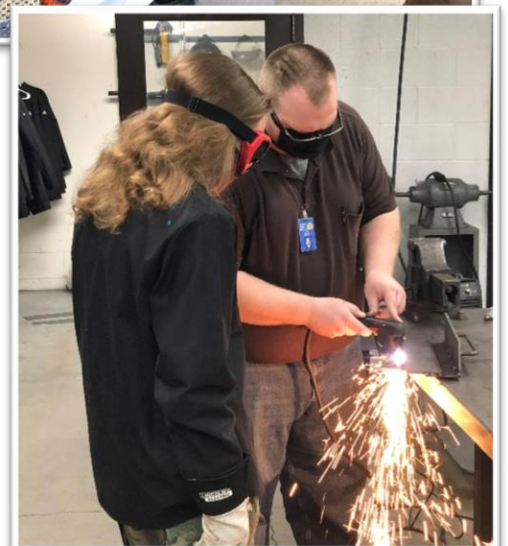
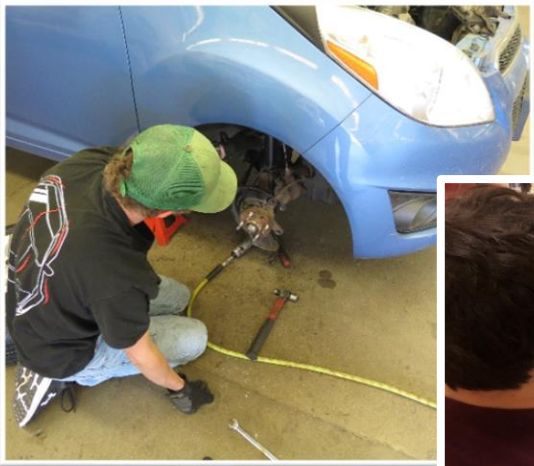




CAREER PATHWAYS

Awareness, Exploration, and Preparation

Choice Ready Planning 2025-2026



Career Planning Overview

- 3 Career Planning Overview
- 4 North Dakota Choice Ready
- 5 Graduation Requirements
- 34 Career Ready Work Experience
- 35 Extended Learning Experience

Planning & Support

- 6 North Dakota Scholarship Requirements
- 7 North Dakota Scholarship Chart
- 8 Why Career Pathways
- 9-10 FPS Career Planning
- 11 Critical 21st Century Skills
- 36 Four-Year Plan Template

Fargo & Cass County CTE Center

Career Clusters Pathways

- 12 Agriculture, Energy & Natural Resources
- 14 Construction
- 16 Arts, Entertainment, & Design
- 18 Financial Services
- 20 Healthcare & Human Services, Public Service & Safety
- 22 Education, Hospitality, Events, & Tourism
- 24 Digital Technology
- 26 Advanced Manufacturing
- 28 Marketing & Sales, Management & Entrepreneurship
- 30 Technology, Engineering & Design
- 32 Supply Chain & Transportation





Dear Students, Parents, and Community members:

Students are often asked,

“What do you want to be when you grow up?”

From kindergarten through elementary, middle school to high school, learners in the Fargo Public Schools are afforded access to academic, career-based, and extra-curricular activities to begin this journey. Academic foundations provide the knowledge, and essential skills learners need to be successful across all disciplines. Extra-curricular experiences often promote teamwork, leadership and perseverance, while career-based curriculums open the door for career awareness, exploration and preparation related to specific career clusters.

Career and technical education and academic elective courses are designed to enrich learner education through a career lens including career awareness, real-world projects, industry aligned skills, technology integration, job shadowing, and post-secondary partnerships. Learner self-reflection compels students to discover interests and acknowledge aptitudes which can set the stage for beginning exploration of career pathways in high school.

The Fargo Career Pathways booklet is a resource to inform learners and families on this quest to:

- provide awareness of the 14 Career Clusters and Sub-Clusters for career discovery
- outline the coursework for Fargo career pathways
- communicate essential information to students, parents, staff, and community stakeholders
- connect high school academic and career and technical education coursework with students to begin career exploration
- align student interests and aptitude with career pathways
- inform learners about future viable job opportunities related to each career pathway
- provide information about North Dakota post-secondary colleges and degree programs aligned to each career pathway
- provide parents and students with tools to plan and make informed decisions
- promote requirements to be eligible for the North Dakota Scholarship and Choice-Ready indicators
- outline Fargo graduation requirements and 21st Century Skills dispositions
- communicate important assessments for self-reflection and college preparation
- connect essential career support resources with students and families

Fargo Public School’s mission is “Educating and empowering all students to succeed!” The exploration of career pathways provides choice to engage students in their own learning and discovery in passion areas. Coursework exposes students to future career options and skills to prepare them for the next steps beyond high school. With so many career options to choose from, making the most of the high school experience is critical! The Career Pathway Guide is a resource to inform and begin intentional four-year planning to make sure all Fargo learners graduate Choice-Ready, and ultimately, understand their options on their pathway as an adult!

Thank you for your support and participating in the career planning for student success!

NORTH DAKOTA CHOICE READY

The North Dakota **CHOICE READY** framework is a tool to assist educators to ensure all students successfully depart high school possessing the **ESSENTIAL SKILLS** necessary to be ready for life. The journey begins by ensuring students leave having the **ESSENTIAL SKILLS** to be successful for whichever path they choose. Students shall then strive to be **POST-SECONDARY READY**, **WORKFORCE READY**, and/or **MILITARY READY**.



ESSENTIAL SKILLS

Earn a North Dakota high school diploma

Complete a 9-week Career Education Course/Individual Counseling (15.1-21-18), Financial Literacy (15.1-21-21), and pass ND Civics Test (15.1-21-27), Computer Science/Cybersecurity Requirement (15.1-21-02.2), and **four or more additional indicators**:

- 25 hours of Community Service
- Two or More Years in Organized Extra-Curricular Activities
- 95% Attendance (not counting school-related absences)
- Successfully Complete a Capstone Project
- Career Exploration Experience
- Successfully Complete an Online Learning Course
- Two or More Years in Organized Co-Curricular Activities
- Demonstrate Competency in 21st Century Skills
- Multicultural Awareness

Students shall then complete two or more of the **CHOICE READY** components below.



POST-SECONDARY READY

Complete a **Four-Year Rolling Career Plan**, and earn a **2.8 GPA or greater**, and complete one academic indicator set below:

ACT / SAT minimum or subsections scores:

ACT English – 18

ACT Reading – 22

ACT Math – 21

ACT Science – 23

SAT Reading/Writing – 480

SAT Math – 530

or

Two or more additional indicators:

- Advanced Placement Course (A, B, or C) or (4, 3, or 2)
- Dual Credit Course (A, B, or C) or (4, 3, or 2)
- Algebra II (A, B, or C) or (4, 3, or 2)
- Advanced Placement Exam (3+)
- International Baccalaureate Exam (4+)
- 3.0 GPA in core course requirement for NDUS admission
- CREAM (Eng./Math) Course (70% or greater)
- Complete three Fine Arts Courses (A, B, or C) or (4, 3, or 2)



WORKFORCE READY

Complete a **Four-Year Rolling Career Plan**, and complete two or more additional indicators:

- Complete three CTE courses or more (A, B, or C) or (4, 3, or 2)
- Complete Career Ready Practices (3.0)
- Dual Credit Course (A, B, or C) or (4, 3, or 2)
- WorkKeys (Gold or Silver)
- Technical Assessment/Industry Credential
- Workplace Learning Experience (40 hrs)
- Work-based Learning Experience (Perkins V) (40 hrs)
- NDSA (Reading/Math) Level 3 or greater
- Complete three World Language Courses (A, B, or C) or (4, 3, or 2)



MILITARY READY

Complete a **Four-Year Rolling Career Plan** and obtain an **ASVAB score of 31 or greater** (as determined by branch), or acceptance into the military.

Quality Citizenship (No Expulsions/Suspensions)

Physically Fit (Successfully complete required PE courses (A, B, or C) or (4, 3, or 2))

and

Complete **two or more** additional indicators from the **Post-Secondary** or **Workforce** options

or

Complete two credits of JROTC or Civil Air Patrol

or

Complete **two credits** in the Military Pathway Program, selecting from the following 1/2 credit courses:

- Intro to Military Careers
- Military Health & Fitness
- ASVAB Essentials
- Career Foundations in Military Leadership
- Military Leadership Capstone

Revised July 2025



The proper selection of courses by students is an important matter. Each course should be carefully selected as an integral part of the student's four-year educational plan. **Carefully thought-out course selections are equally important to the school district because commitments for staffing for the ensuing year are based on the student selections. Therefore, follow building guidelines for schedule change requests.**

Graduation requirements are minimum standards. Students are encouraged to take additional courses during the school year and summer school sessions.

Fargo Graduation Requirements

<u>Required Course</u>	<u>Credits</u>
English.....	4
Math.....	3
• Algebra I or Algebra I Conclusion • Geometry or Informal Geometry • one other math credit	
Science	3
• Physical Science • Biology or AP Biology • one other Science Credit	
Physical Education	½
Health.....	½
Social Studies (listed below)	
• Western Civilization or AP European History • US History or AP US History..... • Government or AP Government • Economics or AP Economics.....	1 1 ½ ½
World Language, Fine Arts, Career Technical Education	3
Elective Credits	5
Credits Required for Graduation	22

The **Advanced Placement Program**, a part of *College Board*, encourages high schools to offer challenging college-level work to able students. The Advanced Placement exam scores provide an opportunity for high school students to earn college credit. Fargo high school students may qualify for the examinations in most areas by taking the AP courses offered at Davies, North, or South High Schools. The exact cost of the exam (approximately \$100.00) will be announced before students order their tests and is payable at the time of the order.

Students in grade 10 - 12 are allowed to earn dual credit for some classes and apply the credit earned to both their high school and college transcripts.

****Refer to the Program of Studies for details related to graduation requirements.**

North Dakota

Resident Student Scholarship

In planning your future, every dollar counts!



The North Dakota Scholarship was created during the 2021 Legislative Session by SB 2289. The North Dakota Scholarship aims to align scholarship requirements to the Choice Ready initiative and is worth \$6,000 to any student who meets the qualifications and plans to attend a college or university in North Dakota. The scholarship can also be applied to the cost of certification for welding, hair design, etc.

The North Dakota Scholarship has several components. The first component is essential skills. All students must fulfill the requirements of the essential skills in order to be eligible for the scholarship. The next three components are Post-Secondary Ready, Workforce Ready, and Military. Students must meet 2 of those 3 components to be eligible. Any student that meets the essential skill requirements, as well as 2 of the 3 (Post-Secondary Ready, Workforce Ready, and Military Ready) components qualifies for the North Dakota Scholarship.

Please see the North Dakota Scholarship Framework for specific details on the requirements of each component of the North Dakota Scholarship Requirements. Students or parents may monitor their progress by accessing the Choice Ready link within Powerschool. Eligible students must apply for the scholarship before the June 15th deadline and also may defer the scholarship for up to two years. See your counselor for more details.

To verify indicators for the North Dakota scholarship:

- Public schools need to ensure that the correct indicators are marked when they complete the Choice Ready report for each student. The due date for schools to complete the Choice Ready report is June 30. Any indicator that is not marked in the Choice Ready report will not be allowed to be used to meet scholarship eligibility criteria!
- Non-public schools need to complete and submit the Non-Public School Verification Form.
- Parents of home educated students need to complete, sign, have notarized, and submit the Home Education Verification Form.
- [North Dakota Scholarship | North Dakota Department of Public Instruction](#)

Who is eligible for the scholarship application?

- Students earning a GED are not eligible for scholarship the application.
- Home educated students are eligible for the scholarship application with verified documentation by completing the Home Education Transcript for the North Dakota Scholarship Program [SFN 60374](#), Home Education Verification for the Scholarship, and “Statement of Intent – Home Education Statutory Requirements” [SFN 16909](#) form that was filed with their school district for the past four years that their child was home-educated.
- Students receiving a diploma from the ND Center for Distance Education are eligible for scholarship application with verified documentation of all eligibility requirements.
- [Scholarship FAQ](#)



ESSENTIAL SKILLS (15.1-21-02.10(5))

Check here when student has complete Essential Skills ☐

- ☐ Earn a **North Dakota high school diploma**
- ☐ Complete a **9-week Career Education/Individual Counseling, 4-year Rolling Plan**, pass **ND Civics Test**, earn a **3.0 or higher overall GPA**, and **four or more** additional indicators:
 - ☐ 25 hours of Community Service
 - ☐ 95% Attendance (not counting school related absences)
 - ☐ Career Exploration Experience
 - ☐ Two or more years in organized Co-Curricular Activities
 - ☐ Two or more years in organized Extra-Curricular Activities
 - ☐ Successfully complete a Capstone Project
 - ☐ Successfully complete an online learning course
 - ☐ Demonstrate competency in 21st Century Skills

Students shall achieve Essential Skills above, and complete two or more of the **CHOICE READY** components below to be eligible for the ND Scholarship.



POST-SECONDARY READY

Check here when student is Post-Secondary Ready ☐

Complete both indicator sets below:

- ACT/SAT minimum composite score:
- ☐ ACT composite of 24 (or equivalent NDA+ score), or
 - ☐ SAT composite of 1180

and

Two or more additional indicators:

- ☐ Advanced Placement Course (A, B, or C) (4, 3, or 2)
- ☐ Dual Credit Course (English or Math) (A, B, or C) (4, 3, or 2)
- ☐ Algebra II (A, B, or C) (4, 3, or 2)
- ☐ Advanced Placement Exam (3+)
- ☐ International Baccalaureate Exam(4+)
- ☐ 3.0 GPA in core course requirements for NDUS admission
- ☐ 3 fine arts courses (A, B, or c) (4, 3, or 2)



WORKFORCE READY

Check here when student is Workforce Ready ☐

Complete both indicator sets below:

- ☐ 4 credits of CTE with 2 credits in the same plan of study, OR 3 credits of the same world, indigenous, or sign language, OR 2 credits of teaching-related coursework plus 2 credits of CTE, as defined in NDCC 15.1-21-02.10
- ☐ ACT of 24 (or equivalent NDA+ score), or 5 or higher on all three WorkKeys tests or SAT composite of 1180

and

Two or more additional indicators:

- ☐ Complete Career Ready Practices Course
- ☐ Dual Credit Course (A, B, or C) (4, 3, or 2)
- ☐ Technical Assessment/Industry Credential
- ☐ Workplace Learning Experience (40 hrs.)
- ☐ Work-based Learning Experience (Perkins V) (40 hrs.)
- ☐ NDSA or NDA+(Reading/Math) Level 3 or greater



MILITARY READY

Check here when student is Military Ready ☐

Complete both indicator sets below:

- ☐ **ASVAB score of 50 or greater**, or ASVAB score of 31 or greater and have completed Basic Training;
- ☐ **Physically Fit** – Successfully complete required PE courses (A, B, or C) (4, 3, or 2);

and one option below

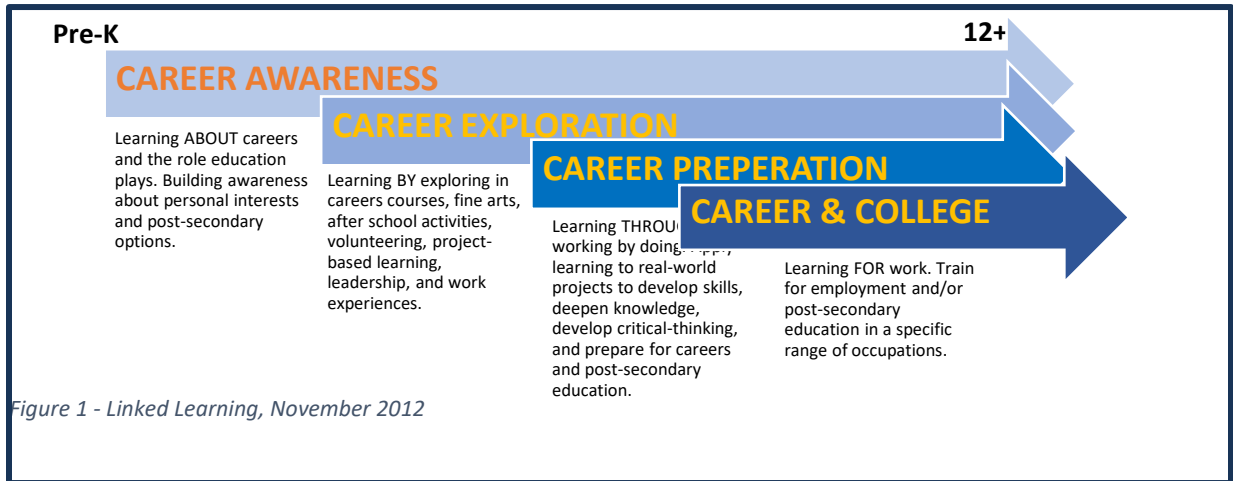
☐ Complete **two or more** additional indicators from the **Post-Secondary or Workforce options**:

- ☐ _____
- ☐ _____

- ☐ 2 credits of military coursework, as defined in NDCC 15.1-21-02.10
- ☐ 2 credits of JROTC
- ☐ Complete Phase 1 of the Cadet Civil Air Patrol program

What are you passionate about? Can you identify your strengths and skills? Where do you see yourself after high school?

The K-12 Career Pathway process allows learners to explore who they are, discover interests, and select courses to help them think critically, develop creativity, communicate, collaborate, and prepare a plan for high school and their future!

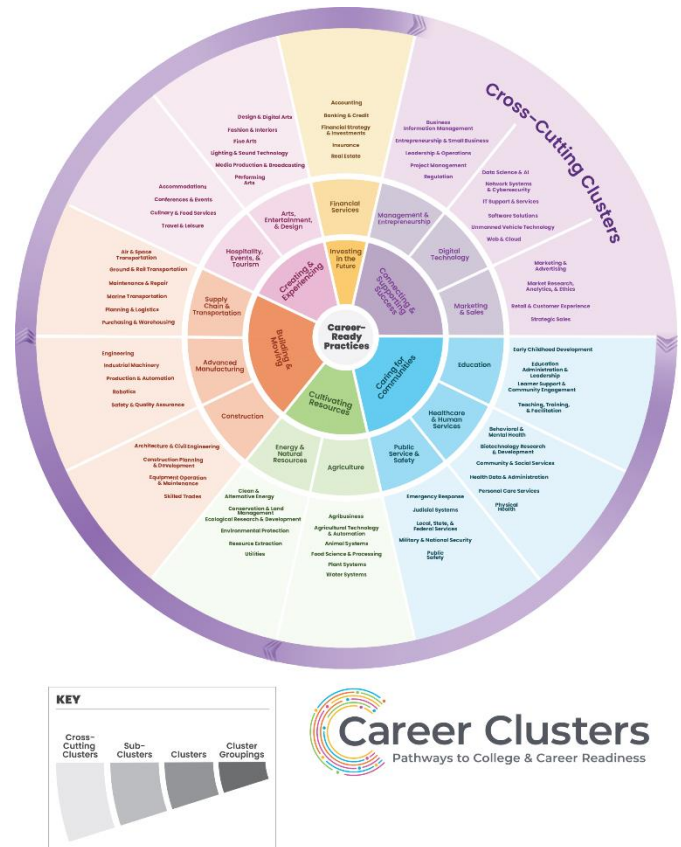


NEW -Career Clusters

Career Clusters serve as the primary organizing structure for CTE programs. The Clusters share common interests, skills, and strengths. Since there are many roads to success, learners are not locked into one pathway but can begin by exploring those of interest first. As learners experience more, they will develop a better understanding of themselves and best options for their future.

The NEW [Career Cluster Framework](#), launched in April 2025, consists of 14 Clusters and 72 Sub-Clusters, and three Cross-Cutting Clusters that serve all 14 Clusters.

Advanced Manufacturing	Education
Construction	Healthcare & Human Services
Supply Chain & Transportation	Public Service & Safety
Arts, Entertainment & Design	Agriculture
Hospitality, Events, & Tourism	Energy & Natural Resources
Financial Services	
Digital Technology	
Marketing & Sales	
Management & Entrepreneurship	



How will learners know what Cluster is a good fit?

In Fargo Public Schools, ALL students are provided with “Career Education” curriculum focused on understanding themselves in relation to their career. Beginning in kindergarten and continuing through graduation, students participate in planned activities that focus on learning about themselves including their strengths, interests, natural abilities, aptitudes, likes, and dislikes. The findings are compared and contrasted to information about various careers in which the students have an interest. Through these exercises’ students become more informed and are better able to develop career goals for themselves. They also gain a deeper appreciation for the inter-relatedness between what they learn in school and what they need to know to be successful employees.

← **FARGO K-12 CAREER PATHWAY ACTIVITIES** →

Career Awareness	Career Exploration	Career Preparation
K – Career Lessons	6th – Career Cluster Interests & Passions	9th – Career Lessons
1st – Career Lessons	7th - RU Ready Work Values Sorter, Soft Skills, Interpersonal, Work Skills Career on Wheels	10th – Career Lessons Career Expo – Fargo Dome Career Interest Profiler SAT, Pre-ACT
2nd – Career Lessons		
3rd – PAWS in Jobland		
4th – Career Interest Inventory	8th – RU Ready Career Cluster Survey & Interest Profile Fantasy Future & Goal Setting HS Counselor visit – POS & 4-Year Plans State Scholarship & College Resources	11th – Career Lessons Personality Inventory Job Shadow ACT
5th – Career Lessons Transition to Middle School		12th – Senior Conference College Application Job Shadow Plan Your Future, Career Day

Do You Need Help? Stop by the Counseling Center!

- Interest inventory results
- Assessment resources
- Career information and exploration
- Job shadowing experiences
- Service-learning experiences
- Post-secondary education options
- College catalogs, view books, & applications
- Letter of recommendation form
- Scholarship & financial aid information
- Job-find support
- Student career portfolios
- One-on-one career planning

Dakota High School Counseling Team
701-446-3020

Davies High School Counseling Team
701-446-5600

North High School Counseling Team
701-446-2412

South High School Counseling Team
701-446-2015



How will you start planning your career?

Assessments and interest inventories are designed to capture and quantify learner information and skills to guide them in their selection of career pathways, high school courses, and to create a career plan for the future. Results are viewed with students and School Counselors, Career Specialists, and/or parents and guardians. Learners are also encouraged to hold a part-time job, job shadow, volunteer, and/or participate in extra-curricular activities to explore interests and careers beyond the school setting as they offer real-world experiences and leadership opportunities.

Important Assessments for College and Career Planning

PreACT™ is a multiple-choice assessment that helps students prepare for the experience of taking the ACT® test and provides information regarding their future performance on the exam.

ASVAB is a multiple-aptitude battery that measures developed abilities and helps predict future academic and occupational success in the military and civilian careers.

PSAT is a three hour practice version of the SAT exam which can be taken once per year. Many students take the test in both 10th and 11th grade. A high score on the PSAT can qualify students to receive a National Merit Scholarship.

ACT® college readiness assessment is a standardized test for high school achievement and college admissions in the United States.

SAT measures critical reading skills, math problem-solving skills and writing skills.

Work Keys® Assessments measure foundational skills required for success in the workplace. The three

North Dakota Choice Ready - Four-Year Rolling Plan

The four-year plan is intended to serve as a guide for students and parents to navigate high school and beyond. The plan begins in eighth grade and focuses on academics, college, career, and military readiness, which allows students to project their four year goals for high school and into the future for their education and career. Each year, students will meet with a staff member who is familiar with Choice Ready from their school and best suited to discuss the student's needs to complete or update their plan. [ESSA Guide to Four-Year Rolling Plan](#)

Fargo Career Planning with RU Ready

RU Ready is a free online career resource available to all North Dakota K-12 schools to assist in career planning and lessons, assessments and activities. RU Ready is supported by the Department of Career and Technical Education.

Students will:

1. Complete career activities and interest assessments. Results are viewed at www.ruready.nd.gov.
2. Meet with a School Counselor or Career Specialist to find the career pathway that most closely matches interests and skills.
3. Look up course descriptions in the [Program of Studies](#) and develop a 4-Year Plan to include required courses and career specific electives to complete their Career Pathway of choice.
4. Follow, and revise, the 4-Year Plan to include required courses and career specific electives to complete a Career Pathway(s).
5. Consider exploring activities and courses, such as Career & Technical Education (CTE), Advanced Placement (AP), and Dual Credit (DC) college courses, that are related to the career pathway you choose

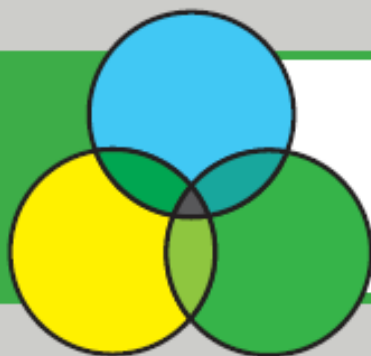
21st Century Skills

Metro 4Cs Rubric Performance Areas



Critical Thinking

- Information & Discovery
- Interpretation & Analysis
- Reasoning
- Constructing Arguments
- Problem Solving
- Systems Thinking



Collaboration

- Leadership & Initiative
- Cooperation
- Flexibility
- Responsibility & Productivity
- Collaborate Using Digital Media
- Responsiveness & Constructive Feedback



Communication

- Engaging in Conversations & Discussions
- Communicate Using Digital Media
- Communicating in Diverse Environments
- Delivering Oral Presentations
- Effective Listening

Writing to:

- Inform
- Support an Argument With Claims
- Engage and Entertain



Creativity

- Idea Generation
- Idea Design & Refinement
- Openness & Courage to Explore
- Work Creatively with Others
- Creative Production & Innovation

Shared Performance Areas for All 4Cs:

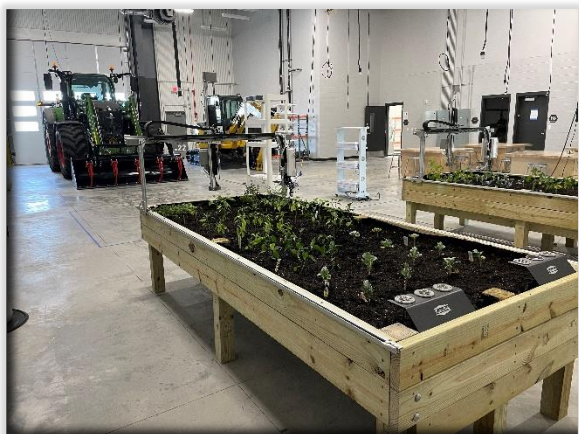
- Digital Citizenship & Ethical use
- Self Regulation & Reflection



Agriculture, Energy, & Natural Resources



Pathway	OCCUPATIONS RELATING TO THIS CAREER CLUSTER
Agribusiness Systems	Sales Manager • Ag Lender • Ag Economist • Ag Products Buyer/Distributor • Feed-Supply Store Manager • Farm Investment Manager • Ag Commodity Broker
Animal Systems	Wildlife Biologist • Animal Nutritionist • Livestock Buyer • Livestock Geneticist • Veterinarian • USDA Inspector • Aquaculturist • Equine Manager
Environmental Service Systems	Pollution Prevention Technician • Hazardous Materials Handler • Water Quality Manager • Health and Safety Sanitarian • Toxicologist
Food Products & Processing Systems	Food Scientist • Quality Control Specialist • Biochemist-Nutritionist • Dietician • Microbiologist • Bacteriologist • Food and Fiber Engineer • Produce Buyer
Natural Resources Systems	Park Manager • Range Technician • Ecologist • Fish & Game Officer • Forest Technician • Geology Technician • Mining Engineers • Hydrologist
Plant Systems	Soil/Water Specialist • Botanist • Tree Surgeon • Plant Pathologist • Commodity Marketing Specialist • Golf Course Superintendent • Custom Hay/Silage Operator
Power, Structural & Technical Systems	Remote Sensing Specialist • Equipment/Parts Manager • Welder • GPS Technician • Machinist • Heavy Equipment Maintenance Technician



Is this Pathway for you?

- Do you get satisfaction from helping people, animals and/or the environment?
- Are you interested in how things grow and make the best use of the earth's natural resources?
- Are you curious about how machines and systems work?
- Are you someone who likes to work with data to solve problems?
- Are you interested in science and enjoy spending time with nature?
- Do you like to be outdoors in all kinds of weather?
- Are you comfortable with situations that are unpredictable and rapidly changing?
- Do you like to plan, work with budgets, and keep records?

Agriculture, Energy, & Natural Resources	
Environmental Services Systems or Plant Systems	
Course Name	Cr
Introduction to Agriculture	.5
Plant Science I	.5
Plant Science II	.5
World & International Agriculture	.5
Career Innovation Center offerings	
Cooperative Work Experience	.5 - 1
Students must earn at least 2 credits in a CTE pathway and 2 additional CTE credits to qualify for the CTE Scholarship	

Other Electives to Consider for Agriculture Pathway Preparation
CTE Electives Basics of Business, Exploring Business Software Personal Finance, Accounting 1, Web Design Marketing, Management/Entrepreneurship Exploring Foods, Cultures & Cuisine Civil Engineering & Architecture Intro to Engineering Design, Principles of Engineering Robotics, Manufacturing Woods 1, 2 Welding I, II
Academic Electives Foreign Language, Human Geography AP Biology, Anatomy/Physiology Environmental Science, Chemistry Genetics, Earth Science, Field Biology **AP options may exist for some courses



North Dakota Agriculture, Energy, & Natural Resources Related Postsecondary Programs

Pathway	Certificate or Associate's Degree	Bachelor's Degree	Master's Degree or More
Agribusiness Systems	☐ Agriculture (BSC, DCB, NDSCS) ☐ Agricultural Sales and Service (DSU) ☐ Agriculture transfer (BSC, DCB, NDSCS, WSC) ☐ Farm/Ranch Management (BSC, DSU, NDSCS) ☐ Precision Agriculture (LRSC)	☐ Agribusiness (NDSU, VCSU) ☐ Agricultural and Biosystems Engineering (NDSU) ☐ Agricultural Communication (NDSU) ☐ Agricultural Economics (NDSU) ☐ Agricultural Education (NDSU) ☐ Agricultural Studies (DSU) ☐ Agricultural Systems Management (NDSU) ☐ General Agriculture (NDSU)	☐ Agribusiness and Applied Economics (NDSU) ☐ Agricultural and Biosystems Engineering (NDSU) ☐ Agricultural Education (NDSU) ☐ International Agribusiness (NDSU)
Animal Systems	☐ Animal Science (NDSCS) ☐ Pre-Veterinary Medicine transfer (BSC, DCB, TMCC) ☐ Wildlife Management (DCB, NDSCS, TMCC)	☐ Animal Science (NDSU) ☐ Equine Science (NDSU) ☐ Fisheries and Wildlife Science (UND, VCSU) ☐ Vet Technology (NDSU)	☐ Animal Science (NDSU)
Environmental Service Systems	☐ Energy Technician (SBC) ☐ Environmental Science/Technology (CCCC, DCB, NHSC, SBC, TMCC, UTTC) ☐ Water & Wastewater Treatment (BSC)	☐ Energy Management (BSC) ☐ Environmental Design (NDSU) ☐ Environmental Science (DSU, NHSC, SBC)	☐ Environmental and Conservation Science (NDSU) ☐ Environmental Science (SBC) ☐ Environmental Engineering (NDSU, UND)
Food Products & Processing Systems		☐ Food Safety (NDSU) ☐ Food Science (NDSU)	☐ Cereal Science (NDSU) ☐ Food Safety (NDSU)
Natural Resources Systems	☐ Land Management (DCB) ☐ Natural Resources Management (CCCC)	☐ Natural Resources Management (NDSU)	☐ Natural Resources Management (NDSU) ☐ Sustainable Energy Engineering (UND)
Plant Systems	☐ Agriculture Industry and Technology-Agronomy (BSC) ☐ Crop Production Sales & Technology (NDSCS) ☐ Forestry (DCB) ☐ Horticulture (DCB) ☐ Sustainable Vegetable Production (DCB)	☐ Botany (NDSU) ☐ Crop and Weed Sciences (NDSU) ☐ Horticulture (NDSU) ☐ Range Science (NDSU) ☐ Soil Science (NDSU) ☐ Sports and Urban Turfgrass Management (NDSU)	☐ Botany (NDSU) ☐ Horticulture (NDSU) ☐ Plant Pathology (NDSU) ☐ Plant Sciences (NDSU) ☐ Range Science (NDSU) ☐ Soil Science (NDSU)
Power, Structure, & Technical Systems	☐ Caterpillar Dealer Service Technician (NDSCS) ☐ Diesel Technology: Case IH, Gen. Diesel, Komatsu (NDSCS) ☐ John Deere Tech (NDSCS) ☐ Nuclear Power Technology (BSC) ☐ Oil Drilling/Operations (NHSC, SBC, TMCC) ☐ Petroleum Engineering Technology (BSC) ☐ Petroleum Production Technology (BSC, WSC) ☐ Power Plant Technology (BSC) ☐ Process Plant Technology (BSC, TMCC) ☐ Renewable Generation Technology (BSC) ☐ Wind Energy Technician (LRSC)	☐ Energy Management (BSC)	



The National FFA Organization is a local, state, and national co-curricular student association serving high school, college and middle school students enrolled in Agriculture Education courses. The National FFA is dedicated to making a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education. Fargo students enrolled in agriculture courses in collaboration with Northern Cass or Central Cass Agriculture Education will have the opportunity to participate in the National FFA Chapter. Contact your FFA Advisor to join.

Pathway	OCCUPATIONS RELATING TO THIS CAREER CLUSTER
Construction	Carpenter • Drywall Installer • Painter • Equipment and Materials Manager • Electrician • Plumber • Specialty Contractor • Project Inspector • Construction Engineer
Design/Pre-Construction	Building Code Official • Interior Designer • Architect • Surveying and Mapping Technician • Specification Writer • Drafter • Regional and Urban Planner
Maintenance/Operations	Code Official • Construction Engineer • Estimator • System Installer • Subcontractor • Hazardous Material Remover • Security and Fire Alarm System Manager



Is this Pathway for you?

- Are you curious to read and/or follow instructions, blueprints?
- Can you picture in your mind what a finished product could look like?
- Do you like to work with your hands?
- Are you attentive when completing work that requires patience and precise results?
- Are you interested in learning how to apply math to real projects?
- Do you work best with logical, step-by-step procedures to solve technical problems?
- Do you like to create or design projects that interest others?
- Does it interest you to use tools, technology, and/or operate machines?
- Can you see yourself working as a member of a team?

Construction – Coordinated Plan of Study	
Construction	
Course Name	Cr
Woods 1	1
Woods 2	.5
Finish Carpentry	.5
Construction Technology 1	1
Construction Technology 2	2
Construction Cooperative Work Experience Education	.5 - 4
Students must earn at least 2 credits in a CTE pathway and 2 additional CTE credits to qualify for the CTE Scholarship	
Other Electives to Consider for Trade & Industry Pathway Preparation	
CTE Electives Woods 1, 2 Construction Technology Intro to Engineering, Civil Engineering & Architecture Explore Business Software, Business Law, Personal Finance Basics of Business Marketing Housing and Interior Design Living on Your Own	
Academic Electives Art Electives Geometry, Informal Geometry, Calculus Environmental Science, Earth Science Public Speaking	

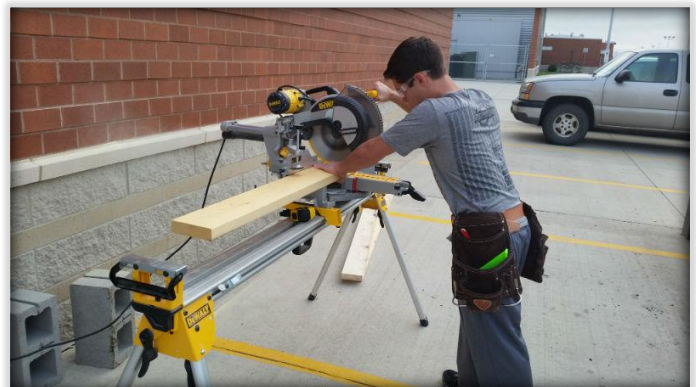




North Dakota Construction Related Postsecondary Programs			
Pathway	Certificate or Associate's Degree	Bachelor's Degree	Master's Degree or More
Construction	☐ Building Construction Technology (NDSCS, TMCC) ☐ Building Trades (SBC) ☐ Carpentry (BSC, BJCC, CCCC) ☐ Concrete (SBC, TMCC) ☐ Construction Management/Technology (CCCC, NDSCS, NHSC) ☐ Electrical Technology (NDSCS, SBC, TMCC) ☐ Framing (SBC) ☐ Heating Ventilation & Air Conditioning (BSC, CCCC, NDSCS, TMCC) ☐ Interior Construction (SBC) ☐ Land Surveying and Civil Engineering Technology (NDSCS) ☐ Plumbing (NDSCS) ☐ Sustainable Construction Technology (BSC)	☐ Construction Engineering (NDSU) ☐ Construction Management (NDSU)	☐ Construction Management (NDSU)
Design/Pre-Construction	☐ Architectural Drafting and Estimating Technology (NDSCS) ☐ Land Surveying and Civil Engineering Technology (NDSCS)	☐ Architecture (NDSU) ☐ Civil Engineering (NDSU) ☐ Construction Engineering (NDSU) ☐ Landscape Architecture (NDSU)	☐ Architecture (NDSU) ☐ Civil Engineering (NDSU)
Maintenance/Operations	☐ Facilities Maintenance (BJCC) ☐ Mechanical Systems (NDSCS) ☐ Mechanical Maintenance Technology (BSC)		



SkillsUSA is a local, state, and national co-curricular association serving high school, college and middle school students who are preparing for careers in trade, technical and skilled service occupations, including health occupations. SkillsUSA empowers its members to become world-class workers, leaders and responsible American citizens the SkillsUSA Framework of personal, workplace and technical skills. Ask about your SkillsUSA Advisor to learn more.



Pathway	OCCUPATIONS RELATING TO THIS CAREER CLUSTER
Audio and Video Technology and Film	Audio Systems Technician • Audio-Video Designer and Engineer • Technical Computer Support • Videographer • Special Effects and Animation Designer Technician
Journalism and Broadcasting	Control Room Technician • Design Director • Broadcast Technician • Editor • Producer • Station Manager • Audio-Video Operator
Performing Arts	Actor/Actress • Lighting Designer • Scenic Designer • Musician • Composer • Makeup Artist • Playwright • Digital, Video and State Production Manager
Printing Technology	Desktop Publishing Specialist • Computer Typography • Pre-production Technician • Plate Maker • Graphics Equipment Operator • Web Page Designer • Lithographer
Telecommunications	Network Designer • Telecommunications Technician • Telecommunication Equipment: Cable, Line Repair and Installation • Computer Programmer and Systems Analyst
Visual Arts	Fashion Designer • Commercial Artist • Commercial Photographer: Digital, Still, Video, Film • Illustrator • Textile Designer • Interior Designer • Computer Animator



Is this Pathway for you?

- Do ideas inspire you to create?
- Are you passionate to overcome obstacles?
- Do you find multiple ways to express your creativity?
- Do you like to communicate your ideas?
- Do you enjoy drawing, performing or writing stories?
- Do you seek opportunities to learn about and be engaged in history or culture?
- Does the idea of working in or being a part of a community that creates excite you?
- Do you enjoy exploring new technologies?
- Are you able to communicate your ideas to diverse audiences?

Arts, Entertainment, & Design	
Visual Arts	
Course Name	Cr
Digital Photography 1	.5
Digital Photography 2	.5
Video Communication	.5
Communication Technology	.5
Graphic Design & Communication	.5
Visual Production & Broadcasting	.5 - 1
Cooperative Work Experience	.5 - 4
Students must earn at least 2 credits in a CTE pathway and 2 additional CTE credits to qualify for the CTE Scholarship	

Other Electives to Consider for Arts, Entertainment, & Design Pathway Preparation	
CTE Electives	
Basics of Business, Exploring Business Software Marketing, Sports & Entertainment Marketing Management and Entrepreneurship Housing & Interior Design, Construction Technology Web Design 1 & 2, Yearbook 1 & 2 IT Essentials 1 & 2, Cisco 1, Intro to Coding, Python	
Academic Electives	
Performing Arts, Theatre Arts Visual Arts: Drawing, Painting, Design, and Clay Sculpture Geometry, Informal Geometry Music: Band, Choir, Orchestra, Music Composition Communications, Creative Writing, Journalism 1 & 2 Exploratory Mas Media/Communication Psychology 1 & 2 Sociology, Humanities, Philosophy	



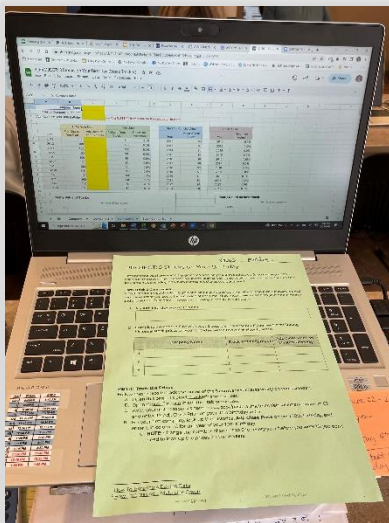
North Dakota Arts, Entertainment, & Design Related Postsecondary Programs

Pathway	Certificate or Associate's Degree	Bachelor's Degree	Master's Degree or More
Audio and Video Technology and Film	☐ Digital Audio Production (BSC) ☐ Web Page Development and Design (BSC, NDSCS)	☐ Multimedia Studies (MiSU) ☐ New Media & Web Design (NDSU)	☐ Library/Information Technology (VCSU)
Journalism and Broadcasting	☐ English transfer (BSC, DCB, TMCC) ☐ Mass Communications (BSC) ☐ Speech Communication transfer (BSC)	☐ Broadcasting (MiSU) ☐ Communication (DSU, MaSU, MiSU, UJ, UND, VCSU) ☐ English (DSU, MaSU, MiSU, NDSU, UJ,UM,UND,VCSU) ☐ English Education (DSU, MaSU, MiSU, NDSU, UM,VCSU) ☐ Journalism/Professional Writing (NDSU) ☐ Mass Communications (UM)	☐ Communication (NDSU) ☐ English (NDSU) ☐ Mass Communications (NDSU) ☐ Speech Communication (NDSU)
Performing Arts	☐ Music transfer (BSC, NDSCS, TMCC, WSC) ☐ Theatre Arts - Performance (BSC) ☐ Theatre Arts – Technical Theatre (BSC)	☐ Music (DSU, MiSU, NDSU, UJ, UM, UND, VCSU) ☐ Music Education (DSU, MiSU, UM, UND, VCSU) ☐ Music Performance (UM, UND) ☐ Musical Theatre (UND) ☐ Theatre Arts (DSU, MiSU, NDSU, UND) ☐ Theatre Education (MiSU)	☐ Music (NDSU, UND) ☐ Theatre Arts (NDSU)
Printing Technology		☐ Print Communications Concentration (MiSU)	
Telecommunications	☐ Electronics Technology (BSC) ☐ Electronics/Telecommunications Technology (BSC)	☐ Communication (DSU, MaSU, MiSU, UJ, UND, VCSU) ☐ Strategic Communication (NDSU)	
Visual Arts	☐ Art transfer (DCB, TMCC) ☐ Fine Art (CCCC) ☐ Graphic Arts/Design (CCCC, RC, UTTC) ☐ Graphic Design & Communications (BSC) ☐ Photography (DCB) ☐ Visual Art transfer (BSC)	☐ Apparel, Retail Merchandising, and Design (NDSU) ☐ Art/Art Studies (DSU, MiSU, NDSU, UJ, VCSU) ☐ Arts Administration (MiSU) ☐ Art Education (DSU, MiSU, NDSU, VCSU) ☐ Art Entrepreneurship (DSU) ☐ Fine Arts (MiSU) ☐ Graphic Design (RC) ☐ Graphic Design & New Art Media (UND) ☐ Graphic Design Technology (UND) ☐ Interior Design (NDSU) ☐ Visual Arts (UND)	☐ Visual Arts (UND)

The **Mission of Trollwood** is simple “to inspire those we serve through the arts to realize their full potential and be a positive influence in the global community.” Trollwood’s youth arts programs include a wide array of arts centered classes and performing opportunities. Trollwood’s youth programs includes 12 annual arts education, youth leadership and performance programs. Explore <http://trollwood.org/> to learn more.



Pathway	OCCUPATIONS RELATING TO THIS CAREER CLUSTER
Administrative Support	Administrative Assistant • Office Manager • Customer Service Assistant • Desktop Publisher • Data Entry Specialist • Receptionist • Medical Transcriptionist • Legal Secretary
Business Information Management	Information Systems Manager • Accounting Clerk or Supervisor • Adjuster • Chief Technology Officer • Budget Analyst • Auditor • Business Consultant
General Management	General Manager • Business & Development Manager • Risk Manager • Public Relations Manager • Chief Executive Officer • Entrepreneur
Human Resources Management	Human Resource Manager • Industrial Relations Director • Compensation & Benefits Manager • Corporate Trainer • Personnel Recruiter • Public Relations Manager
Operations Management	Training & Development Manager • Sales Representative or Manager • Budget Analyst • Research & Development Manager • E-Commerce Analyst



Business Education – Coordinated Plan of Study					
Business Management & Administration Career Cluster				Finance Career Cluster	
Administrative Support		General Management		Accounting	
Course Name	Cr	Course Name	Cr	Course Name	Cr
Exploring Business Software	.5	Exploring Business Software	.5	Exploring Business Software	.5
Intro to Computer Usage	.5	Basics of Business	.5	Basics of Business	.5
Accounting 1	1	Accounting 1	1	Accounting 1	1
Accounting 2	1	Accounting 2	1	Accounting 2	1
Personal Finance	.5	Personal Finance	.5	Personal Finance	.5
Business & Personal Law	.5	Business & Personal Law	.5	Business & Personal Law	.5
Skills for Success in School	.5	Skills for Success in School	.5	Skills for Success in School	.5
Web Design 1	.5				
Web Design 2	.5				
Yearbook 1: Desktop	.5				
Yearbook 2: Coop.	1				
Cooperative Work Experience					1 - 2
Students must earn at least 2 credits in a CTE pathway and 2 additional CTE credits to qualify for the CTE Scholarship					

Is this Pathway for you?

- Are you someone who likes to work with data to solve problems?
- Do you like to interact with all kinds of people?
- Do you like to come up with new ideas?
- Do you like to follow directions to complete a task?
- Do you consider yourself a leader who could be part of a team?
- Are you interested in technology and its ongoing innovation?
- Have you ever dreamed of owning your own business?
- Do you enjoy using math to solve problems?

Other Electives to Consider for Business Education Pathway Preparation

CTE Electives

IT Essentials 1 & 2, Intro to Coding & Gaming
Culinary Arts, Exploring Foods, Restaurant Skills
Entertainment and Sports Marketing, Marketing, Store Manager, Management/Entrepreneurship
Digital Photography 1 & 2

Academic Electives

Mathematics in Action, AP Math
Communications; Creative Writing, Yearbook
Foreign Language
Microeconomics, Publications/Media
Psychology 1 & 2, Sociology
Public Speaking, Debate



North Dakota Financial Services Related Postsecondary Programs

Pathway	Certificate or Associate's Degree	Bachelor's Degree	Master's Degree or More
Administrative Support	☐ Administrative Assistant (BSC, DCB, LRSC, NHSC) ☐ Bookkeeping (DCB) ☐ Business/Office Technology (CCCC, NDSCS, SBC, UTTC) ☐ Computer Applications (CCCC) ☐ Computer Support Specialist (BSC, TMCC) ☐ Office Administration (BJCC, DSU) ☐ Reception Services (DCB)		
Business Information Management	☐ Business Management (MaSU, NDSCS, RC, UTTC, WSC) ☐ Computer Information Systems (BSC, DCB, NDSCS) ☐ Information Processing Specialist (BSC) ☐ Information Tech/Management (DCB, LRSC, NDSCS, NHSC, RC, SBC, WSC) ☐ Management Information Systems (NDSCS) ☐ Small Business Management (DCB)	☐ Applied Business Information Technology (MiSU) ☐ Business Communication (UM) ☐ Business Process Integration Management (VCSU) ☐ Computer Information Systems (MaSU, UM, UND) ☐ Information Technology Management (RC, UM) ☐ Management Communication (NDSU) ☐ Management Information Systems (MiSU, NDSU)	☐ Information Systems (MiSU)
General Management	☐ Business Administration transfer (BSC, CCCC, DCB, LRSC, NDSCS, NHSC, SBC, TBC, TMCC) ☐ Business Education transfer (BSC, DCB) ☐ Computer Support Specialist (BSC, TMCC) ☐ Entrepreneurship (BSC, CCCC, NDSCS, SBC, TMCC) ☐ Management (BSC)	☐ Applied Management (MiSU) ☐ Business Administration (DSU, MaSU, NDSU, SBC, TBC, UTTC, UJ, UM, VCSU) ☐ Business Education (DSU, MiSU, UM, VCSU) ☐ Entrepreneurship (UND) ☐ International Business (MiSU) ☐ Management (MiSU, NDSU, RC, UND, VCSU) ☐ Public Administration (UND)	☐ Business (UM) ☐ Business Administration (NDSU, UM, UND) ☐ Management (MiSU) ☐ Project Management (UM) ☐ Public Administration (UM, UND)
Human Resources Management	☐ HR and Organizational Leadership (RC)	☐ Human Resource Management (DSU, UND, VCSU) ☐ Human Resources and Organizational Leadership (RC)	
Operations Management		☐ Business Economics (UND) ☐ Business Management (RC, UM) ☐ Business Systems Analysis (RC) ☐ Management Communication (NDSU) ☐ Operations & Supply Chain Management (UND)	



Future Business Leaders of America is a co-curricular student organization for students enrolled in Business Education courses. FBLA inspires and prepares students to become community-minded business leaders in a global society through relevant career preparation and leadership experiences. FBLA focuses on leadership development, academic competitions, high school programs, membership benefits, community service, and awards. Contact your high school FBLA Advisor to learn what it takes to become a member.

Pathway	OCCUPATIONS RELATING TO THIS CAREER CLUSTER
Biotechnology Research & Development	Research Scientist/Assistant • Microbiologist • Biostatistician • Cell Biologist • Biomedical Chemist • Geneticist • Genetics Lab Assistant • Quality Assurance Technician
Diagnostic Services	Clinical Lab Technician • Phlebotomist • Geneticist • Nutritionist • Magnetic Resonance (MR) Technologist • Radiologist • Pathologist • Exercise Physiologist
Health Informatics	Health Information Coder • Admitting Clerk • Transcriptionist • Medical Librarian • Public Health Educator • Ethicist • Medical Assistant • Epidemiologist
Support Services	Dietary Aide • Hospital Maintenance Engineer • Environmental Services Manager • Industrial Hygienist • Biomedical Engineer • Transport Technician
Therapeutic Services	Dental Assistant/Hygienist • Occupational Therapist • EMT/Paramedic • Physician • Nurse • Veterinarian • Social Worker • Massage Therapist • Physical Therapist • Pharmacist



Is this Pathway for you?

- Do you get satisfaction from helping people, animals, and/or the environment?
- Do you enjoy dealing with a problem that isn't easily solved or doesn't have the correct answer?
- Are you comfortable with situations that are unpredictable and rapidly changing?
- Are you interested in math and science?
- Do you like listening and working with others who have differing viewpoints?
- Do you enjoy puzzles, exploring and solving problems?
- Can you respond quickly and calmly in unexpected situations?
- Do you like to volunteer and do service work that focuses on helping other people or the environment?

Health Science – Coordinated Plan of Study	
Therapeutic Services	
Course Name	Cr
Certified Nurse Assistant (certification optional)	.5
Emergency Medical Responder	.5
Emergency Medical Technician	2
Health Science I	1
Health Science II	1
Medical Terminology - Online & Dual Credit Option	.5
Health Education Supervised Occupational Experience	.5 – 4
Fire Fighter I	2
Fire Fighter II	2
Students must earn at least 2 credits in a CTE pathway and 2 additional CTE credits to qualify for the CTE Scholarship	
Other Electives to Consider for Health Science Pathway Preparation	
CTE Electives Exploring Business Software Child Development, Intro to Teaching, Child Care Careers Exploring Foods, Food Revolution Intro to Engineering Design, Principles of Engineering Marketing Management/Entrepreneurship	
Academic Electives Communications, College Learning Lab Foreign Language Junior Educator of Tomorrow (JET) AP Statistics, Pre-Calculus, AP Calculus, College Learning Lab Anatomy/Physiology, Athletic Injuries AP Biology, AP Chemistry, AP Physics I Psychology I, II, AP Psychology Sociology	



North Dakota Health Science Related Postsecondary Programs

Pathway	Certificate or Associate's Degree	Bachelor's Degree	Master's Degree or More
Biotechnology Research & Development	☐ Biotechnology transfer (NDSCS) ☐ Pharmacy Technician (NDSCS, RC, TMCC)	☐ Bioinformatics (MiSU) ☐ Biotechnology (NDSU) ☐ Pharmaceutical Sciences (NDSU)	☐ Biomedical Sciences (UND) ☐ Genomics and Bioinformatics (NDSU) ☐ Pharmaceutical Sciences/Pharmacy (NDSU)
Diagnostic Services	☐ Clinical Laboratory Science transfer (NDSCS) ☐ Dialysis Technician (NDSCS) ☐ EMT – Paramedic Technician (BSC, DCB, NDSCS) ☐ Medical Laboratory Technician (BSC, TMCC) ☐ Medical Laboratory transfer (BSC) ☐ Phlebotomy Technician (BSC, TMCC)	☐ Medical Lab Science (MaSU, MiSU, NDSU, UJ, UM, UND, VCSU) ☐ Communication Sciences and Disorders (UM, UND) ☐ Radiologic Technology (MiSU, NDSU, UJ, UM)	☐ Medical Lab Science (UND)
Health Informatics	☐ Community Health Worker (SBC) ☐ Health Information Technician/Management (DCB, NDSCS) ☐ Medical Administrative Asst. (BJCC, DCB, RC) ☐ Medical Coding/Billing (DCB, NDSCS, RC, UTTC, WSC)	☐ Community Nutrition (UND) ☐ Forensic Science (UND) ☐ Healthcare Management (RC) ☐ Health Administration (UM) ☐ Health Communication (NDSU)	☐ Health Care Administration (UM) ☐ Nurse Administrator (UM) ☐ Public Health (NDSU, UND)
Support Services	☐ Caregiver Services (DCB) ☐ Environmental Public Health (TMCC) ☐ Fitness Trainer Technician (LRSC) ☐ Social Work transfer (BSC, CCCC, NDSCS, TMCC, WSC)	☐ Corporate Fitness/Wellness (MaSU, MiSU) ☐ Exercise Science (DSU, NDSU, UJ, UM) ☐ Kinesiology (UND) ☐ Social Work (MiSU, UM, UND)	☐ Clinical Exercise Physiology (UM) ☐ Exercise Science and Nutrition (NDSU) ☐ Exercise Physiology/Kinesiology (UM, UND) ☐ Social Work (UND)
Therapeutic Services	☐ Addictions Studies Transfer (NHSC) ☐ Dental Assisting/Hygiene (NDSCS) ☐ Health/Medical Assistant (CCCC, DCB) ☐ Massage Therapy (JSHDF, JSHDGF, TSPA, WSC) ☐ Mental Health/Addictions Technician (WSC) ☐ Nursing transfer (BSC, CCCC, DCB, LRSC, NDSCS, SBC, WSC) ☐ Occupational Therapy Assistant (NDSCS) ☐ Practical Nursing (BSC, BJCC, DCB, DSU, NDSCS, NHSC, SBC, TMCC, UTTC, WSC) ☐ Pre-Professional transfer (BSC, DCB, MaSU, NDSCS, TMCC, WSC) ☐ Surgical Technology (BSC)	☐ Addiction Studies (MiSU) ☐ Athletic Training (MiSU, UM, UND) ☐ Dietetics (NDSU, UND) ☐ Music Therapy (UND) ☐ Nursing (DSU, MaSU, MiSU, NDSU, RC, UJ, UM, UND) ☐ Pre-Professional Programs (MaSU, MiSU, UM) ☐ Rehabilitation and Human Services (UND) ☐ Respiratory Care/Therapy (NDSU, UM)	☐ Advanced Nursing Practice (NDSU) ☐ Advanced Athletic Training (NDSU) ☐ Dietetics (NDSU) ☐ Health, Nutrition and Exercise Science (NDSU) ☐ Gerontology (NDSU) ☐ Nursing (NDSU, UM, UND) ☐ Nutrition (UND) ☐ Occupational Therapy (UM, UND) ☐ Physical Therapy (UJ, UM, UND) ☐ Physician Assistant (UND) ☐ Psychological Clinical Science (NDSU) ☐ Respiratory Therapy (UM)



HOSA is an international student organization recognized by the Health Science Education (HSE) Division of ACTE. HOSA's goal is to encourage all health science instructors and students to join and be actively involved in leadership and demonstrate these skills through local, state and national competitions. HOSA provides a unique program of leadership development, motivation, and recognition exclusively for secondary, postsecondary, adult, and collegiate students enrolled in health science education and biomedical science programs or have interests in pursuing careers in health professions. Contact your HOSA Advisor to learn more. Currently offered at Fargo North.



Education, Hospitality, Events, & Tourism

Family & Consumer Sciences



Pathway	OCCUPATIONS RELATING TO THIS CAREER CLUSTER
Consumer Services	Customer Service Representative • Financial Advisor • Market Researcher • Consumer Credit Counselor • Certified Financial Planner • Sales Consultant
Counseling & Mental Health Services	Career Counselor • Mental Health Counselor • Psychologist • Vocational Rehabilitation Counselor • School Counselor • Sociologist
Early Childhood Development & Services	Child Care Worker • Nanny • Preschool Teacher/Teacher Assistant • Child Care Center Director • Parent Educator
Family & Consumer Services	Human Services Worker • Religious Leader • Volunteer Coordinator • Social Worker • Day Care Worker • Emergency Relief Worker • Social Services Worker
Personal Care Services	Cosmetologist • Personal Trainer • Personal and Home Care Aide • Funeral Director • Massage Therapist • Exercise Physiologist • Nail Technician

Family and Consumer Science – Coordinated Plan of Study									
Human Services Career Cluster				Hospitality & Tourism Career Cluster		Arts, AV Technology & Communications Career Cluster		Education & Training Career Cluster	
Family and Community Services		Early Childhood Development		Restaurant/Food Service		Visual Arts		Teaching/Training	
Course Name	Cr	Course Name	Cr	Course Name	Cr	Course Name	Cr	Course Name	Cr
Exploring Food	.5	Child Development	.5	Exploring Foods	.5	Sewing and Fashion	.5	Child Development	.5
Child Development	.5	Relationships	.5	Food Revolution	.5	Textile Arts	.5	Childcare Careers	1
Food Revolution	.5	Living on your own	.5	Cultures & Cuisine	.5	Housing & Interior Design	.5	Intro to Education	.5
Relationships	.5	Childcare Careers	1	Culinary Arts	.5	Living on your own	.5	Teaching Field Experience	.5
Living on your own	.5	Child Careers Coop.	.5	Living on your own	.5			Educating the Exceptional Student	.5
			.5	Restaurant Skills, Restaurant Coop.	1 .5			Peer to Peer 1 and Peer to Peer 2	.5 .5
Students must earn at least 2 credits in a CTE pathway and 2 additional CTE credits to qualify for the CTE Scholarship									

Is this Pathway for you?

- Are you open-minded when helping others solve problems?
- Are you self-motivated?
- Do you enjoy working as a team?
- Are you compassionate and empathetic?
- Do you have a desire for a career in public service?
- Do you have an interest in human development and behavior?
- Do you consider yourself a leader who could be a part of a team?
- Are you curious to design, create, and/or work with your hands?

Other Electives to Consider for Family & Consumer Science Pathway Preparation

CTE Electives

Accounting 1 & 2
Basics of Business, Exploring Business Software
Business & Personal Finance, Marketing
Health Science I, CNA

Academic Electives

Art courses
Mathematics in Action
Communications, Creative Writing, Public Speaking
Foreign Language, Junior Educator of Tomorrow (JET)
Microeconomics, Publications/Media
Psychology 1 & 2, AP Psychology, Sociology



North Dakota Education, Human Services Related Postsecondary Programs

Pathway	Certificate or Associate's Degree	Bachelor's Degree	Master's Degree or More
Consumer Services	☐ Business Administration transfer (BSC, CCCC, DCB, NDSCS, NHSC, SBC, TBC, TMCC) ☐ Management (BSC, DCB, RC, SBC, UTTC, WSC)	☐ Business Administration (NDSU, UJ, SBC, TBC, UTTC, VCSU) ☐ Management (MiSU, NDSU, RC, UTTC, UM, UND, VCSU)	☐ Business Administration (NDSU)
Counseling & Mental Health Services	☐ Addiction Studies (NHSC) ☐ Mental Health/Addictions Technician (WSC) ☐ Psychology transfer (BSC, DCB, NDSCS, TMCC, WSC)	☐ Addiction Studies (MiSU) ☐ Applied Psychology (MaSU) ☐ Psychology (MiSU, NDSU, UJ, UM, UND, VCSU)	☐ Clinical Counseling (UJ) ☐ Counseling (NDSU, UM, UND) ☐ Counseling Education and Supervision (NDSU) ☐ Counseling Psychology & Community Services (UND) ☐ Couple and Family Therapy (NDSU) ☐ Psychology (NDSU, UND)
Early Childhood Development & Services	☐ Child Development (DCB, NHSC) ☐ Early Childhood (MaSU) ☐ Early Childhood Education transfer (BSC, CCCC, DCB, LRSC, NDSCS, NHSC, SBC, RC)	☐ Early Childhood (MaSU) ☐ Early Childhood Education (MaSU, MiSU, RC, SBC, UM, UND) ☐ Human Development & Family Science (NDSU)	☐ Early Childhood Education (UND) ☐ Developmental Science (NDSU) ☐ Human Development & Family Science (NDSU)
Family & Community Services	☐ Biblical Studies (TBC) ☐ Caregiver Services (DCB) ☐ Community Health Worker (SBC) ☐ Human Services/Eligibility Worker (BSC, NHSC, RC, SBC) ☐ Religion transfer (BSC, WSC) ☐ Social Work transfer (BSC, CCCC, DSU, NDSCS, TMCC, WSC)	☐ Catholic Studies (UM) ☐ Human Development & Family Science (NDSU) ☐ Human Services (RC, VCSU) ☐ Pastoral/Youth/Children's Ministry (TBC, UM) ☐ Rehabilitation and Human Services (UND) ☐ Religious/Theology/Biblical Studies (UJ, UM, UND, TBC) ☐ Social Work (MiSU, UM, UND)	☐ Gerontology (NDSU) ☐ Human Development & Family Science (NDSU) ☐ Missional Leadership (TBC) ☐ Public Health (NDSU, UND) ☐ Social Work (UND)
Personal Care Services	☐ Fitness Trainer Technician (LRSC) ☐ Barbering and Cosmetology (MBC) ☐ Cosmetology (HAHD, JSHDF, JSHDGF, JSHDW, JZT, THA, TSPA) ☐ Esthetician/Skin Care (JSHDGF, JSHDW, THA, TSPA) ☐ Massage Therapy (JSHDGF, JSHDW, TSPA, WSC) ☐ Nail Technology (JSHDW, JZT, THA, TSPA)	☐ Athletic/Fitness Training (MiSU, UM, UND) ☐ Exercise Science (DSU, NDSU, UJ, UM) ☐ Sport Management (NDSU)	☐ Advanced Athletic Training (NDSU) ☐ Clinical Exercise Physiology (UM) ☐ Exercise Science and Nutrition (NDSU)



FCCLA is a national Career and Technical Student Organization that provides personal growth, leadership development, and career preparation opportunities for students in Family and Consumer Sciences education. **Our Mission** is to promote personal growth and leadership development through Family and Consumer Sciences education. Focusing on the multiple roles of family member, wage earner and community leader, members develop skills for life through: character development, creative and critical thinking, interpersonal communication, practical knowledge, and career preparation. Ask who your FCCLA advisor is to learn more about becoming a member.

Pathway	OCCUPATIONS RELATING TO THIS CAREER CLUSTER
Information Support & Services	Database Administrator • Account Manager • Help Desk Specialist • Information Systems Architect • Systems Analyst • Instructional Designer • Testing Engineer
Network Systems	User Support Specialist • Network Administrator • Network Engineer • Information Technology Engineer • Network Security Analyst • Telecommunications Network Technician
Programming & Software Development	Computer Engineer • Software Applications Specialist • Game Developer • Software Applications Tester • Project Lead • Software Design Engineer
Web & Digital Communications	Multimedia Specialist • Web Designer • Web Site Developer • Animator • Blog Developer • Streaming Media Specialist



Information Technology - Coordinated Plan of Study			
Information Technology Career Cluster			
Network Systems		Computer Programming	
Course Name	Cr	Course Name	Cr
IT Essentials 1	.5	Intro to Programming	.5
IT Essentials 2	.5	Programming with Python	.5
Intro to Networking	.5	Fundamentals of Java Programming	.5
CISCO I	.5	Mobile App Development & Cyber Security	.5
		AP Computer Science - A	.5
Cooperative Work Experience			1-4
Students must earn at least 2 credits in a CTE pathway and 2 additional CTE credits to qualify for the CTE Scholarship			

Is this Pathway for you?

- Do you enjoy working with computers?
- Are you curious to learn reasoning and logic to solve complex problems?
- Are you comfortable with situations that are unpredictable and rapidly changing?
- Are you interested in how procedures make machines work?
- Do you like to read technical materials and diagrams and solve technical problems?
- Are you patient when problem-solving to find a solution?
- Do you enjoy working as a team or independently?
- Do you like playing video games and figuring out how they work?
- Can you concentrate for long periods without being distracted?

Other Electives to Consider for Information Technology Pathway Preparation

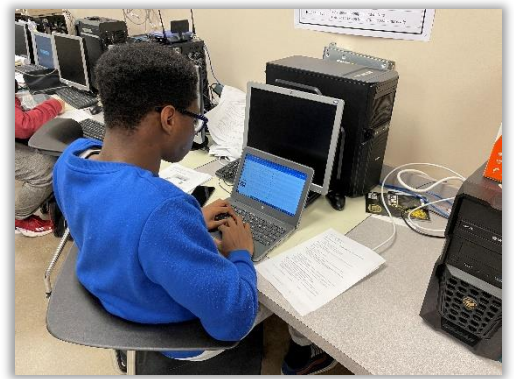
CTE Electives

Accounting 1 & 2
Aviation I, Aviation II, UAV
Business & Personal Finance, Business Law
Exploring Business Software, Web Design 1 & 2
Marketing, Management/Entrepreneurship
Intro to Engineering Design, Principles of Engineering,
Engineering Capstone, Robotics I & II

Academic Electives

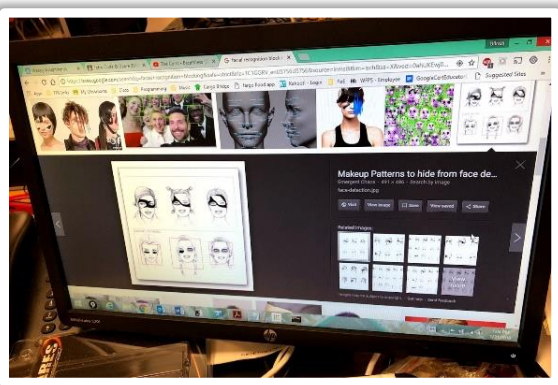
Communications
College Algebra, AP Calculus, AP Statistics
Physics
Publications/Broadcast
STEM

Cyber Security & Coding



Connecting the world!

North Dakota Digital Technology Related Postsecondary Programs			
Pathway	Associate's Degree or Less	Bachelor's Degree	Master's Degree or More
Information Support & Services	☐ Computer Applications (CCCC) ☐ Computer Information Systems (BSC, DCB) ☐ Computer Support Specialist (BSC, TMCC) ☐ Computer Technology/Information Technology (DCB) ☐ Geographic Information Systems Technician (BSC) ☐ Information Systems Administrator (NDSCS) ☐ Information Processing Specialist (BSC) ☐ Information Management (NHSC, RC) ☐ Information Technology (LRSC, NDSCS, RC, SBC, WSC) ☐ IT Forensics (NDSCS) ☐ Management Information Systems transfer (NDSCS)	☐ Applied Business Information Technology (MiSU) ☐ Computer Technology Management (DSU) ☐ Information Security (RC) ☐ Management Information Science (UJ) ☐ Information Technology (UJ) ☐ Information Technology Management (RC, UM) ☐ Technology Education (DSU, VCSU)	☐ Information Systems (MiSU) ☐ Library/Information Technology (VCSU) ☐ Technology (UND)
Network Systems	☐ Information Management (NHSC, RC) ☐ Information Technology (LRSC, NDSCS, RC, SBC, WSC)	☐ Computer Information Systems (MaSU, UM, VCSU) ☐ Information Systems (UND) ☐ Management Information Systems (NDSU)	☐ Computer Science (NDSU, UND) ☐ Electrical and Computer Engineering (NDSU)
Programming & Software Development	☐ Computer Science transfer (BSC, NDSCS) ☐ Mobile Application Developer (NDSCS) ☐ Software Application Development (RC)	☐ Computer Engineering (NDSU) ☐ Computer Science (DSU, MiSU, NDSU, RC, UJ, UM, UND) ☐ Electrical and Computer Engineering (NDSU) ☐ Software Engineering (VCSU)	☐ Electrical and Computer Engineering (NDSU) ☐ Software Engineering (NDSU)
Web & Digital Communications	☐ Computer Technology/Webmaster and Web Design (DCB) ☐ Web Design (NDSCS) ☐ Web Developer (NDSCS) ☐ Web Page Development and Design (BSC) ☐ Web Programming (RC)	☐ New Media and Web Design (NDSU)	



Cyber Patriot
Tech Wars
E-sports



Pathway	OCCUPATIONS RELATING TO THIS CAREER CLUSTER
Health, Safety & Environmental Assurance	Environmental Engineer • Health and Safety Specialist • Safety Team Leader • Environmental Specialist • Safety Coordinator • Environmental Field Technician
Logistics & Inventory Control	Dispatcher • Freight/Stock/Material Mover • Industrial Truck & Tractor Operator • Materials Handler • Logistical Engineer • Quality Control Technician
Maintenance, Installation & Repair	Computer Repair Technician • Boilermaker • Communication Systems Installer • Laser Systems Technician • Industrial Machinery Mechanic • Instrument Calibration Technician
Manufacturing Production Process Development	Industrial Engineer • Manufacturing Technician • Purchasing Agent • Precision Inspector, Tester and Grader • Production Manager • Electronics Engineer
Production	Welder • Calibration Technician • Precision Layout Worker • Assembler • Tool & Die Maker • Sheet Metal Worker • Micro and Nano Fabrication Technicians
Quality Assurance	Process Control Technician • Inspector • Quality Control Technician • Calibration Technician • Lab Technician • Statistical Process Control (SPC) Coordinator



Trade & Industry – Coordinated Plan of Study	
Production	
Course Name	Cr
Manufacturing I, 2 or 3 (South High)	1 to 3
Welding I (NDSCS-Fargo)	1
Welding II (NDSCS-Fargo)	1
Manufacturing Cooperative Work Experience	.5 - 4
Technology & Engineering	
Manufacturing Production Process Development	
Construction Technology	.5
Intro to Engineering	1
Principles of Engineering	1
Robotics	.5
Robotics II	.5

Is this Pathway for you?

- Are you curious about how things are made or how they work?
- Do you like to interact with all kinds of people?
- Do you enjoy creating, inventing, or imaging new and different ways to do things?
- Do you consider yourself a leader who could be part of a team?
- Are you curious to work in a laboratory?
- Are you interested in technology and its ongoing innovation?
- Have you ever dreamed of owning your own business?
- Do you like to follow directions and use precise detail to complete a task?

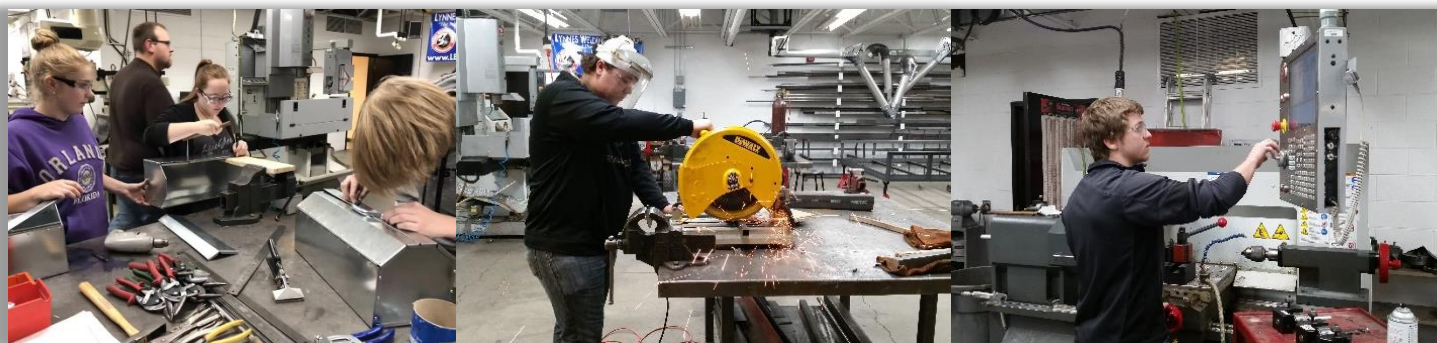
Other Electives to Consider for Manufacturing Pathway Preparation

CTE Electives

Civil Engineering & Architecture
Computer Applications, Business and Personal Finance
Fundamentals of Business
Marketing
Living on Your Own
Woods 1 & Woods 2

Academic Electives

Arts
Consumer Math; Geometry
Environmental Science, Earth Science
Public Speaking



North Dakota Advanced Manufacturing Related Postsecondary Programs

Pathway	Associate's Degree or Less	Bachelor's Degree	Master's Degree or More
Health, Safety & Environmental Assurance	☐ Emergency Management transfer (NDSCS) ☐ Environmental Public Health (TMCC) ☐ Environmental Technology/Science transfer (NHSC, SBC, TMCC, UTTC, WSC)	☐ Emergency Management (NDSU) ☐ Environmental Design (NDSU) ☐ Environmental Science (DSU, NHSC, SBC) ☐ Health Communication (NDSU)	☐ Emergency Management (NDSU) ☐ Environmental and Conservation Sciences (NDSU, SBC) ☐ Environmental Engineering (NDSU, UND)
Logistics & Inventory Control	☐ Information Technology (DCB) ☐ Information Processing Specialist (BSC) ☐ Management Information Systems (NDSCS)	☐ Business Process Integration Management (VCSU) ☐ Computer Technology Management (DSU) ☐ Energy Economics and Finance (MiSU) ☐ Management Information Systems (MiSU, NDSU) ☐ Operations and Supply Chain Management (UND)	☐ Transportation and Logistics (NDSU)
Maintenance, Installation & Repair	☐ Electrical Lineworker (BSC) ☐ Electrical Power Technology (BSC) ☐ Electrical Transmission Systems Technology (BSC) ☐ Electronics Technology (BSC) ☐ Electronics and Telecommunications Technology (BSC) ☐ Mechanical Maintenance Technology (BSC) ☐ Welding Technology (BSC, BJCC, LW, NDSCS, NHSC, SBC, TMCC, UTTC, WSC) ☐ Wind Energy Technician (LRSC)	☐ Industrial Technology (UND)	
Manufacturing Process Production Development	☐ Engineering Technology (BSC) ☐ Power Plant Technology (BSC) ☐ Process Plant Technology (BSC, TMCC) ☐ Energy Services & Renewable Technician (BSC)	☐ Engineering Science (UJ, UM) ☐ Industrial Engineering and Management (NDSU) ☐ Manufacturing Engineering (NDSU)	☐ Industrial Engineering and Management (NDSU) ☐ Manufacturing Engineering (NDSU)
Production	☐ Heating, Ventilation, and Air Conditioning (BSC, CCCC, NDSCS, TMCC) ☐ Precision Machining Technology (NDSCS) ☐ Production Operations/Refinery Training (NHSC) ☐ Robotics, Automation and Mechatronics Technology (NDSCS) ☐ Welding Technology (BSC, BJCC, LW, NDSCS, NHSC, SBC, TMCC, UTTC, WSC)	☐ Energy Management (BSC)	☐ Materials and Nanotechnology (NDSU)
Quality Assurance	☐ Instrumentation and Control Technology (BSC)	☐ Industrial Engineering and Management (NDSU)	☐ Industrial Engineering and Management (NDSU)



SkillsUSA is a local, state, and national co-curricular association serving high school, college and middle school students who are preparing for careers in trade, technical and skilled service occupations, including health occupations. SkillsUSA empowers its members to become world-class workers, leaders and responsible American citizens the SkillsUSA Framework of personal, workplace and technical skills. Contact your SkillsUSA Advisor to learn more.

Pathway	OCCUPATIONS RELATING TO THIS CAREER CLUSTER
Marketing Communications	Account Executive • Advertising Manager • Creative Director • Media Buyer • Marketing Associate • Public Information Director • Interactive Media Specialist
Marketing Management	Database Manager • Customer Service Representative • Brand Manager • Director of Market Development • Marketing Services Manager • Planning Analyst
Marketing Research	Research Associate • Research Specialist • Market Research Manager • Strategic Planner • Research Analyst • Forecasting Manager • Marketing Strategist
Merchandising	Merchandise Buyer • Operations Manager • Retail Marketing Coordinator • Receiving Clerk • Visual Merchandise Manager • Department Manager • Sales Associate
Professional Selling	Account Executive • Broker • Manufacturer's Representative • Field Representative • Sales Executive • Solutions Advisory • Client Relationship Manager



Marketing Education - Coordinated Plan of Study			
Marketing Career Cluster			
Professional Sales/Merchandising		Marketing Management	
Course Name	Cr	Course Name	Cr
Entertainment & Sports Marketing	.5	Marketing	1
Hospitality & Tourism	.5	Management/Entrepreneurship	1
Marketing	1	Social Media Marketing	1
Social Media Marketing (Pilot)	.5	Store Manager	.5-1
Management/Entrepreneurship	1	Cooperative Work Experience	.5-1
Store Manager	.5-1		
Cooperative Work Experience	.5-1		
Students must earn at least 2 credits in a CTE pathway and 2 additional CTE credits to qualify for the CTE Scholarship			

Is this Pathway for you?

- Are you someone who likes to work with data to solve problems?
- Do you like to interact with all kinds of people?
- Do you like to come up with new ideas?
- Do you like to follow directions to complete a task?
- Do you consider yourself a leader who could be part of a team?
- Are you interested in being a team captain, officer, or having a role in an organization?
- Are you interested in technology and its ongoing innovation?
- Have you ever dreamed of owning your own business?

Other Electives to Consider for Marketing Pathway Preparation
CTE Electives Computer Applications, Web Design 1 & 2 Accounting I, II Business & Personal Finance, Business Law Culinary Arts, Cultures & Cuisine, Exploring Foods, Restaurant Skills, Housing and Interior Design
Academic Electives Communications, Journalism 1 & 2 Exploratory Mass Media/Communication Creative Writing, Debate AP Statistics, AP Human Geography Foreign Language AP Macroeconomics, AP Microeconomics Sociology



North Dakota Marketing, Management & Entrepreneurship Related Postsecondary Programs

Pathway	Associate's Degree or Less	Bachelor's Degree	Master's Degree or More
Marketing Communications	☐ Advertising and Marketing (DCB) ☐ Advertising transfer (WSC) ☐ Information & Communications Technology (NDSCS) ☐ Mass Communications (BSC)	☐ Business Communication (UM) ☐ Communication (UND) ☐ Mass Communication (UM) ☐ Public Relations (UM)	
Marketing Management	☐ Advertising & Marketing (DCB) ☐ Business Management (NDSCS, RC, UTTC, WSC) ☐ Information Management (NHSC) ☐ Management (BSC) ☐ Management Entrepreneurship (BSC) ☐ Marketing (LRSC, RC) ☐ Marketing and Management transfer (DCB) ☐ Small Business Management (DCB)	☐ Business Management (RC, UM, VCSU) ☐ Management (MiSU, NDSU, UND) ☐ Management Communication (NDSU) ☐ Marketing (MiSU, NDSU, RC, UM, UND, VCSU) ☐ Sport & Leisure Management (UM)	☐ Management (MiSU)
Marketing Research	☐ Business Systems Analysis (RC)	☐ Business Systems Analysis (RC)	
Merchandising	☐ Art Marketing (UTTC) ☐ Marketing (LRSC, RC)	☐ Apparel, Retail Merchandising, & Design (NDSU) ☐ Operations and Supply Chain Management (UND)	☐ Merchandising (NDSU)
Professional Selling	☐ Entrepreneurship (CCCC, NDSCS, SBC, TMCC)	☐ Art Entrepreneurship (DSU) ☐ Computer Information Systems/ Customer Relationship Management (VCSU) ☐ Entrepreneurship (UND)	



DECA is a co-curricular student organization that connects the Marketing Education classroom curriculum to leadership experiences. DECA's mission is to prepare emerging leaders in marketing, finance, hospitality and management. North Dakota DECA was chartered in 1954 and continues to provide opportunities for its members today. DECA members are encouraged to be involved in local, state and national competitions, community service projects, and leadership. Contact your DECA advisor to learn more about what you can do to get involved.



Marketing education students also can compete in Junior Achievement's Titan Competition where students apply their knowledge of business to compete in an interactive business simulation or the JA Company Program which challenges student entrepreneurial spirit to start, operate, and liquidate their own company brand. Individual and team scholarship awards are available.

Pathway	OCCUPATIONS RELATING TO THIS CAREER CLUSTER
Engineering & Technology	Aerospace Engineer • Architectural Engineer • Automotive Engineer • CAD Technician • Civil Engineer • Computer Programmer • Electrical Engineer • Mapping Technician • Mining Engineer • Metallurgist • Petroleum Engineer • Survey Technician • Biomedical Engineer • Agricultural Technician • Application Engineer
Science & Mathematics	Anthropologist • Astronomer • Chemist • Geneticist • Ecologist • Environmental Scientist • Geologist • Research Technician • Economist • Analytical Chemist • Meteorologist • Nuclear Chemist/Technician • Statistician • Atmospheric Scientist • Zoologist • Astrophysicist • Quality-Control Scientist

STEAM Courses <i>* Indicated 1 credits</i>	Agriculture	The Arts	Aviation	Business
	• Intro to Agriculture • Plant Science I • Plant Science II • World Agriculture	• Visual Arts • Performing Arts • Music • Music Composition • Photography • Yearbook • Theatre Arts Tech *	• Aviation I • Aviation II* • Unmanned Aerial Vehicle • AFJROTC 1, 2, 3, 4	• Web Design 1 & 2 • Yearbook*
	Engineering	Graphic Design	Information Technology	Medical
	• Robotics • PLTW—Intro to Engineering* • PLTW—Principles of Engineering* • Project Lead the Way—Civil Engineering* • Engineering Design Capstone	• Communication Tech • Video Communications • Digital Photography 1 & 2 • Graphic Design • Visual Arts & Broadcasting	• AP Computer Science – Java • Intro to Networking & Cyber • CISCO 1 • IT Essentials 1 & 2 • Fundamentals of Java Programming • Introduction to Coding & Gaming • Mobile App Development & Security • Programming with Python	• CNA Skills • Health Science 1 & 2* • Medical Terminology • Athletic Injuries

Is this Pathway for you?

- Are you curious about how things are made or how they work?
- Do you like to interact with a variety of people?
- Do you enjoy creating, inventing, or imagining new and different ways to do things?
- Do you consider yourself a leader who could be part of a team?
- Are you curious to work in a laboratory?
- Are you interested in technology and its ongoing innovation?
- Have you ever dreamed of owning your own business?
- Do you like to follow directions and use precise detail to complete a task?
- Are you curious how math/science can be applied to build things or solve problems?





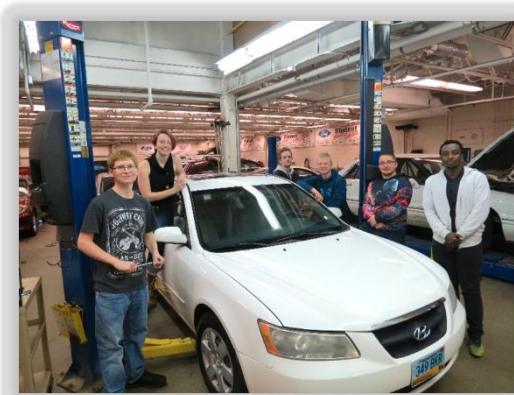
North Dakota Digital Technology, Engineering, & Design Related Postsecondary Programs

Pathway	Certificate or Associate's Degree	Bachelor's Degree	Master's Degree or More
Engineering & Technology	☐ Architectural Drafting & Estimating Technology (NDSCS) ☐ Engineering Technology (BSC) ☐ Land Surveying and Civil Engineering (NDSCS) ☐ Nanoscience Technology (NDSCS) ☐ Nuclear Power Technology (BSC) ☐ Petroleum Engineering Technology (BSC) ☐ Petroleum Production Technology (BSC, NHSC, WSC) ☐ Engineering transfer (BSC, CCCC, DCB, NDSCS, NHSC, SBC, TMCC, WSC) ☐ Robotics, Automation & Mechatronics Technology (NDSCS) ☐ Simulator Maintenance Technology (LRSC) ☐ Technical Studies (BSC, NDSCS)	☐ Agricultural and Biosystems Engineering (NDSU) ☐ Chemical Engineering (UND) ☐ Civil Engineering (NDSU, UND) ☐ Computer Engineering (NDSU) ☐ Construction Engineering (NDSU) ☐ Electrical Engineering (NDSU, UND) ☐ Engineering Science (UM) ☐ Geological Engineering (UND) ☐ Industrial Engineering and Management (NDSU) ☐ Industrial Technology (UND) ☐ Manufacturing Engineering (NDSU) ☐ Mechanical Engineering (NDSU, UJ, UND) ☐ Petroleum Engineering (UND)	☐ Aerospace Sciences (UND) ☐ Agricultural and Biosystems Engineering (NDSU) ☐ Chemical Engineering (UND) ☐ Civil Engineering (NDSU, UND) ☐ Electrical/Computer Engineering (NDSU, UND) ☐ Environmental Engineering (NDSU, UND) ☐ Geological Engineering (UND) ☐ Industrial Engineering & Management (NDSU) ☐ Manufacturing Engineering (NDSU) ☐ Mechanical Engineering (NDSU, UND) ☐ Software Engineering (NDSU) ☐ Sustainable Energy Engineering (UND) ☐ Technology (UND)
	☐ Biology transfer (BSC, DCB, TMCC, WSC) ☐ Biotechnology transfer (NDSCS) ☐ Chemistry transfer (BSC, DCB, NDSCS, TMCC, WSC) ☐ Environmental Science Transfer (CCCC, NHSC, TMCC, WSC) ☐ Environmental Technology (DCB) ☐ Mathematics transfer (BSC, DCB, NDSCS, NHSC, TMCC, WSC) ☐ Natural Science transfer (NDSCS, TMCC) ☐ Pharmacy transfer (WSC) ☐ Physical Science transfer (NDSCS, WSC) ☐ Physics transfer (BSC, WSC) ☐ Science transfer (CCCC, NHSC) ☐ Tribal Environmental Science (UTTC)	☐ Atmospheric Sciences (UND) ☐ Biochemistry and Molecular Biology (NDSU) ☐ Biology/Biological Science (DSU, MaSU, MiSU, NDSU, UJ, UM, UND, VCSU) ☐ Biotechnology (NDSU) ☐ Botany (NDSU) ☐ Chemistry (DSU, MaSU, MiSU, NDSU, UJ, UM, UND, VCSU) ☐ Computer Science (DSU, MiSU, RC, UM, UND) ☐ Earth Science (MiSU) ☐ Environmental Science (DSU, NHSC, SBC, UND) ☐ Forensic Science (UND) ☐ Geology (MiSU, NDSU, UND) ☐ Horticulture (NDSU) ☐ Mathematics (DSU, MaSU, MiSU, NDSU, UJ, UM, UND, VCSU) ☐ Microbiology (NDSU) ☐ Molecular and Integrative Biology (UND) ☐ Physics (NDSU, UND) ☐ Statistics (NDSU) ☐ Unmanned Aircraft Systems Operations (UND) ☐ Zoology (NDSU)	☐ Atmospheric Sciences (UND) ☐ Biochemistry/Biomedical Sciences (NDSU) ☐ Biology/Biological Science (NDSU, UND) ☐ Botany (NDSU) ☐ Cellular and Molecular Biology (NDSU) ☐ Chemistry (NDSU, UND) ☐ Coatings and Polymeric Materials (NDSU) ☐ Entomology (NDSU) ☐ Environmental & Conservation Science (NDSU, SBC) ☐ Geology (UND) ☐ Materials and Nanotechnology (NDSU) ☐ Mathematics (NDSU, UND) ☐ Microbiology (NDSU) ☐ Physics/Astrophysics (NDSU, UND) ☐ Plant Pathology (NDSU) ☐ Plant Sciences (NDSU) ☐ Space Studies (UND) ☐ Statistics (NDSU) ☐ Zoology (NDSU)



The Technology Student Association is a local, state, and national student organization created to develop skills in science, technology, engineering, and mathematics as well as business education. TSA aims to develop leadership, academic, and business management skills in the workplace among students and leaders within the community. Students currently or previously enrolled in Technology & Engineering courses join TSA and extend their learning and leadership through intracurricular activities, and competitions. Contact your school's TSA Advisor to get involved.

Pathway	OCCUPATIONS RELATING TO THIS CAREER CLUSTER
Facility & Mobile Equipment Maintenance	Automotive Service Technician • Collision Repair Technician • Diesel Engine Specialist • Marine Technician • Service Manager • Electrical/Electronic Technician • Industrial Electrician • Motorcycle & UTV Technician
Health, Safety & Environmental Management	Industrial Health & Safety Engineer • Safety Analyst • Environmental Scientist • First Responder • Environmental Compliance Specialist • Risk Manager
Logistics Planning & Management Services	Logistic Manager • Logistics Analyst • Logistician • Logistic Consultant • International Logistics Specialists • Logistic Engineer
Sales & Service	Marketing Manager • Sales Representative • Cargo and Freight Agent • Customer Service Representative • Customer Order and Billing Clerk • Sales Manager
Transportation Operations	Pilot • Flight Engineer • Truck Driver • Bus Driver • Dispatchers • Air Traffic Controller • Transportation Managers • Locomotive Engineer • Flight Attendant
Transportation Systems/Infrastructure Planning, Management & Regulation	Aviation Inspector • Logistics System Manager • Surveying and Mapping Technician • Motor Vehicle Inspector • Transportation Engineer • Freight Inspector
Warehousing & Distribution Center Operations	Warehouse Manager • Shipping & Receiving Clerk • Production/Planning/Expediting Clerk • Laborer & Material Handler • Industrial and Packaging Engineers

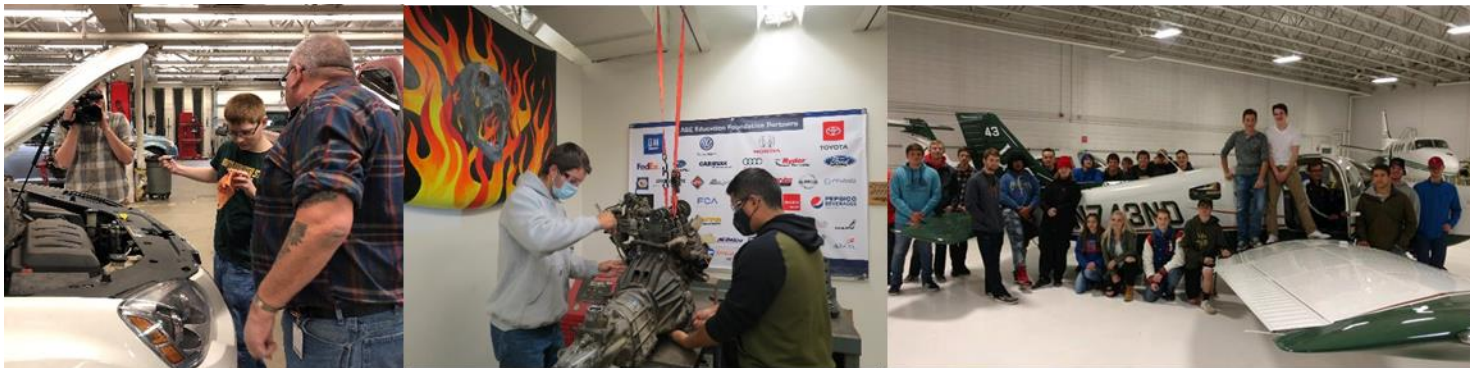


Is this Pathway for you?

- Are you someone who likes to work with your hands to solve problems?
- Do you like to interact with all kinds of people?
- Are you interested in technology and its ongoing innovation?
- Have you ever dreamed of owning your own business?
- Do you like to follow directions and use precise detail to complete a task?
- Does travel and moving from one place to another interest you?
- Are you interest in designing or working with a system to make things faster or more efficient?
- Do you like to work with your hands?

Transportation, Distribution & Logistics Career Cluster			
Transportation Operations		Facility and Mobile Equipment Maintenance	
Course Name	Cr	Course Name	Cr
Aviation Technology IA	.5	Automotive Technology I	1
Aviation Technology IB	.5	Automotive Technology II Bock	2
Aviation Technology II	1	Diesel Technology I	1
Unmanned Aerial Vehicle	.5	Diesel Technology II Bock	2
Cooperative Work Experience			.5 - 4
Students must earn at least 2 credits in a CTE pathway and 2 additional CTE credits to qualify for the CTE Scholarship			

Other Electives to Consider for Transportation, Distribution & Logistics Pathway Preparation
CTE Electives Exploring Business Software, Basics of Business Business and Personal Finance IT Essentials 1 & 2 Intro to Engineering Design, Principles of Engineering Construction Technology 1 & 2 Management/Entrepreneurship Manufacturing 1, 2, & 3 Welding I, II
Academic Electives AFJROTC Chemistry, Physics Consumer Math, Advanced Math, Pre-Calculus, AP Calculus Communications, Public Speaking, Psychology



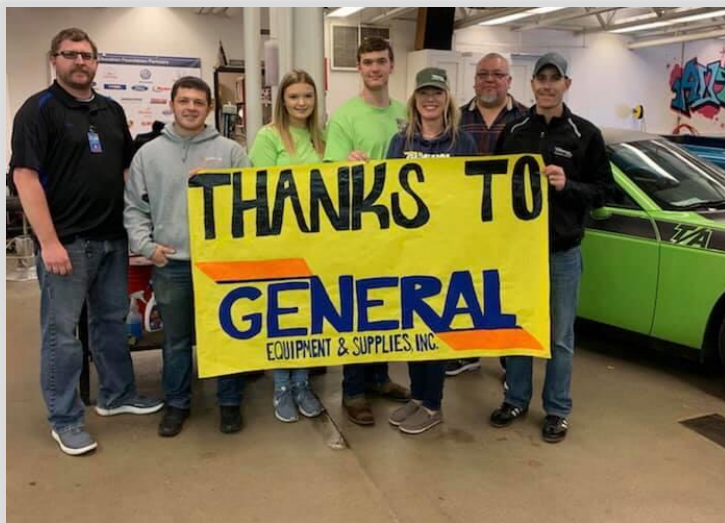
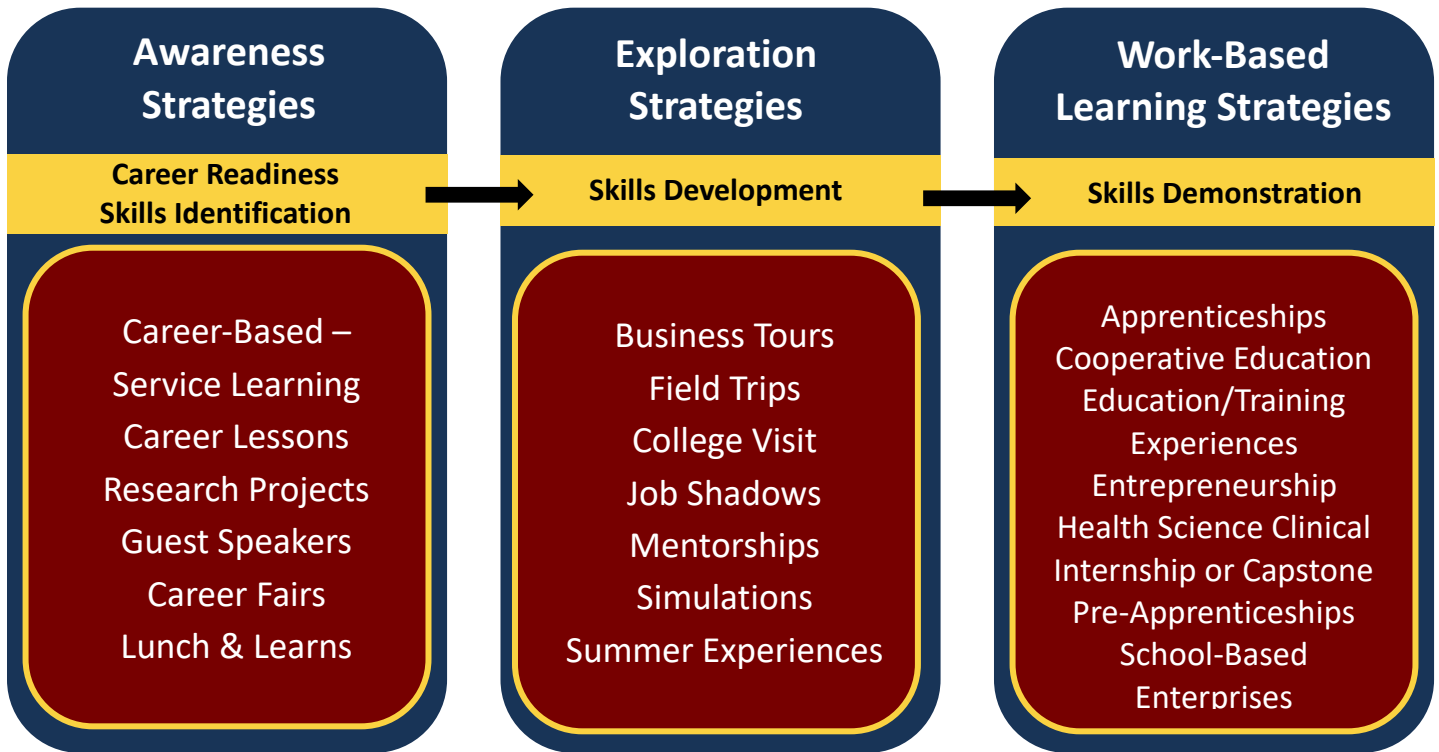
North Dakota Supply Chain & Transportation Related Postsecondary Programs

Pathway	Associate's Degree or Less	Bachelor's Degree	Master's Degree or More
Facility & Mobile Equipment Maintenance	☐ Auto Collision Technology (BSC, NDSCS) ☐ Auto Technology (BSC, BJCC, CCCC, LRSC, NDSCS, UTTC) ☐ Diesel Technology (NDSCS) ☐ Electronics Technology (BSC) ☐ Electronics & Telecommunications Technology (BSC) ☐ Facilities Maintenance (BJCC) ☐ Geographic Information Systems Technology (BSC) ☐ Power Sport Technology (NDSCS) ☐ Transportation Technician (WSC)		
Health, Safety & Environmental Management	☐ Environmental Public Health (TMCC)	☐ Environmental Design (NDSU) ☐ Environmental Health (DSU)	
Logistics Planning & Management Services	☐ Information Management Systems (DCB, NHSC, RC) ☐ Information Processing Specialist (BSC) ☐ Information Technology (DCB, LRSC, NDSCS, WSC) ☐ Management Information Systems (NDSCS)	☐ Business Administration/Business Process Integration Management (VCSU) ☐ Business Management (UM) ☐ Information Technology Management (DSU, UM) ☐ Management Information Systems (MiSU, NDSU, RC, UND) ☐ Operations/Supply Chain & Logistics (RC, UND)	☐ Business Administration/Project Management (UM) ☐ Transportation and Logistics (NDSU)
Sales & Service	☐ Business Management (WSC) ☐ Marketing & Management transfer (DCB, LRSC, RC)	☐ Airport Management (UND) ☐ Marketing (MiSU, NDSU, RC, UM, UND)	☐ Merchandising (NDSU)
Transportation Operations	☐ Airline Transport Pilot (FFS) ☐ CDL/Heavy Equipment (CCCC, NHSC, SBC, TMCC, UTTC) ☐ Commercial Pilot (EATC, FFS, GFKFS) ☐ Heavy Equipment Operator (UTTC) ☐ Instrumental/Multi-Engine Rating (EATC, FFS, GFKFS) ☐ Private Pilot (EATC, FFS, GFKFS) ☐ Recreational/Sport Pilot (EATC, FFS)	☐ Air Traffic Control (UND) ☐ Commercial Aviation (UND) ☐ Aviation Management (UND) ☐ Aviation Technology Management (UND) ☐ Flight Education (UND) ☐ Unmanned Aircraft Systems Operations (UND)	☐ Aerospace Sciences (UND) ☐ Aviation (UND)
Transportation Systems/Infrastructure Planning, Management & Regulation		☐ Airport Management (UND) ☐ Aviation Technology Management (UND) ☐ Operations/Supply Chain & Logistics (RC, UND) ☐ Public Policy ()	☐ Transportation and Urban Systems (NDSU)
Warehousing & Distribution Center Operations	☐ Management (BSC)	☐ Business Administration/Business Process Integration Management (VCSU)	



SkillsUSA is a local, state, and national co-curricular student organization serving high school, college and middle school students who are preparing for careers in trade, technical and skilled service occupations, including health occupations. SkillsUSA empowers its members to become world-class workers, leaders and responsible American citizens the SkillsUSA Framework of personal, workplace and technical skills. Ask about your SkillsUSA Advisor to join.

Career-Ready Work Experiences



Fargo high school students are encouraged to participate in work related experiences to develop employability, leadership, and job-related skills.

Students completing over 75 hours of Work-based Learning or 25 hours of Community Service are Career Ready candidates toward North Dakota's Choice Ready Pathways.

Cooperative work-based learning experiences may be measured on Career Ready Practice categories for Responsible Employee, Technical Skills, Communication, Problem-solving and Teamwork.

Work-based Learning refers to the knowledge and skills that can be gained in a work setting or simulated experience. These glimpses into the real-world can help students make more informed education and career decisions.

It is important for students to discover career fields that best fit their interest before beginning formal career work experience planning. The following are school-based and community-based options available for Fargo high schools students to explore.

Job Shadow/Observation:

A Job Shadow or Observation is an opportunity to pair a student with a person who does the kind of work the student wants to explore. Job Shadow/Observations generally last 2-8 hours and are typically limited to observing the worker. Job Shadows or Observations offer the student:

- A first-hand look at the occupation
- An opportunity to observe and ask questions
- A possible “contact” in the field of work

Interested? Talk with your career advisor, school counselor, or with a career and technical education (CTE) instructor.

Job Application / Interview:

Creating a resume that catches an employer’s attention, correctly completing an application form, and knowing how to interview for a job are not inherent skills. Students may work with the Career Center staff to learn and practice these skills.

Cooperative Work Experience (CWE):

CWE is a job placement directly related to a student’s classroom instruction in career and technical education (CTE). This experience must be arranged through a CTE instructor and career advisor. As a co-op student you:

- Are monitored and evaluated by your instructor and your employer.
- Receive a grade for the co-op experience.
- May be paid by the employer.
- A student can obtain a maximum of 2 credits during their high school experience. Hours are calculated as 75 hours for ½ credit, and 150 for 1 credit.



Capstone Experience:

A Capstone Experience is a project-based activity culminating at the end of coursework requiring the application and demonstration of essential skills outlined for the project.

Service Learning: Community Leadership Impact

Service learning offers students an opportunity to do something significant for other people in their community while enhancing their educational experience and personal growth. Students may earn up to one credit toward graduation by serving as a volunteer in the school system or through a non-profit agency.

Teaching Field Experience

A focused program to experience a teaching career in the elementary, middle, or high school setting.

- Students must have completed Intro to Education coursework. Dual credit optional.

Volunteer Opportunities: Social Inclusion

Post-secondary institutions and future employers look positively upon those who have given back to their communities. In addition to opening the doors of opportunity, participation in volunteer activities allows students to gain experience in areas of interest while helping others.

Work-based Learning Experience:

Option 1: A sustained interaction with industry or community professionals for a minimum of 40 hours, or Option 2: an approved educational setting simulating real-world experiences or projects based on the five Career Ready Practices categories of: Responsible Employee, Technical Skills, Communication, Problem-solving, and Teamwork.

Four Year Plan – Student Planning Template

Student Name: _____ School Year: _____ Current Career Goal: _____

School Counselor: _____ Career Advisor: _____ ACT Score: _____

Career Cluster #1: _____ Career Pathway: _____ Occupations: _____

Career Cluster #2: _____ Career Pathway: _____ Occupations: _____

Career Cluster #3: _____ Career Pathway: _____ Occupations: _____

	9 th Grade			10 th Grade			11 th Grade			12 th Grade		
COURSE	Course Name	Gr.	Cr.		Gr.	Cr.		Gr.	Cr.		Gr.	Cr.
ENGLISH	English or Honors English		1	English II or Honors English		1	English III or AP English III		1	English IV or AP English IV		1
MATH	Algebra I or Algebra I Conclusion		1	Geometry, Informal Geometry, or Algebra II		1	Algebra II or Upper-level math course		1	Upper-level math (recommended)		.5 or 1
SOCIAL STUDIES	World Geography		.5	Western Civilization or AP European History		1	US History or AP US History		1	Government or AP Government .5 and Economics or Microeconomics 5		1
SCIENCE	Physical Science or Biology		1	Biology or Chemistry		1	3 rd Science or Physics		1			
PE/HEALTH	PE and Health 9	.5 .5	1	PE		.5	PE		.5			
	Total Required Credits		4.5	Total Required Credits		4.5	Total Required Credits		4.5	Total Required Credits Total Required Credits 2021+		2.5 2
ELECTIVE												
ELECTIVE												
ELECTIVE												
ELECTIVE												
CREDITS/YEAR			6, 6.5 or 7			6, 6.5 or 7			6, 6.5 or 7			6, 6.5 or 7
WORK-BASED LEARNING HOURS			Hrs.			Hrs.			Hrs.			Hrs.