

NEBRASKA CAREER AND TECHNICAL EDUCATION

PROGRAMS OF STUDY

2023-2024



NEBRASKA CAREER AND TECHNICAL EDUCATION STATE MODEL PROGRAMS OF STUDY

In July of 2018 the Strengthening Career and Technical Education for the 21st Century Act (Perkins V) was signed into law, which reauthorized the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV). Perkins V maintains a focus on Programs of Study as the primary delivery model for CTE. This overview will describe and define the components of the Nebraska Career and Technical Education State Model Programs of Study.

PROGRAMS OF STUDY

Programs of Study are the primary delivery model for Career and Technical Education (CTE) in Nebraska. They include a sequence of courses which progresses in specificity and rigor and are updated regularly to align with Nebraska's workforce needs and economic development priorities.

- Assist secondary schools in creating meaningful sequences of courses that adequately prepare individuals for seamless transitions to postsecondary education and careers eliminating duplication of coursework;
- Assist students in identifying appropriate courses for high school and postsecondary education that lead to their chosen career;
- Encourage collaboration between secondary and postsecondary education through curricular alignment;
- Offer opportunities for high-quality workplace experiences aligned to students' career interests;
- Promote the advancement of early postsecondary opportunities (including dual-credit courses) for all students; and
- Support postsecondary education options for students to further prepare them for successful transitions to their future careers.

Nebraska's programs of study are organized around Nebraska's CTE Model, which provides a way for students to explore the diversity of career options available to them.

NEBRASKA CAREER AND TECHNICAL EDUCATION PROGRAMS OF STUDY OVERVIEW

NEBRASKA CAREER AND TECHNICAL EDUCATION MODEL

1 CORE ACADEMICS AND CAREER READINESS

At the center of the NCE Model is the expectation for all students to develop a solid academic core. The next ring identifies specific career readiness standards and practices that prepare students for success in postsecondary education as well as entrepreneurship/employment.

2 CAREER FIELDS

The six career fields represent broad sectors of the job market on which students may choose to focus.

3 CAREER CLUSTERS

Each career field is composed of career clusters radiating out from it. The clusters are more specific segments of the labor market. Each cluster is a grouping of careers that focus on similar subjects or similar skills. A basic understanding and exploration of each of the clusters will provide students with a solid foundation for career decision-making to conceptualize the entire world of work.

4 EMPLOYABILITY AND ENTREPRENEURSHIP

Career education provides the opportunity to gain the knowledge and skills for both employment and entrepreneurship. The reality for Nebraska and the United States is that entrepreneurship will help ensure economic growth and vitality. By infusing entrepreneurship competencies, career education is helping create the next generation of America's innovators and entrepreneurs.



The model is a visual map of “career fields” and “career clusters/pathways” and organizes the 16 National Career Clusters into six broad sectors of entrepreneurship and employment:

- Agriculture, Food and Natural Resources
- Business, Marketing and Management
- Communication and Information Systems
- Health Sciences
- Human Sciences and Education
- Skilled and Technical Sciences

These fields break down into more specific Career Clusters, Pathways and Occupational Specialties. The model provides a way for:

- Students to explore the diversity of career options available to them.
- Students to begin to prepare for their career with plans for secondary and post-secondary education.
- Schools to organize curriculum into Programs of Study that prepare students for opportunities in Nebraska’s economy.

COURSE SEQUENCING

The courses within the State Model Program of Study are intended to be offered sequentially, to allow learners to build upon foundational knowledge and skills learned in introductory and intermediate courses and applied in more advanced capstone coursework. Non-duplicative sequences of courses ensure students transition to postsecondary education without duplication of classes and content. CTE enrollment data is collected at the course level. Students who participate and concentrate in CTE generally have more positive outcomes such as higher graduation rates along with postsecondary success.

Introductory Courses

Introductory courses set the foundation for a program of study by introducing students to broad foundational knowledge relative to an occupational area and career field.

Intermediate Courses

Intermediate courses build on the foundational knowledge of Introductory courses to further develop the academic, technical, and career readiness skills within a particular career field and occupational area.

Capstone Courses

Capstone courses are occupationally specific and further develop the necessary and required academic, technical, and career readiness skills needed for seamless transitions to postsecondary education and employment. Capstone courses often provide opportunities for students to earn postsecondary credit.

State Model Programs of Study are coordinated, nonduplicative sequences of academic and technical content at the secondary and postsecondary levels that incorporate challenging State academic standards, address both academic and technical knowledge and skills, including Nebraska's Career Readiness Skills, are aligned with the needs of industries in Nebraska's economy, progress in specificity, have multiple entry and exit points that incorporate credentialing, and culminate in the attainment of a recognized postsecondary credential.

Levels of Participation

CTE Participant

A student who has earned one or more credits in any career and technical education program area.

CTE Concentrator

A secondary student who, in grades 9 through 12, has earned credit in at least two courses in a single career cluster program at the intermediate or capstone level.

COURSE-BASED STANDARDS

Individual CTE courses, which make up the sequence of courses for Programs of Study, include content area standards and indicators to provide a framework for quality teaching and learning. While not required by state law, districts are encouraged to adopt these State Model Programs of Study and their related course-based standards. CTE State Model Programs of Study and course-based standards are revised on a five-year cycle to remain responsive to the rapid advances and needs of business and industry, help students explore a variety of postsecondary options and corresponding entrance requirements to help identify their next steps, and to align to changes in postsecondary programs.

Standards

At the highest level of generality, content area standards include a set of broad, overarching content-based statements that describe the basic cognitive, affective, or psychomotor expectations of students. They reflect long-term goals for learning.

Indicators

Under each standard are indicators, which further describe what a student must know and be able to do to meet the standard. Indicators are performance-based statements that provide educators with a clear understanding of the expected level of student learning and guidance. Indicators provide guidance for an assessment of student learning.

EXPANDED LEARNING OPPORTUNITIES

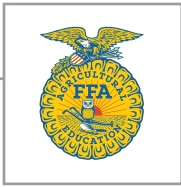
Expanded learning opportunities build on, support, and enhance learning within and outside of regular school programming. They are a critical component of Nebraska's educational landscape and should be intentionally supported to further develop students' college and career readiness. To signal aligned expanded learning opportunities, each Program of Study identifies additional areas where students may desire to personalize their program and take additional coursework or work-based learning that aligns with their interests. These expanded learning opportunities are not considered part of a Program of Study nor are they required, but rather a meaningful opportunity for students to continue to learn after completing the Program of Study sequence of courses within the context of their career interests. Along with aligned coursework, two prominent expanded learning opportunities include participating in Work-based Learning or a Career and Technical Student Organization.

Work-Based Learning

Work-Based Learning (WBL) connects learners with employers to prepare them for success in an everchanging workplace. WBL is a planned program of meaningful experiences related to the career interests of learners that enables them to acquire knowledge and skills in a real or simulated work setting. It requires strong partnerships between schools, colleges, and local employers. WBL is learning through work, not simply learning about work. Expanding high-quality WBL opportunities for students is one of Nebraska's CTE strategic priorities and is a program quality accountability indicator. Nebraska CTE affirms WBL as a critical component of career development. Throughout the State Model Programs of Study, courses where WBL is embedded into the class is noted in the course title (e.g., "Architecture & Construction Work-Based Learning Experience"). It is also signaled as an expanded learning opportunity across all programs of study.

Career And Technical Student Organizations

Career and Technical Student Organizations (CTSOs) are an extension of classroom instruction—applying classroom learning to real-world experiences. CTSOs provide opportunities for all students to develop career readiness skills through activities, competitions, and community service. Nebraska recognizes seven CTSOs aligned with the state’s Programs of Study and career field areas. These include:



AGRICULTURE, FOOD,
AND NATURAL RESOURCES



BUSINESS, MARKETING, AND MANAGEMENT



COMMUNICATION AND INFORMATION SYSTEMS



HEALTH SCIENCES



HUMAN SCIENCES AND EDUCATION



SKILLED AND TECHNICAL SCIENCES

CAREER READINESS STANDARDS

Embedded into the State Model Programs of Study and courses are the Nebraska Career Readiness standards. These standards rest on important “practices and proficiencies” with long-standing importance in career education. These standards and related practices are not limited to formal CTE programs nor to the middle school or high school level. Rather, these standards and practices should be used over and over again with increasing complexity and relevance by students as they progress through their educational pathway. The standards themselves do not dictate curriculum, pedagogy or delivery of content. Schools and colleges may handle the teaching and assessing of these standards in many different ways.

THE CAREER READY INDIVIDUAL...



1. Applies appropriate academic and technical skills



2. Communicates effectively and appropriately



3. Contributes to employer and community success



4. Makes sense of problems and perseveres in solving them



5. Uses critical thinking



6. Demonstrates innovation and creativity



7. Models ethical leadership and effective management



8. Works productively in teams and demonstrates cultural competency



9. Utilizes technology



10. Manages personal career development



11. Attends to personal and financial well-being

AGRICULTURE, FOOD, AND NATURAL RESOURCES

PROGRAMS OF STUDY



AGRICULTURE, FOOD, AND
NATURAL RESOURCES

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|--|--|--|---|---|
| AGRICULTURAL POWER, STRUCTURE, & TECHNOLOGY | <p>011000 - Introduction to AFNR with Work-Based Learning Experience, OR</p> <p>018060 - CASE Introduction to AFNR with Work-Based Learning Experience</p> | <p>016004 - Welding, OR</p> <p>016000 - Power, Structural, & Technology Systems Fundamentals, OR</p> <p>018066 - CASE Agriculture Power & Technology</p> | <p>016005 - Metals & Fabrication, OR</p> <p>Agricultural Technology, OR</p> <p>016006 - Precision Agriculture, OR</p> <p>016003 - Advanced Power, Structural, & Technology Systems</p> | <p>017000 - Agriculture, Food, and Natural Resources Leadership and Career Readiness with Work-Based Learning</p> |
| AGRIBUSINESS | <p>011000 - Introduction to AFNR with Work-Based Learning Experience, OR</p> <p>018060 - CASE Introduction to AFNR with Work-Based Learning Experience</p> | <p>011009 - Agricultural Business, OR</p> <p>CASE Agribusiness</p> | <p>Agricultural Sales, OR</p> <p>Agricultural Communication, OR</p> <p>011010 - Agricultural Economics, OR</p> <p>012005 - Agricultural Entrepreneurship</p> | <p>017000 - Agriculture, Food, and Natural Resources Leadership and Career Readiness with Work-Based Learning</p> |
| ANIMAL SCIENCE | <p>011000 - Introduction to AFNR with Work-Based Learning Experience, OR</p> <p>018060 - CASE Introduction to AFNR with Work-Based Learning Experience</p> | <p>011004 - Animal Science, OR</p> <p>018062 - CASE Animal Science</p> | <p>011006 - Small Animal Management, OR</p> <p>011005 - Large Animal Management, OR</p> <p>011015 - Veterinary Science, OR</p> <p>012004 - Agriculture, Biotechnology, OR</p> <p>018063 - CASE Animal and Plant Biotechnology</p> | <p>017000 - Agriculture, Food, and Natural Resources Leadership and Career Readiness with Work-Based Learning</p> |
| DIVERSIFIED AGRICULTURAL SCIENCE | <p>011000 - Introduction to AFNR with Work-Based Learning Experience, OR</p> <p>018060 - CASE Introduction to AFNR with Work-Based Learning Experience</p> | <p>Diversified Agriculture</p> | <p>Integrated Agricultural Science</p> | <p>017000 - Agriculture, Food, and Natural Resources Leadership and Career Readiness with Work-Based Learning</p> |



AGRICULTURE, FOOD, AND NATURAL RESOURCES

PROGRAMS OF STUDY



AGRICULTURE, FOOD, AND
NATURAL RESOURCES

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|--|--|--|---|---|
| ENVIRONMENTAL & NATURAL RESOURCES | <p>011000 - Introduction to AFNR with Work-Based Learning Experience, OR</p> <p>018060 - CASE Introduction to AFNR with Work-Based Learning Experience</p> | <p>013000 - Environmental & Natural Resources, OR</p> <p>018064 - CASE Natural Resources and Ecology</p> | <p>013001 - Wildlife Management, OR</p> <p>013002 - Environmental & Natural Resources Management</p> | <p>320702 - Agriculture, Food, And Natural Resources Work-Based Learning Experience</p> |
| FOOD PRODUCTS & PROCESSING | <p>011000 - Introduction to AFNR with Work-Based Learning Experience, OR</p> <p>018060 - CASE Introduction to AFNR with Work-Based Learning Experience</p> | <p>014000 - Food Science & Safety, OR</p> <p>018065 - CASE Food Science & Safety</p> | <p>014001 - Food Products & Technology</p> | <p>320702 - Agriculture, Food, And Natural Resources Work-Based Learning Experience</p> |
| PLANT SCIENCE | <p>011000 - Introduction to AFNR with Work-Based Learning Experience, OR</p> <p>018060 - CASE Introduction to AFNR with Work-Based Learning Experience</p> | <p>011007 - Plant Science, OR</p> <p>018061 - CASE Plant Science</p> | <p>011008 - Crop Management & Agronomy, OR</p> <p>Nursery Management, OR</p> <p>Landscape Design, OR</p> <p>012002 - Floriculture, OR</p> <p>012004 - Agricultural Biotechnology, OR</p> <p>018063 - CASE Biotechnology</p> | <p>320702 - Agriculture, Food, And Natural Resources Work-Based Learning Experience</p> |



BUSINESS, MARKETING, AND MANAGEMENT

PROGRAMS OF STUDY



BUSINESS MANAGEMENT
& ADMINISTRATION CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|-------------------------|--|--|--|---|
| ACCOUNTING | 032300 - Introduction to Business, OR 032400 - College Introduction to Business, OR 033000 - Personal Finance, OR 033002 - Wealth Building Fundamentals | 030501 - Accounting 1, AND 030502 - Accounting 2 | 030503 - Accounting 3, AND 030504 - Accounting 4, OR 030302 - College Principles of Accounting | 320705 - Business Management Work-Based Learning Experience |
| ENTREPRENEURSHIP | 032300 - Introduction to Business, OR 032400 - College Introduction to Business, OR 038100 - Marketing | 030501 - Accounting 1, OR 038101 - Marketing Management | 032370 - Entrepreneurship, OR 032600 - College Introduction to Entrepreneurship | 320705 - Business Management Work-Based Learning Experience |
| MANAGEMENT | 032300 - Introduction to Business, OR 032400 - College Introduction to Business | 038101 - Marketing Management, OR 030900 - Business Law | 032802 - Management & Leadership | 320705 - Business Management Work-Based Learning Experience |



BUSINESS, MARKETING, AND MANAGEMENT

PROGRAMS OF STUDY



FINANCE CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|-----------------------|--|-----------------------|---|---|
| FINANCE | 032300 - Introduction to Business, OR 032400 - College Introduction to Business, OR 033000 - Personal Finance, OR 033002 - Wealth Building Fundamentals | 030501 - Accounting 1 | 038501 - AP Microeconomics, OR 038503 - College Microeconomics, OR 038500 - AP Macroeconomics, OR 038502 - College Macroeconomics, OR 111700 - Statistics/Probability, OR 031800 - Economics, OR 151000 - High School Economics | 320708 - Finance Work-Based Learning Experience |



MARKETING CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|-----------------------|---------------------|-------------------------------|---|---|
| MARKETING | 038100 - Marketing | 038101 - Marketing Management | 038200 - Advanced Marketing, OR 038201 - College Principles of Marketing | 320716 - Marketing Work-Based Learning Experience |



BUSINESS, MARKETING, AND MANAGEMENT

PROGRAMS OF STUDY



HOSPITALITY &
TOURISM CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|---|---|---|--|--|
| CULINARY ARTS & EVENT PLANNING | Fundamentals of Nutrition & Culinary Essentials (HSE) | 370021 - Culinary Skills 1, OR 370030 - ProStart 1 | 370022 - Culinary Skills 2, OR 370031 - ProStart 2, OR Baking & Pastry, OR Event Management with Work-Based Learning Experience | 320711- Hospitality & Tourism Work-Based Learning Experience, OR 032370 - Entrepreneurship, OR 032600 - College Introduction to Entrepreneurship, OR |
| HOSPITALITY & EVENT PLANNING | Introduction to Hospitality & Event Planning | 038101- Marketing Management, OR 370010 - Travel & Tourism | 032370 - Entrepreneurship, OR Event Management with Work-Based Learning Experience | 320711 - Hospitality & Tourism Work-Based Learning Experience |



COMMUNICATION AND INFORMATION SYSTEMS

PROGRAMS OF STUDY



COMMUNICATION ARTS CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|-----------------------------|------------------------|---------------------------|--|--|
| BROADCAST JOURNALISM | 270602 - Digital Media | 270609 - Video Production | 270610 - Media Production, OR 270604 - Foundations of Web Design | 320704 - Communication Arts Work-Based Learning Experience |
| DIGITAL DESIGN | 270602 - Digital Media | 270611 - Digital Design | 270613 - Advanced Digital Design, OR 270604 - Foundations of Web Design | 320704 - Communication Arts Work-Based Learning Experience |



INFORMATION TECHNOLOGY CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|----------------------------|---|--|--|--|
| BUSINESS TECHNOLOGY | 270501 - IT Applications 1, AND 270502 - IT Applications 2 | 270611 - Digital Design | 270604 - Foundations of Web Design, OR 030600 - Business Communication (BMM) | 320713 - Information Technology Work-Based Learning Experience, OR 320704 - Communication Arts Work-Based Learning Experience |
| CISCO NETWORKING | 270505 - CISCO I: Introduction to Networks | 270506 - CISCO II: Routing & Switching Essentials | 270507 - CISCO III: Scaling Networks | 320713 - Information Technology Work-Based Learning Experience |
| COMPUTER SCIENCE | 270704 - Foundations of Computing, OR 270504 - IT Fundamentals | 270703 - Computer Science Principles, OR 270702 - AP Computer Science Principles, OR 270708 - PLTW Computer Science Principles | 270701 - Computer Science A, OR 270712 - IB Comp Science, OR 270700 - AP Computer Science A, OR 270705 - Software Development, OR 270709 - PLTW Computer Science A | 320713 - Information Technology Work-Based Learning Experience |



COMMUNICATION AND INFORMATION SYSTEMS

PROGRAMS OF STUDY



INFORMATION TECHNOLOGY
CLUSTER (CONTINUED)

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|--------------------------------------|--|---|------------------------------------|--|
| DATA ANALYTICS AND MANAGEMENT | 270502 - IT Applications 2 | Data Literacy & Visualization | Introduction to Data Science | 320713 - Information Technology Work-Based Learning Experience |
| IT OPERATIONS MANAGEMENT | 270504 - IT Fundamentals, OR 270502 - IT Applications 2 | 270707 - Cybersecurity, OR 270711 - PLTW Cybersecurity | 270601 - Networking | 320713 - Information Technology Work-Based Learning Experience |
| WEB DEVELOPMENT | 270504 - IT Fundamentals, OR 270502 - IT Applications 2 | 270706 - Web Design & Development | 270604 - Foundations of Web Design | 320713 - Information Technology Work-Based Learning Experience, OR 320704 - Communication Arts Work-Based Learning Experience |



HEALTH SCIENCES

PROGRAMS OF STUDY



HEALTH SCIENCES

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|-------------------------------|---|---|--|--|
| BEHAVIORAL HEALTH | 077300 - Health Science I | 077801 - Behavioral Health I | 077802 - Behavioral Health II | 090128 - Careers in Mental Health (HSE), OR 320710 - Health Science Work-Based Learning Experience |
| BIOTECHNOLOGY RESEARCH | 077300 - Health Science I, OR 077803 - PLTW Principles of Biomedical Science I, AND 077804 - PLTW Principles of Biomedical Science II | 077600 - Medical Terminology, OR 130210 - Anatomy & Physiology, OR 077805 - PLTW Human Body Systems I, AND 077806 - PLTW Human Body Systems II | 012004 - Agriculture Biotechnology (AFNR), OR 077304 - Exploring Laboratory Medicine with Work-Based Learning | 320710 - Health Science Work-Based Learning Experience |
| HEALTH INFORMATICS | 077300 - Health Science I | 077301 - Health Science II, OR 077600 - Medical Terminology | 077800 - Health Info Tech, OR 077812 - Health Info Management and Ethics | 320710 - Health Science Work-Based Learning Experience |
| HEALTH SCIENCE | 077300 - Health Science I, OR 077803 - PLTW Principles of Biomedical Science I, AND 077804 - PLTW Principles of Biomedical Science II | 077301 - Health Science II, OR 130210 - Anatomy & Physiology, OR 077805 - PLTW Human Body Systems I, AND 077806 - PLTW Human Body Systems II, OR 077600 - Medical Terminology | 077302 - Health Science III, OR 077400 - Nursing Assistant/ CNA Certification, OR 077401 - Medical Aide Certification, OR 077402 - Emergency Medical Technician Certification, OR 077807 - PLTW Medical Interventions I, AND 077808 - PLTW Medical Interventions II, OR 077444 - Pharmacy Technician, OR 077446 - Phlebotomy Technician | 077900 - Allied Health & Medicine, OR 077303 - Personal and Community Medical Issues/ Public Health, OR 320710 - Health Science/ HS&E Work-Based Learning Experience 077809 PLTW Biomedical Innovation I, AND 077810 PLTW Biomedical Innovation II |
| LIFE SPAN PERFORMANCE | 077300 - Health Science 1 | 130210 - Anatomy & Physiology, OR 077600 - Medical Terminology, OR 090124 - Nutrition (HSE) | 077500 - Introduction to Sports Medicine, OR 077601 - Exercise Science, OR 077701 - Performance Nutrition, OR Lifespan Nutrition & Wellness (HSE) | 320712 - HS&E Work-Based Learning Experience, OR 320710 - Health Science Work-Based Learning Experience |



HUMAN SCIENCES AND EDUCATION

PROGRAMS OF STUDY



EDUCATION & TRAINING CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|---------------------------------|--|--|---|--|
| EDUCATION & TRAINING | Teaching as a Profession, AND 090123 - Lifespan Development | 350002 - Best Practices in Education & Training with Work-Based Learning | Education & Training Practicum with Work-Based Learning | 090119 - Child Development, OR 090127 - Families in Crisis, OR Introduction to Education Dual Credit, OR 320706 - Education & Training Work-Based Learning Experience |



HUMAN SERVICES CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|---|--|--|--|--|
| CHILD, YOUTH, & FAMILY STUDIES | 090123 - Lifespan Development, OR 090101 - Introduction to Family & Consumer Sciences | 090119 - Child Development, OR 090117 - Parents & Families, OR 090127 - Families in Crisis | 090116 - Interpersonal Relationships, OR Family & Community Advocacy, OR | 090104 - Life & Career Readiness, OR Interpersonal Relationships Dual Credit, OR 320712 - Human Services Work-Based Learning Experience |
| COUNSELING & MENTAL HEALTH | 090101 - Introduction to Family & Consumer Sciences, OR 090128 - Careers in Mental Health | 090127 - Families in Crisis | Family & Community Advocacy, OR 151200 - Psychology, OR 151210 - AP Psychology, OR 151300 - Sociology | 090116 - Interpersonal Relationships, OR 077801 - Behavioral Health 1, OR 077802 - Behavioral Health 2, OR 320712 - Human Services Work-Based Learning Experience |



HUMAN SCIENCES AND EDUCATION

PROGRAMS OF STUDY



HUMAN SERVICES CLUSTER (CONTINUED)

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|----------------------------------|---|---|--|---|
| DESIGN | 090126 - Introduction to Design | 090103 - Apparel Production & Construction, OR 090109 - Home Design and Interiors, OR 090206 - Fashion Design | 032370 - Entrepreneurship (BMM), OR 032600 - College Introduction to Entrepreneurship, OR 270613 - Advanced Digital Design (CIS) | 038100 - Marketing (BMM), OR 038200 - Advanced Marketing (BMM), OR 320712 - Human Sciences Work-Based Learning Experience |
| EARLY CHILDHOOD EDUCATION | 090101 - Introduction to Family & Consumer Sciences, OR 090123 - Lifespan Development | 090119 - Child Development, AND Best Practices in Early Childhood Education with WBL | Early Childhood Education Practicum with Work-Based Learning | 090121 - Early Childhood Education Dual Credit, OR 090127 - Families in Crisis, OR Family & Community Advocacy, OR 320712 - Human Services Work-Based Learning Experience |
| FOOD SCIENCE | 090107 - Fundamentals of Nutrition & Culinary Essentials, | 090131 - Nutrition | 090130 - Food Science | 032370 - Entrepreneurship (BMM), OR 320702 - AFNR Work-Based Learning Experience, OR 077702 - Lifespan Nutrition & Wellness, OR 320712 - Human Sciences Work-Based Learning Experience |
| NUTRITION & WELLNESS | 090107 - Fundamentals of Nutrition & Culinary Essentials, OR 090101 - Introduction to Family & Consumer Sciences | 090131 - Nutrition | 077702 - Lifespan Nutrition & Wellness | 090130 - Food Science, OR 077601 - Exercise Science, OR Nutrition Dual Credit, OR 320712 - Human Sciences Work-Based Learning Experience |



HUMAN SCIENCES AND EDUCATION

PROGRAMS OF STUDY



LAW, PUBLIC SAFETY,
CORRECTIONS, & SECURITY CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|---|---|---|---|---|
| CORRECTIONS & LAW ENFORCEMENT SERVICES | 390010 - Foundations of Law, Public Safety, Corrections, & Security | 390015 - Introduction to Criminal Justice, OR 390010 - Introduction to Corrections | 390025 - Courts & Judicial Processes, OR 390026 - Police & Society, OR | 151200 - Psychology, OR 151210 - AP Psychology, OR 151300 - Sociology, OR 090127 - Families in Crisis, OR 320714 - Law, Public Safety, Corrections, & Security Work-Based Learning Experience |
| EMERGENCY & FIRE MANAGEMENT | 390010 - Foundations of Law, Public Safety, Corrections, & Security | 390020 - Emergency & Fire Management | 077402 - Emergency Medical Technical Certification | 077600 - Medical Terminology, OR 320714 - Law, Public Safety Work-Based Learning Experience |



SKILLED AND TECHNICAL SCIENCES

PROGRAMS OF STUDY



ARCHITECTURE AND CONSTRUCTION CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|-----------------------------|---|---|---------------------------------|---|
| ARCHITECTURAL DESIGN | 100100 - Introduction to Skilled and Technical Sciences | 100140 - Architectural Design 1, OR 090109 - Home Design and Interiors (FCS) | 100141 - Architectural Design 2 | 320703 - Architecture & Construction Work-Based Learning Experience |
| CONSTRUCTION | 100100 - Introduction to Skilled and Technical Sciences, OR 100405 - Residential Electricity | 1000110 - Construction Trades 1, OR 016000 - Power, Structural, & Technology Systems Fundamentals (AFNR) | 100120 - Construction Trades 2 | 320703 - Architecture & Construction Work-Based Learning Experience |



ENERGY AND ENGINEERING CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|-----------------------|--|--|---|--|
| ENERGY | 100406 - Fundamentals of Energy | 100408 - Sustainable Energy | 100407 - Physics & Mathematics of Energy | 320707 - Energy & Engineering Work-Based Learning Experience |
| ENGINEERING | 100100 - Introduction to Skilled and Technical Sciences, OR 103191 - Engineering Design & Systems Thinking, OR 100160 - PLTW Principles of Engineering, OR 100161 - PLTW Introduction to Engineering Design | 103192 - Engineering Problem Solving, OR 103194 - Robotics, OR 100164 - PLTW Aerospace Engineering, OR 100162 - PLTW Civil Engineering & Architecture, OR 101901 - PLTW Computer Integrated Manufacturing, OR 100403 - PLTW Digital Electronics | 103193 - Systems Engineering & Project Management, OR 103195 - Advanced Robotics, OR 100163 - PLTW Engineering Design & Development | 320707 - Energy & Engineering Work-Based Learning Experience |



SKILLED AND TECHNICAL SCIENCES

PROGRAMS OF STUDY



MANUFACTURING CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|-----------------------|--|---|--|---|
| MANUFACTURING | <p>100100 - Introduction to Skilled and Technical Sciences, OR</p> <p>100130 - Drafting & Design</p> | <p>101920 - Manufacturing Processes - Woods, OR</p> <p>101400 - Manufacturing Processes - Metals, OR</p> <p>101950 - Manufacturing Processes - Plastics, OR</p> <p>100401 - Introduction to Electronics</p> | <p>101921 - Manufacturing Production - Woods, OR</p> <p>101401 - Manufacturing Production - Metals, OR</p> <p>101951 - Manufacturing Production - Plastics, OR</p> <p>101900 - Introduction to Mechatronics, OR</p> <p>100402 - Advanced Electronics, OR</p> | <p>320715 - Manufacturing Work-Based Learning Experience</p> <p>101922 - Advanced Manufacturing & Fabrication – Woods, OR</p> <p>101402 - Advanced Manufacturing & Fabrication – Metals, OR</p> <p>101952 - Advanced Manufacturing & Fabrication – Plastics</p> |
| WELDING | <p>100100 - Introduction to Skilled and Technical Sciences</p> | <p>101930 - Welding 1, OR</p> <p>016004 - Welding (AFNR)</p> | <p>101940 - Welding 2, OR</p> <p>016005 - Metals & Fabrication (AFNR)</p> | <p>101941 - Welding 3, OR</p> <p>320715 - Manufacturing/Welding Work-Based Learning Experience</p> |



TRANSPORTATION, DISTRIBUTION, AND LOGISTICS CLUSTER

| Program of Study Name | Introductory Course | Intermediate Course | Capstone Course | Expanded Learning Opportunity |
|---|---|--|---|---|
| TRANSPORTATION, DISTRIBUTION, & LOGISTICS - SUPPLY CHAIN | <p>101601 - Introduction to Transportation, Distribution & Logistics</p> | <p>100610 - Distribution & Logistics</p> | <p>101650 - Business Logistics</p> | <p>320717- Transportation, Distribution & Logistics Work-Based Learning Experience</p> |
| TRANSPORTATION, DISTRIBUTION, & LOGISTICS - TECHNICIAN | <p>100100 - Introduction to Skilled and Technical Sciences, OR</p> <p>Power Equipment, OR</p> <p>016003 - Power, Structural, and Technical Systems (AFNR)</p> | <p>101600 - Transportation 1</p> | <p>101620 - Transportation_2, OR</p> <p>101640 - Collision Repair</p> | <p>101630 - Transportation_3, OR</p> <p>320717 - Transportation, Distribution, & Logistics Work-Based Learning Experience</p> |



