diesel II								C-M		M	R-E		
Recreational Engines I	VCE	VCE	VCE	VCE	VCE	C	VCE	VCE	C				
Recreational Engines II	VCE	VCE	VCE	VCE	VCE	C	VCE	VCE	C				
UAS Introduction										R	R-E		
Post-Secondary Courses													
NDSCS													
Auto Body Classes													
MFG 110 Industrial Shop Practices										C-R	R	C	
Automotive Classes													
MFG 110 Industrial Shop Practices										C-R	R	C	
AUTO 133 Power Trains I											R	C	
AUTO 134 Power Trains II											R	C	
Diesel Classes													
MFG 110 Industrial Shop Practices										C-R	R	C	
DTEC 135 Medium/Heavy Duty Brakes										R	R	C	
DTEC 125 Intro to Heavy Duty Drive Sys										R	R	C	
Powersports Classes													
MFG 110 Industrial Shop Practices										C-R	R	C	
PST - TBD											R	C	
UAS Classes													
UAS 111 Intro to UAS										R	R	C	
UAS 112 UAS Pilot Certification										R	R	C	
UAS 121 UAS Advanced Data Collection										R		C	
UAS 122 UAS Photography and Videography										R		C	
UAS 132 Advanced UAS Flight										R		C	
Technical Studies													
Technical Studies - Certificate, Diploma, AAS										C-R		C	
M/State Moorhead													
AMST 1101 Automotive Equipment Fundamentals													C
AMST 1102 Alignment and Suspension I													C
AMST 1105 Brakes I													C
AMST 1110 Batteries, Starting and Charging Systems													C
AMST 1111 Automotive Electronics													C
AMST 1122 Engines I													C
AMST 1126 Engines II													C
AMST 1132 Drivetrains I													C
AMST 1136 Drivetrains II													C

Preliminary Recommendations

Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moor-head	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Key: C = Currently offered E = Expanded offering (future) VC = Virtual Center (current) R = Recommended offering M = Move from present location VCE = Virtual Center expansion (future)													
AMST 2201 Alignment and Suspension II													C
AMST 2206 Body Electrical and Mechanical I													C
AMST 2210 Body Electrical and Mechanical II													C
AMST 2211 Exhaust Analysis and Fuel Systems													C
AMST 2214 Electronic Powertrain Control I													C
AMST 2218 Electronic Powertrain Control II													C
AMST 2220 Ignition Systems													C
AMST 2225 Brakes II													C
AMST 2233 Automatic Transmissions I													C
AMST 2237 Automatic Transmissions II													C
AMST 2240 Heating, Ventilation and Air Conditioning													C
BIOL 1107 Environmental Science Issues													C
COMM 1120 Introduction to Public Speaking													C
CPTR 1100 Fund Computer Concepts													C
DCNH 2210 Mobile Hydraulics													C
DCNH 2218 CNH (Case New Holland) Supervised Occupati													C
DCNH 2238 Transmissions and Drive Systems													C
DCNH 2242 Advanced Engines and Fuel Systems													C
DCNK 1116 CNH (Case New Holland) Supervised Occupati													C
DCNK 1118 CNH (Case New Holland) Supervised Occupati													C
DSET 1100 Diesel Equipment Fundamentals													C
DSET 1101 Software Systems in Transportation													C
DSET 1106 Fuel Systems													C
DSET 1110 Power Train I													C
DSET 1112 Hydraulics I													C
DSET 1114 Vehicle Brakes													C
DSET 1124 Diesel Shop Management													C
DSET 1130 Trans Elec/Start/Charge													C
DSET 1132 Introduction to Engine Theory													C
DSET 1134 Introduction to Engines													C
DSET 1144 Electrical Troubleshooting													C
DSET 2204 Advanced Electrical and Emission Systems													C
DSET 2206 Electronic Controls													C
DSET 2210 Mobile Hydraulics													C
DSET 2214 Suspension and Alignment													C
DSET 2218 Advanced Fuels													C
DSET 2220 Internship													C
DSET 2238 Transmissions & Drive Systems													C
DSET 2242 Advanced Engines and Fuel Systems													C
ENGL 1101 College Writing													C
TRNS 1112 Heating Ventilation A/C													C

Preliminary
Recommendations

Academic Offerings														
Key: C = Currently offered E = Expanded offering (future) VC = Virtual Center (current) R = Recommended offering M = Move from present location VCE = Virtual Center expansion (future)	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moor- head	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead	
Post-Secondary Programs														
NDSCS														
Auto Body Repair & Refinishing Tech - AAS													C	
Automotive Technology - AAS													C	
Powersports Technology - Certificate & AAS													C	
Diesel Technology - AAS													C	
John Deere Tech - AAS													C	
Caterpillar Dealer Service Technician - AAS													C	
Unmanned Aircraft Systems (UAS) - Certificate										R			C	
M/State Moorhead														
Automotive Service Technology - AAS													C	
Automotive Service Technology - Diploma													C	
Diesel Equipment Technology - AAS													C	
Diesel Equipment Technology - Diploma													C	

Preliminary
Recommendations

Arts & Communications Cluster

03/28/2019

Career Workforce Academy by Location

Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Secondary Course Courses													
Photography I		C	C	C				C	C				
Photography II		C	C	C				C	C				
DigiTools I						C							
DigiTools II						C							
Communications Tech		C	C	C									
Graphics Communication								C	C				
News Media													
Broadcasting								C	C				
TV Production						C							
Publications								C	C				
Performing Arts		C	C	C				C	C				
Visual Arts courses		C	C	C				C	C				
Post-Secondary Course Courses													
NDSCS													
Performing Arts													
MUSC 101 Music Appreciation										R		C	
MUSC 101 Fundamentals of Music										R		C	
MUSC 207 History of Rock and Roll										C-R		C	
Communication													
COMM 110 Fundamentals of Public Speaking										C-R		C	
COMM 212 Interpersonal Communication										R		C	
COMM 216 Intercultural Communication										R		C	
M/State Moorhead													
ASL 1111 American Sign Language and Deaf Culture I													C
ASL 1112 American Sign Language and Deaf Culture II													C
ASL 1113 American Sign Language and Deaf Culture III													C
ASL 1114 American Sign Language and Deaf Culture IV													C
ASLM 1110 Introduction to Medical Interpreting													C
ASLM 1111 Ethical Decision Making for Medical Interpreters													C
ASLM 1112 Medical Signs													C
ASLM 1113 Special Topics in the Field of Medical Interpretin													C
ASLM 1114 Introduction to Mental Health Interpreting													C
COMM 2230 Intercultural Communication													C
GDTC 1100 Macintosh Production Processes													C
GDTC 1105 Adobe Photoshop I													C
GDTC 1113 Design and Layout I													C
GDTC 1115 Design and Layout II													C
GDTC 1120 Adobe InDesign I													C
GDTC 1124 Interactive Design I													C
GDTC 1126 Digital Photography													C
GDTC 1135 Adobe Illustrator I													C
GDTC 1150 Process Printing Theory													C

Preliminary Recommendations

Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Key: C = Currently offered E = Expanded offering (future) VC = Virtual Center (current) R = Recommended offering M = Move from present location VCE = Virtual Center expansion (future)													
GDTC 2120 Adobe InDesign II													C
GDTC 2205 Adobe Photoshop II													C
GDTC 2212 Design and Layout III													C
GDTC 2224 Interactive Design II													C
GDTC 2230 Design Portfolio													C
GDTC 2245 Adobe Illustrator II													C
GDTC 2250 Design Campaigns													C
GDTC 2258 Graphic Design Prof Practice													C
GDTC 2278 Digital Preflight													C
HLTH 1110 Introduction to Anatomy and Physiology													C
HLTH 1116 Medical Terminology													C
Post-Secondary Programs													
NDSCS													
Liberal Arts - General - AA, AS										C-R		C	
Liberal Arts - Music - AA										R		C	
M/State Moorhead													
American Sign Language Studies - Certificate													C
Graphic Design Technology - AAS													C
Graphic Design Technology - Diploma													C
Sign Language Interpreter - Medical - Certificate													C

Preliminary
Recommendations

Liberal Arts, Transfer and General Education Cluster

03/28/2019

Career Workforce Academy by Location

Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moor-head	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Key:													
C = Currently offered													
E = Expanded offering (future)													
VC = Virtual Center (current)													
R = Recommended offering													
M = Move from present location													
VCE = Virtual Center expansion (future)													
Secondary Course Courses													
English IV													
Foreign Language													
Psychology													
Mathematics													
Ramp Up - (Science of Success)?													
Sociology													
Sciences													
Post-Secondary Courses													
NDSCS													
Academic Services (Developmental)													
ASC 060 English Language and Grammar Skills										C-R		C	
ASC 067 English as a Second Language										C-R		C	
ASC 82 effective Reading										C-R		C	
ASC 84 Critical Reading										C-R		C	
ASC 86 College Writing Prep I										C-R		C	
ASC 87 College Writing Prep II										C-R		C	
ASC 88 Composition Lab										C-R		C	
ASC 90 Math Prep										C-R	C	C	
ASC 91 Algebra Prep I										C-R	C	C	
ASC 92 Algebra Prep II										C-R	C	C	
ASC 93 Algebra Prep III										C-R	C	C	
English, Communication, & Performing Arts													
COM 110 Fundamentals of Public Speaking										C-R	C	C	
ENGL 110 College Composition I										C-R	C	C	
ENGL 120 College Composition II										C-R	C	C	
ENGL 240 World Literature Masterpieces										C-R		C	
MUSC 207 History of Rock and Roll Music										C-R		C	
Mathematics and Science Classes													
BIOL 111 Concepts of Biology/Lab										C-R		C	
BIOL 150/L General Biology I/Lab										C-R	C	C	
BIOL 151/L General Biology II/Lab										C-R	C	C	
BIOL 220/L Anatomy & Physiology I/Lab										C-R	C	C	
BIOL 221/L Anatomy & Physiology II/Lab										C-R	C	C	
CHEM 121/L General Chemistry I/Lab										C-R	C	C	
CHEM 122/L General Chemistry II/Lab										C-R	C	C	
BOTE 108 Business Math										C-R		C	
MATH 103 College Algebra										C-R	C	C	
MATH 105 Trigonometry										C-R	C	C	
MATH 130 Technical Math										C-R		C	
MATH 132 Technical Algebra I										C-R		C	
MATH 136 Technical Trigonometry										C-R		C	
MATH 210 Elementary Statistics										C-R	C	C	
MICR 202/L Introductory Microbiology										C-R		C	
PHYS 211/L College Physics I										C-R		C	
Social & Behavioral Sciences													
CJ 160 The Legal System										C-R		C	
CJ 201 Introduction to Criminal Justice										C-R		C	
CJ 232 Administration of Justice										C-R		C	

Preliminary Recommendations

Academic Offerings	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moorhead	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
Key: C = Currently offered VC = Virtual Center (current) M = Move from present location VCE = Virtual Center expansion (future)													
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CJ 297 Internship: Field Studies										C-R		C	
CJ 297 CJ Internship										C-R		C	
ECON 105 Elements of Economics										C-R	C	C	
ECON 201 Principles of Microeconomics										C-R		C	
ECON 202 Principles of Macroeconomics										C-R		C	
HIST 103 United States History To 1877										C-R		C	
HIST 104 United States History Since 1877										C-R		C	
PHIL 210 Ethics										C-R		C	
POLS 115 American Government										C-R		C	
POLS 115 State and Local Government										C-R		C	
PSYC 100 Human Relations in Organizations										C-R		C	
PSYC 111 Introduction to Psychology										C-R		C	
PSYC 230 Educational Psychology										C-R		C	
PSYC 250 Developmental Psychology										C-R		C	
PSYC 270 Abnormal Psychology										C-R		C	
RELS 203 World Religions										C-R		C	
SOC 110 Introduction to Sociology										C-R		C	
SOC 115 Social Problems										C-R		C	
SOC 221 Minority Relations										C-R		C	
M/State Moorhead													
ACCT 1108 Business Math and Calculators													C
ACCT 2210 Managerial Accounting													C
ACCT 2211 Financial Accounting I													C
ACCT 2212 Financial Accounting II													C
ACCT 2213 Managerial Accounting													C
ACCT 2215 Computerized Acct App													C
ACCT 2255 Income Tax-Individual													C
ART 1107 Foundations of Art, 2-D													C
ART 1108 Foundations of Art, 3-D													C
ART 1110 Introduction to Art													C
ART 1111 Drawing I													C
ART 1112 Painting I													C
ART 1117 Printmaking I													C
ART 1118 Watercolor I													C
ART 1121 World of Art I													C
ART 1122 World of Art II													C
ART 1124 American Art													C
ART 1140 Handbuilt Ceramics													C
ART 2111 Drawing II													C
ART 2112 Painting II													C
ART 2114 Photographic Art I													C
ART 2115 Introduction to Digital Photography													C
ART 2116 Mixed Media I													C
ART 2201 Foundations on Digital Imaging													C
ART 2260 Art, Portfolio Design and Professional Development													C
ART 2261 Art, Portfolio Design and Professional Development Internsh													C
ART 2999 AFA-Visual Art Capstone Exhibition													C
BIOL 1107 Environmental Science Issues													C
BIOL 1108 Environmental Science Issues Lab													C
BIOL 1115 Introduction to Biotechnology													C
BIOL 1122 General Biology I													C
BIOL 1123 General Biology II													C

Preliminary
Recommendations

Academic Offerings													
Key: C = Currently offered VC = Virtual Center (current) M = Move from present location VCE = Virtual Center expansion (future)	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moor- head	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
BIOL 1152 Food Science													C
BIOL 1170 Essentials of Human Anatomy and Physiology													C
BIOL 2010 General Ecology													C
BIOL 2202 Principles of Nutrition													C
BIOL 2220 General Microbiology													C
BIOL 2240 Genetics													C
BIOL 2260 Human Anatomy and Physiology I													C
BIOL 2261 Human Anatomy and Physiology I Lab													C
BIOL 2262 Human Anatomy and Physiology II													C
BIOL 2263 Human Anatomy and Physiology II Lab													C
BIOL 2267 Medical Microbiology													C
BIOL 2268 Medical Microbiology Lab													C
BIOL 1104 Biology of Human Concerns													C
BUS 1120 Spreadsheet & Database Concepts													C
BUS 1146 Personal Finance													C
BUS 2150 Legal Environment of Business													C
BUS 2204 Principles of Management													C
BUS 2206 Principles of Marketing													C
CHEM 1100 Fundamental Concepts of Chemistry													C
CHEM 1101 Principles of General Chemistry													C
CHEM 1111 General Inorganic Chemistry I													C
CHEM 1112 General Inorganic Chemistry II													C
CHEM 1115 Introduction to Organic and Biochemistry													C
CHIN 1101 Introduction to Chinese													C
COMM 1100 Power and Communications in Human Relations													C
COMM 1120 Introduction to Public Speaking													C
COMM 1130 Small Group Communication													C
COMM 1140 Interpersonal Communication													C
COMM 2220 Oral Interpretation													C
COMM 2230 Intercultural Communication													C
COMM 2240 Family Communication													C
COMM 2250 Gender Communication													C
COMM 2260 Computer-Mediated Communication													C
CPTR 1104 Introduction to Computer Technology													C
ECON 1150 Essentials of Economics													C
ECON 2210 Macroeconomics													C
ECON 2222 Microeconomics													C
ENGL 1101 College Writing													C
ENGL 1205 Writing About Literature													C
ENGL 1210 Writing About Current Issues													C
ENGL 1215 Professional and Technical Writing													C
ENGL 2234 Introduction to Literature: Short Stories													C
ENGL 2236 Introduction to Literature: Novel													C
ENGL 2238 Literature, Illness and the Human Condition													C
ENGL 2310 Introduction to Mythology													C
ENGL 2321 Women in Literature													C
ENGL 2325 Contemporary World Literature													C
ENGL 2372 Children's Literature													C
GEOG 1160 Global Physical Geography													C
HIST 1101 Western Civilization: Ancient to 1600s													C
HIST 1102 Western Civilization: 1600's to the Present													C
HIST 1113 Western Civilization: 20th Century													C
HIST 1201 American History to 1877													C

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Academic Offerings													
Key:	Central Cass	Fargo Davies	Fargo North	Fargo South	Kindred	Moor- head	Northern Cass	West Fargo Sheyenne	West Fargo HS	CWA Center	NDSCS Early Entry	NDSCS Wahpeton	M-State Moorhead
HIST 1202 American History since 1877													C
HIST 1600 History of Baseball													C
HIST 1700 The History of America's National Parks													C
HIST 2212 American History 19th Century													C
HIST 2213 American History: 20th Century													C
HIST 2220 Minnesota and Northern Plains History													C
HUM 1101 Introduction to the Humanities													C
HUM 1105 Religion in the Humanities													C
HUM 1201 Religion and the American Experience													C
HUM 2236 Technology in the Humanities													C
HUM 2301 Heroes, Moral and Cultural													C
MATH 1100 World of Math													C
MATH 1102 Finite Math													C
MATH 1114 College Algebra													C
MATH 1115 Functions/Trigonometry													C
MATH 1116 College Trigonometry													C
MATH 1118 Precalculus													C
MATH 1122 Applied Calculus and Linear Algebra													C
MATH 1134 Calculus I													C
MATH 1135 Calculus II													C
MATH 1207 Elementary Statistics													C
MATH 1213 Introduction to Statistics													C
MATH 2200 Principles of Arithmetic													C
MATH 2231 Calculus III													C
MATH 2257 Linear Algebra													C
MCOM 1122 Introduction to Mass Communication													C
MCOM 1142 Popular Culture and Social Media													C
MCS 2230 Multicultural America													C
MIS 1100 Business Computers													C
MUSC 1117 Beginning Class Guitar													C
MUSC 1160 Music Business: Creating and Promoting Music													C
MUSC 1191 Individual Piano Lessons													C
MUSC 2214 Class Piano II													C
PHIL 1130 Critical Thinking													C
PHIL 1200 Applied and Professional Ethics													C
PHIL 1201 Ethics													C
PHIL 1211 Introduction to Philosophy													C
PHIL 2220 Environmental Ethics													C
PHIL 2225 Bioethics													C
PHIL 2230 Existentialism													C
PHIL 2235 Symbolic Logic													C
PHIL 2240 Non-Western Philosophical Perspectives													C
PHIL 2300 Political and Social Philosophy													C
PHYS 1105 Fundamental Concepts in Physics													C
PHYS 1106 Fund of Physics - Mechanics													C
PHYS 1107 Physics of Music													C
PHYS 1108 Physics of Flight													C
PHYS 1120 Introduction to Astronomy													C
PHYS 1401 College Physics I													C
PHYS 1402 College Physics II													C
PHYS 1411 University Physics I													C
PHYS 1412 University Physics II													C
POLS 1120 American National Government													C

Preliminary
Recommendations

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POLS 1130 State and Local Government														C
POLS 2204 Comparative Government														C
POLS 2206 Global Politics														C
POLS 2220 Introduction to Constitutional Theory														C
POLS 2310 Ideas and Ideologies														C
POLS 2950 Introduction to Social Research														C
PSYC 1101 Human Interaction														C
PSYC 1200 General Psychology														C
PSYC 1202 Introduction to Autism Spectrum Disorders														C
PSYC 1500 Positive Psychology														C
PSYC 2220 Abnormal Psychology														C
PSYC 2222 Lifespan Development														C
PSYC 2224 Social Psychology														C
PSYC 2226 Behavior and Environmental Management														C
PSYC 2230 Personality Psychology														C
PSYC 2302 Cross-Cultural Psychology														C
PSYC 2900 Statistics for Behavioral and Social Sciences														C
PSYC 2950 Introduction to Social Research														C
SOC 1111 Introduction to Sociology														C
SOC 1113 Social Problems														C
SOC 1114 Sociology Service Learning														C
SOC 2210 Social Deviance														C
SOC 2950 Introduction to Social Research														C
SPAN 2211 Intermediate Spanish I														C
SPAN 2212 Intermediate Spanish II														C
SW 2250 Introduction to Social Work/Social Welfare														C
THTR 1100 Introduction to Theatre														C
THTR 1105 Acting I														C
THTR 1120 Theatre Performance Practicum														C
THTR 1125 Theatre Technical Practicum														C
THTR 1130 Stage Make-up														C
THTR 1140 Stagecraft														C
THTR 2120 Script Analysis														C
THTR 2130 Design for the Stage														C
WMST 1136 Global Perspectives of Women														C

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Academic Offerings														
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Post-Secondary Programs														
NDSCS														
Liberal Arts - AA, AS														
Agriculture Transfer													C	
Biotechnology Transfer													C	
Business Administration Transfer													C	
Chemistry Transfer													C	
Chiropractic Transfer													C	
Clinical Laboratory Science Transfer													C	
Computer Science Transfer											C-R		C	
Criminal Justice Transfer											C-R		C	
Dental Transfer													C	
Early Childhood Education Transfer													C	
Education Transfer													C	
Engineering Transfer													C	
General Liberal Arts Transfer											C-R		C	
Health, Physical Ed & Recreation Transfer													C	
Law Transfer													C	
Management Information Systems Transfer											C-R		C	
Mathematics Transfer													C	
Medical Transfer													C	
Music Transfer													C	
Natural Science Transfer													C	
Nursing Transfer													C	
Optometry Transfer													C	
Paralegal Transfer													C	
Pharmacy Transfer													C	
Physical Science Transfer													C	
Psychology Transfer													C	
Social Work Transfer													C	
Wildlife Management Transfer													C	
M/State Moorhead														
Accounting Transfer Pathway - AS														C
Associate of Arts (AA) Degree														C
Associate of Arts Degree: Social Science Emphasis - AA														C
Biology Transfer Pathway - AS														C
Business Transfer Pathway - AS														C
History Transfer Pathway - AA														C
Individualized Studies - AAS														C
Political Science Transfer Pathway - AA														C
Psychology Transfer Pathway - AA														C
Theatre Transfer Pathway														C

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