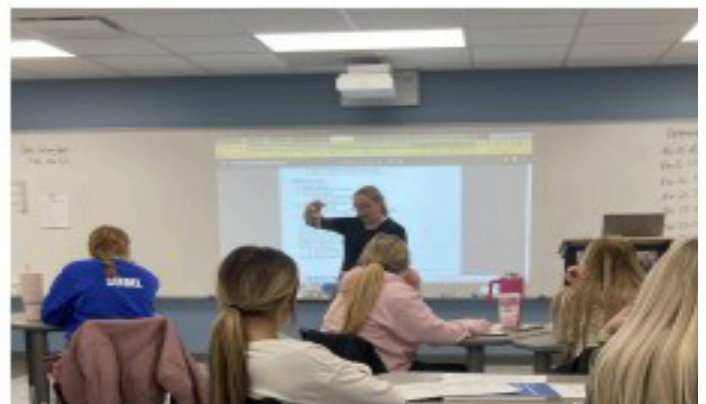


2025 - 2026

# COURSE CATALOG

◆◆ and program information ◆◆



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**PLEASE NOTE:** ALL registrations from each of the listed distance providers (CRACTC, BASC, RACTC, and GWN ITV) should be completed using the Western Dakota registration system: <https://registration.cractc.org/login> Please contact Amy Johnson [amy.a.johnson@k12.nd.us](mailto:amy.a.johnson@k12.nd.us) if you have any enrollment questions. If you have any questions regarding programming, course requirements, etc., please contact the program director for the applicable provider.

***Thank you and we look forward to serving your students and schools!***



***PREPARING TODAY'S STUDENTS FOR TOMORROWS EXPERIENCES***

### **CRACTC/CREA ADMINISTRATION**

**Pat Phillips**

CTE Director CRACTC  
& Bismarck Public Schools  
Office: 701-323-4340  
pat\_phillips@bismarckschools.org

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Assistant CTE Director  
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**Amy Johnson**

WesternND CTC Powerschool Registrar  
and Marketing Coordinator  
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**Luke Schaefer**

CREA Executive Director  
Office: 701-751-4041 ext. 105  
Email: Luke.Schaefer@k12.nd.us

**Additions or changes may be made based on  
enrollments received.  
Visit our website, [www.cractc.org](http://www.cractc.org), for updates.**

### **CRACTC TEACHERS**

**Agriculture:**

TBD

**Aviation:**

Jeff Horan  
Clint May

**Marketing:**

Michelle Hoff

**Information Technology:**

Jason Horner

**Health Science Careers:**

Lisa Brew  
Blaine Steiner  
Lorie McCarthy  
Jessica Mehlhoff  
Jessica Schafer

**Family and Consumer Science:**

Kayla Koth

**Graphic Arts:**

Kristy Horner  
Amanda Anderson

**STEM - Tech. & Engineering:**

Tim Meyer

# General Information

## CRACTC Mission

CRACTC will provide Career and Technical Educational (CTE) opportunities to our member schools' students, in the most economical fashion, where every student has the same educational opportunity regardless of the size or location of the school.

### *HELPING PREPARE TODAY'S STUDENTS FOR TOMORROWS EXPERIENCES*

## CRACTC

The CRACTC is a "Virtual" Career and Technical Center established in 2008 as a partnership between the CREA –Central Regional Education Association and Bismarck Public Schools. The CREA is 1 of 7 Rural Educational Associations (REA's) in North Dakota. Initial funding for this program came from a grant from the North Dakota Legislature through the State Department of Career and Technical Education and from the memberships of 42 school districts with high schools that are members of the CREA; school districts who are not part of the CREA/CRACTC membership may also enroll in CRACTC courses (dependent upon availability) at a non-member rate.

## CRACTC STUDENTS

The CRACTC delivers CTE courses to students utilizing Interactive Television (ITV) and Online Virtual classroom environments. Our goal is to provide opportunities for students to enroll in courses to complete a program of study. **CTE concentrators (students that complete 2 or more credits in a program of study) can qualify for the \$6000 ND State CTE Scholarship Program.** See your high school counselor for details. This may include taking the "Work Keys" test to qualify.

## CRACTC CTE COURSES

CRACTC CTE courses will include hands-on and career exploration events that student participation is required. This may include required CPR and First Aid Certification days, industry tours, training and career exploration events such as training and deployment of "Real Care" babies, hands-on welding experience, etc... that are integral to the skill and knowledge development in these classes. It may also include optional activities such as participation in Career & Technical Student Organizations (CTSO's such as DECA, FFA, Skills USA, HOSA or TSA) or industry field trips. Most courses will have one event per semester, but courses such as welding may require more. Travel is the responsibility of the local school, with travel reimbursement for member schools available from the CRACTC if needed.

## REGISTRATION PROCEDURE

The registration website: <https://registration.cractc.org/login> It can also be found on the CRACTC webpage, [www.cractc.org](http://www.cractc.org) The registration system asks for basic student information that we need to enter into the WesternND Powerschool. Indicate the selected course name, course term, along with the name, gender, email address and 10-digit State Student ID number for each student. We ask that school districts notify CRACTC if any registered student needs accommodations as designated in an IEP, 504 and/or ESL plan. Additional information for our Powerschool site will also be requested prior to the start of school. Information needed includes: race and ethnicity. This information can be downloaded from the local schools' Powerschool site and sent as a spreadsheet to [amy.a.johnson@k12.nd.us](mailto:amy.a.johnson@k12.nd.us).

CTE INTERNSHIPS – available by arrangement for each CTE program area.

Grades: 11, 12     ½ Credit/Semester     Online + Placement

Prerequisite: CTE Concentrators that have completed at least 2 credits in a CTE program of study may be considered for Internships. Students may continue their education with on-the-job experiences through participation in a workplace internship. Students 18 years or older may be required to have a background check per facility employer policies. Transportation to training sites is the responsibility of the student. Application and interview with the CTE instructor and internship coordinator is required prior to registration.



## **Deadline for Registration – April 25th, 2025**

**Lock-in date - May 9th, 2025**

After this time, substitutions and additions can be made but cancellations/drops will be charged the course enrollment student fee.

Student enrollment fees for CRACTC/BASC/RACCTC/GWN member schools:

- \$300 per semester course      - \$600 for full year courses.

Student enrollment fees for Non-member schools:

-\$400 per semester course      - \$800 for full year courses.

**Dual Credit:** Several CRACTC courses provide students the opportunity to earn Dual Credit, giving them a head-start on a postsecondary education. Dual Credit for eligible courses is optional. College admission application and fees are the responsibility of the student, home school and the student's parents or legal guardians. Bismarck State College (BSC) Fast-Track Coordinator will assist in the enrollment process. Contact information will be provided to students and schools prior to each semester. Courses may be eligible for tuition reduction and students who qualify for free or reduced lunches may be eligible for financial aid or grants through the Bank of ND. Applications can be found at: [https://bnd.nd.gov/pdf/dual\\_credit\\_assistance\\_application.pdf](https://bnd.nd.gov/pdf/dual_credit_assistance_application.pdf)

**Must be in 10th Grade to enroll in dual credit courses.**

**Facilitators:** The CRACTC recognizes the importance of having a local facilitator for online courses. Instructors rely on the local facilitator to handle many of the daily needs that an instructor cannot address at a distance in the virtual environment. CRACTC provides member schools' reimbursement of 60% of up to a \$2000 stipend for one facilitator in each of our member schools (which could be a total reimbursement of \$1200). Schools may apply for reimbursement at the end of each semester.

**Grade Scale:** The CRACTC grade scale is; A = 92-100, B = 83-91, C = 74-82, D = 65-73, F = 64 and below. Dual Credit courses follow the providing college's grade scale. CRACTC grades are posted on the CRACTC powerschool. Grades are official at 9 am on the Monday following the end of each semester and then can be transferred to the home schools' powerschool. Dual credit courses will follow the grade scale of the applicable college/university.

**Powerschool:** Logins and passwords are provided to each student and school facilitator or local powerschool administrator. PowerSchool questions/issues should be directed to CRACTC Powerschool administrator, Amy Johnson at amy.a.johnson@k12.nd.us.

**The CRACTC calendar can be found at [www.CRACTC.org](http://www.CRACTC.org)**

**Withdrawal Policy:** During the first 10 days of a semester, any class that is dropped will not show up on a transcript. If a student withdraws from a class prior to the end of 12 weeks into a semester, the grade will be recorded as a W (withdrawal, no grade, no credit). If the student withdraws after the twelve weeks, the grade will be recorded as a WP (withdrawal pass, no credit) or WF (withdrawal fail), no credit, counted as an F and will count on the students GPA. Most courses offered for a full year – 1 credit - cannot be given ½ credit if the student drops the class at the end of the first semester.

## **GRIEVANCE NONDISCRIMINATION AND ANTI-HARASSMENT**

CRACTC follows Bismarck Public Schools policies and procedures associated with non-discrimination and anti-harassment situations. Please refer to the Bismarck Public School website for the most up-to-date non-discrimination and anti-harassment policy.

<https://sites.google.com/a/bismarckschools.org/schoolboard/system/app/pages/search?scope=search-site&q=non-discrimination>

continued on the next page

Any CRACTC student, staff, or personnel who feels they are, or have been, discriminated or harassed during or within CRACTC course parameters (Online/ITV/face-to-face), contact your local school administrator to report the incident(s), with the local school administrator reporting to the CRACTC assistant director. The CRACTC assistant director will contact the BPS Title IX coordinator to begin the proper procedures and investigations in cooperation with the applicable local school administration. If the incident involves the local administrator, the applicable individual(s) shall directly contact the CRACTC assistant director. If the incident involves the CRACTC assistant director, contact the CRACTC director to begin the proper procedures.

**Grievance and Harassment Filing Procedure:**

<https://drive.google.com/file/d/0B4ZW3eBSjly6NWFEZ2dLdFkzRWs/view>. Please go to [www.CRACTC.org](http://www.CRACTC.org) for access to direct links listed above.

## **IEP/504/ESL STUDENTS**

The CRACTC strives to meet the needs of all students. Per the Federal Individuals with Disabilities Education Act (IDEA), CRACTC requests schools provide information regarding the needs/accommodations of registered students in order to provide them a positive and complete learning experience. Schools should indicate on their registration forms if any students has an Individualized Education Plan (IEP), 504, and/or ESL Plan in which accommodations shall occur. CRACTC will contact the applicable school to request necessary paperwork for any registered student who is indicated to have such needs/accommodations.

## **PLANS OF STUDY FOR STATE SCHOLARSHIPS**

ND resident students may apply for either the Career & Technical Education (CTE) or Academic Scholarships. Students utilizing CTE courses to meet the necessary requirements need to have two units of CTE credits from a coordinated plan of study recommended by the ND Department of Career & Technical Education and approved by the ND Superintendent of Public Instruction.

CRACTC has created the plan of study document, which is linked below, with regard to the courses we provide to help guide you through this process. If you have any questions regarding the document or course offerings, please contact Assistant Director, Lyle Krueger at your convenience.

<https://www.cractc.org>



1929 N Washington St.,  
Bismarck, ND 58501  
[www.CRACTC.org](http://www.CRACTC.org)



806 N. Washington St.  
Bismarck, ND 58501  
[www.bismarckschools.org](http://www.bismarckschools.org)



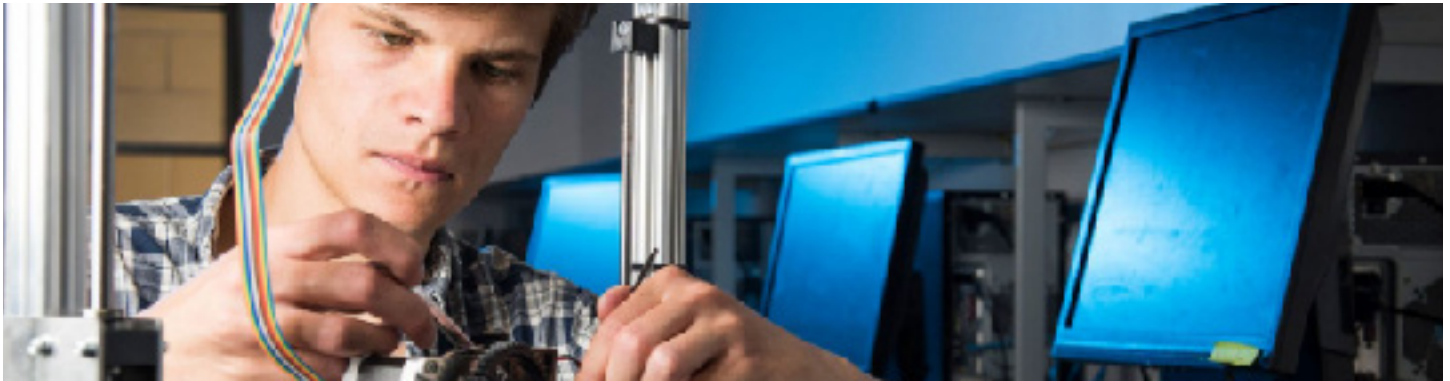
BPS Career Academy  
1221 College Drive  
Bismarck, ND 58501  
[www.bismarckcte.org](http://www.bismarckcte.org)



1929 N Washington St.,  
Bismarck, ND 58501  
[www.creand.org](http://www.creand.org)

The Bismarck Public School District, CREA, and CRACTC do not discriminate on the basis of race, sex, national origin, religion, age or disability in admission or access to, or treatment or employment in, its program and activities. For further information, call 701.323.4000.

# ADVANCED MANUFACTURING



## MECHANICAL DRIVE SYSTEMS (TBD) **NEW**

**Grades: 10-12      0.5 Credit      Fall Semester      Online + hands-on component**  
***Dual credit is available through BSC; ESRE 216 (4 college credits) toward a Mechatronics I Certificate. Must be in 10th Grade to enroll in dual credit courses.***

This course is your gateway to mastering the fundamentals of industrial mechanical systems through online learning and hands-on lab experience for real-world applications. You'll explore and explain the design, operation, and maintenance of key mechanical systems, including drivers, direct coupling, and geared systems, while developing expertise in tools and procedures for shaft alignment, lubrication, and driver setup. Learn to troubleshoot mechanical failures, understand the advantages of various system designs, and delve into essential operations like electric motors, step-up/step-down gearing, and basic system control. This course is a critical step toward earning stackable credentials, including the Mechatronics I Certificate or an AAS Degree in fields like Industrial Automation and Robotics, Energy Services and Renewable Generation, or Mechanical Maintenance Technology. Enroll today to build the expertise needed to power and sustain the industries of tomorrow!

## HYDRAULIC FUNDAMENTALS (TBD) **NEW**

**Grades: 10-12      0.5 Credit      Spring Semester      Online + hands-on component**  
***Dual credit is available through BSC; ESRE 213 (3 college credits) toward a Mechatronics I Certificate. Must be in 10th Grade to enroll in dual credit courses.***

This course is your gateway to mastering the principles and operation of hydraulic systems through online learning and hands-on lab experience for real-world applications. You'll learn to read hydraulic schematics, troubleshoot system issues, and understand the design and application of key components like pumps, valves, cylinders, and more. This course is a critical step toward earning stackable credentials, including the Mechatronics I Certificate or an AAS Degree in fields like Industrial Automation and Robotics, Energy Services and Renewable Generation, or Mechanical Maintenance Technology. Prepare for an exciting career in high paying, high-demand industries by gaining the skills to power the machinery of tomorrow!

# AGRICULTURE

## MECHANICS POWER SYSTEMS (01045)

**Grades: 10-12**

**0.5 Credit**

**Fall/Spring Semester**

**Online  
+ hands-on component**

This Mechanics course offers a study of the operation, maintenance, and repair of small gasoline engines. Instructional topics include but are not limited to the principles of operation of gasoline/diesel engines, tune-up and maintenance procedures, and disassembly, overhaul, and reassembly of gasoline small engines. Instruction may also include the operation of two and four-cycle engines commonly found on lawn mowers, snow blowers, rotary tillers, chainsaws, and other equipment. As time allows, other power systems could be covered. 20-25 hours of hands-on small engine lab experience is required for this course (required to attend to successfully complete the course). Students will meet at a selected facility for hands on supervised overhaul/repair and maintenance as a part of this class. Travel to the facility will be the responsibility of the local school.

## WELDING AND FABRICATION I (01046)

**Grades: 10-12**

**0.5 Credit**

**Fall Semester**

**Online + Labs**

The Welding and Fabrication I curriculum is designed to develop student's understanding of applied mechanical applications associated with the field of welding. Content includes, but is not limited to, instruction that prepares individuals to select, operate, and maintain a variety of welding equipment and related tools. Subject matter may include: Oxy-fuel cutting, heating and welding; Shielded metal arc welding; Gas metal arc welding and plasma arc cutting. Safety and metal fabrication as well as record keeping, leadership, communications, employability and human relations skills will also be emphasized. 20-25 hours of supervised hands-on welding lab instruction will be occur within the course (required to attend to successfully complete the course). Students will meet at a centrally located selected welding lab/facility for the hands-on supervised welding instruction part of this course.

Travel to/from the facility will be the responsibility of the local school. Welding/Fabrication I is preferred but not required to enroll in Welding/Fabrication II.



## WELDING AND FABRICATION II (01046)

**Grades: 10-12**

**0.5 Credit**

**Spring Semester**

**Online + hands-on component**

This curriculum is designed to develop student's understanding of applied mechanical applications associated with the field of welding. Content includes, but is not limited to, instruction that prepares individuals to select, operate, and maintain a variety of welding equipment and related tools. Subject matter may include: Plasma cutter, CNC plasma cutter, TIG, aluminum MIG, metal turning lathe, shear/break/role, hydraulic "Ironworker", and plastic welder. Safety and metal fabrication as well as record keeping, leadership, communications, employability and human relations skills will also be emphasized. 20-25 hours of supervised hands-on welding lab instruction will be occur within the course (required to attend to successfully complete the course).

Students will meet at a centrally located selected welding lab/facility for the hands-on supervised welding instruction part of this course. Travel to/from the facility will be the responsibility of the local school.





# AVIATION

## AVIATION I (17812)

**Grades: 10-12    1 Credit    Full Year**  
**Online + hands-on component**

This is the entry level course to prepare students for employment in the aviation industry. The course covers flight fundamentals, flight operations, aviation weather, performance and navigation. The course also explores careers in air traffic control, flight dispatching and airport management. Units of instruction include: safety of flight, airport layout, aeronautical charts, radar, radio procedures, airplane power plant, aerodynamics, weather patterns and hazards. Emphasis on applied academics in math and science are integrated throughout the curriculum along with decision-making principles as it applies to flight-related factors.



## AVIATION II (17813)

**Grades: 11-12    1 Credit    Full Year    Online + hands-on component**

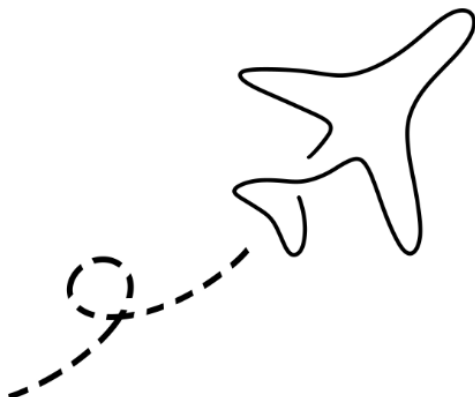
**Prerequisite: Aviation I**

This course will cover advanced flight topics as well as expanding topics covered in Aviation I. It will also expand on career exploration based on student aviation interests such as pilot, mechanic, air traffic control, airport management, etc. An Introduction to Unmanned Aircraft Systems (UAS) will also be included. Students will be preparing to pass the Federal Aviation Administration (FAA) private pilot written exam.

## AVIATION MECHANICS (TBD) **NEW**

**Grades: 10-12    1 Credit    Full Year    Online + hands-on component**

This If you love working with your hands and have a passion for mechanics, the Aviation Mechanics course is the perfect way to jumpstart your career in the high-wage, high-demand aircraft maintenance profession. This hands-on program follows the latest FAA Mechanic Airman Certification Standards (ACS), focusing on the general knowledge, skills, and risk management strategies needed for FAA mechanic certification—without covering airframe or powerplant subjects. You'll learn the fundamentals of aviation systems, tools, and safety practices, preparing you for real-world maintenance work. Plus, you'll have the opportunity to earn the ATEC General Aviation Maintenance Credential, proving your expertise and dedication to the field. If you're ready to turn your mechanical skills into a high-demand career, this course is your first step!



### POSSIBLE CAREER PATHWAYS IN AVIATION:

**PILOTING**

**AIRCRAFT TECHNICIAN**

**AIRCRAFT MECHANIC**

**FLIGHT INSTRUCTOR**

**AIR TRAFFIC CONTROLLER**

**AEROSPACE ENGINEER**



# BUSINESS

## **BUSINESS MANAGEMENT (14231) NEW**

**Grades: 11, 12**

**0.5 Credit**

**Fall Semester**

**Online**

This course transforms traditional business principles into real-world applications. From planning and organizing projects to building strong teams and making impactful decisions, you will gain practical experience in what it takes to lead effectively in today's dynamic workplace. Whether you are planning to run your own business, lead a team, or simply stand out in any future career, this course gives you the beginning tools and confidence to succeed.



## **BUSINESS LAW (14090) NEW**

**Grades: 11, 12**

**0.5 Credit**

**Spring Semester**

**Online**

Discover how the laws that shape our society impact your daily life and future ambitions within the business world. In Business Law, you will explore our legal system, learning how laws are developed, enforced, and applied in real-world scenarios including ethics contracts, personal and commercial property, sales, risk management, and much more! Whether you are planning to own a business, pursue a legal career, or just want to make smarter decisions, this class give you practical knowledge you can use in your future.



# **FAMILY AND CONSUMER SCIENCE**

## **FAMILY AND CONSUMER SCIENCE I (09022)**

**Grades: 9 - 12      0.5 - 1 Credit      Fall/Spring/Full Year      Online + hands-on component**

This exploratory course is highly recommended for students as an introduction to the other Family and Consumer Science (FACS) courses offered; especially 9th grade students. Students will learn about necessary everyday life skills they can use today and in their future. It includes basic information and discussion on each topic of FACS. Main concepts provided throughout the course will include the basic understanding of the purpose of family and care of children, dating and teen parenting, communication and goals, nutrition and wellness, personal finance, and clothing care and construction. Hands-on projects during the course may include: cross-stitching, hand sewing, balancing finances, and food prep and nutrition.

## **INDEPENDENT LIVING (09025)**

**Grades: 10 – 12      0.5 Credit      Fall/Spring Semester      Online + hands-on component**

For a student who is looking forward to being on their own, taking this course will help you avoid some common problems. Learn how to make big decisions, build a resume that will help you stand out, find ways to discover a career you enjoy, learn how to handle your money (taxes, investing, loans and more)! As well as, insurance, making large purchases like a car or a home, renting, finding a roommate, making healthy food choices, and proper clothing care are some of the topics covered in this class designed to make living independently easier!

## **CHILD DEVELOPMENT (09026)**

**Grades: 10 - 12      0.5 Credit      Spring Semester      Online + hands-on component**

Popular among students who want to learn more about children. This is a great class for anyone who expects to become a parent or plans to work with children. Students will put into practice what child development experts know will help children be happy, stay safe, and reach their full potential. Students will get an opportunity to practice caring for a child by taking home a RealCare baby for a period of 2-4 days.

## **PARENTING (09130)**

**Grades: 10 - 12      0.5 Credit      Fall Semester      Online + hands-on component**

Designed for both males and females, this course will prepare you for what is probably the most important job you will ever have, that of being a parent. This course will help you develop positive attitudes, realistic expectations and effective skills for parenting. Pregnancy, parenting roles of fathers and mothers, financial impact of a child and other parenting concerns are emphasized in this class. You will get to practice being a parent by taking home a “RealCare” baby for a period of 2-4 days.

## **FAMILY LIVING (09132)**

**Grades: 10 – 12      0.5 Credit      Spring Semester      Online + hands-on component**

Every one of us is a part of a family and each family is different. Many students will be forming their own new families before too long. This course is about how families function and how they have changed over time. The value of healthy families, not only to the individual family members but to society as a whole, is the primary focus of this class. Learn what contributes to a stable and meaningful family.

## **HOUSING AND INTERIOR DESIGN (09133)**

**Grade: 10 - 12      0.5 Credit      Fall Semester      Online + hands-on component**

The learning experiences in this course are planned to help the students recognize family needs and values as they pertain to housing. Students will evaluate factors for selecting and financing housing, furnishings and appliances. The “design your dream home” final project is a way for students to use their learned knowledge of color, furnishings and design. Other topics covered are floor plans, historic housing styles, and housing related careers. The course utilizes exciting, yet time intensive project-based curriculum. Schools and/or students will need to purchase additional materials/supplies for enrolled students in this course (approx. cost per student: \$30-50).

## **NUTRITION AND FITNESS (09137) NEW**

**Grades: 10 – 12      0.5 Credit      Fall Semester      Online + hands-on component**

This course is designed for all students concerned about nutrition and fitness and will explore such topics as sports nutrition in relation to performance, decision making and personal goal setting and stress management in relation to personal needs. Meal planning, fast foods, restaurant dining, family practices, genetically altered foods, weight loss and gain and current nutrition guidelines may be components of this course. Students will learn to read and interpret labels in relation to their dietary needs. Personal wellness and a healthy lifestyle will be the basis for lab experiences. There is a possibility of additional food expenses. Strongly encourage that either FACS I or Independent Living be taken prior.

## **EXPLORING THE TEACHING PROFESSION (09041)**

**Grades: 11 - 12      0.5 Credit      Fall/Spring Semester      Online + hands-on component**

***Free Dual Credit through a grant at the University of Mary will be available for Spring Semester. Must be enrolled in both Fall and Spring Semesters to qualify.***

Have you had a teacher make a positive impact on your life? Have you ever thought about possibly becoming a teacher yourself? The Exploring the Teaching Profession course will give students who are interested in becoming teachers a running start into the profession. The course will expose students to, and provide first-hand experiences in the duties of a teacher including, classroom management, student behavior, leadership and human relations skills, assessment of student progress, teaching strategies, and various career opportunities in the field of education. Schools and/or students will need to purchase additional materials/supplies for enrolled students in this course. (approx. cost per student: \$30-50)

**Work-Based Learning options for additional credit are available. Students who wish to continue with classroom learning experiences may sign up for a work-based learning experience. For more information please contact [kimberly.jensen@k12.nd.us](mailto:kimberly.jensen@k12.nd.us)**

**\*Coordination with local school administrators and teachers to complete local clinical hours is required.**

**\*\*Student transportation may be required to complete clinical hours if the school district has multiple buildings throughout your community.**



# GRAPHIC ARTS

## GRAPHIC DESIGN AND PHOTOGRAPHY I (17072)

**Grades: 10 - 12**

**1 Credit**

**Full Year**

**Online + hands-on component**

This intro course covers the basics of graphic design and photography. Students will learn key design principles and photo composition, capturing their own images and enhancing them with Adobe Photoshop. They'll experiment with digital collages, double-exposure effects, and more. Students will also use Adobe Illustrator to create posters, logos, and character designs while developing their skills in layout and visual communication, setting the stage for Graphic Design & Photography 2.

## GRAPHIC DESIGN AND PHOTOGRAPHY II (17073)

**Grade: 11, 12**

**1 Credit**

**Full Year**

**Online + hands-on component**

**Prerequisite: Graphic Design and Photography I**

Building on the skills from Graphic Design & Photography 1, this advanced course helps students refine their design and photography abilities. Students will dive into more complex design principles, advanced layouts and photo editing. Projects include creating branding packages, multi-layered digital compositions, and professional designs for real-world use. Using Adobe Photoshop and Illustrator, students will work on projects that prepare them for a career in design and photography while building a strong portfolio.



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**Possible Career Pathways in Graphic Arts:**

**Graphic Designer**  
**Illustrator**  
**Web Designer**  
**Film Editor**  
**Art Director**

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# HEALTH SCIENCE



## HEALTH SCIENCE I (07033)

Grades: 10 - 12

1 Credit

Full Year Online or ITV 4th period – 12:35-1:25 CT  
+ hands-on component

This year-long course provides students with information relating to the educational and professional requirements for the various medical careers. Students will also study the fundamentals of disease transmission and prevention, basic anatomy and physiology, and medical terminology. Students will complete CPR/AED for the Professional Rescuer and American HeartSaver First Aid. Two hands-on learning experiences are required and may necessitate travel to an alternate location. Additionally, there is an optional field trip to explore health science at ND college/universities. Students must successfully complete both semesters of this class including First Aid & CPR/AED Certification for Healthcare Providers. This course and the required certifications are the prerequisite to all other Health Science courses and is offered either on-line or via interactive television. **Dual Credit is available through Bismarck State College during Spring semester. Must be in 10th Grade to enroll in dual credit courses.**

## HEALTH SCIENCE II (07035)

Grades: 11, 12

1 Credit

Full Year

Online + hands-on component

**Prerequisite: Health Sciences I**

This course will expand on the knowledge gained in Medical Careers. Students will have the opportunity to explore various medical careers through research, professional guest speakers, college tours and potential job shadows. The curriculum is designed to enhance student employability skills and professional medical career readiness. Requirements for job shadowing: up to date vaccinations, including influenza and TB test are required per hospital/clinics/other healthcare facility policies. All students must have a background check. The school/student is responsible for necessary vaccinations and transportation to clinical sites. \*School/student may be responsible for additional course fees including name tag/polo shirt for tours/job shadows, and/or additional registration fees per hospital/clinic job shadow policies/expectations; approximate cost \$35/student.

## MEDICAL TERMINOLOGY (07036)

Grades: 10 - 12

0.5 Credit

Fall/Spring Semester

Online + hands-on component

**Dual Credit is available through Bismarck State College. Must be in 10th Grade to enroll in dual credit courses.**

In this course, students will develop skills necessary for decoding of commonly used medical terms including the meaning of medical suffixes, prefixes and word roots. Students will learn terminology associated with body systems, diseases and disorders of those systems. Students will also be expected to use correct spelling and pronunciation of medical terms they have learned and will learn commonly used medical abbreviations.

## CERTIFIED NURSING ASSISTANT (07032)

Grades: 11, 12

0.5 Credit

Fall/Spring Semester

Online

**Prerequisite: Health Science I including First Aid & CPR/AED Certification is required.**

This Certified Nursing Assistant Training program offers online instruction to prepare students for employment as a Certified Nursing Assistant in a skilled nursing facility, acute care or home health care. This North Dakota Department of Health-approved course provides students with the necessary curriculum and supervised skills training to take the state certification test through Headmaster to become a Certified Nursing Assistant. Students must meet the state-required hours by completing online assignments and attending hands-on days. Dual credit is available through Bismarck State College (NURS 100).

**Important Information: Students will no longer be able to “challenge” the ND state test. Students must complete a state-approved education program to be eligible for state testing.**

## Emergency Medical Technician (07045) **NEW**

Grades: 11, 12

1 Credit

Full Year

Online + hands-on component

**Prerequisite: Health Sciences I or Emergency Medical Responder (EMR)**

***Dual Credit will be available through Bismarck State College during Spring semester (must take full year course to qualify). Must be in 10th Grade to enroll in dual credit courses.***

Take another step toward an exciting healthcare career by enrolling in the Emergency Medical Technician (EMT) course! This online/hybrid program teaches life-saving skills like CPR and prepares you to handle real emergencies such as heart attacks, auto accidents and more. You will train with advanced equipment under the guidance of experienced paramedics and gain valuable insights from professionals in the field. Upon successful completion of the course, you will be eligible for ND State licensure testing and have the knowledge and experience to explore a variety of healthcare careers. We strive to work with qualified regional ambulance services for the hands-on skills training requirements in order to help reduce student travel and connect students with their local ambulance services. Don't miss this opportunity to build your future while learning how to make a real difference in your local community and region!



## POSSIBLE CAREER PATHWAYS IN HEALTH SCIENCE:



# INFORMATION TECHNOLOGY

## INTRODUCTION TO INFORMATION TECHNOLOGY (27101)

**Grades: 9 - 12      0.5 Credit      Fall Semester      Online + hands-on component**

This exploratory course covers fundamental concepts including computer hardware, networking, cybersecurity, databases, and software applications. Through interactive content and hands-on activities, students gain practical experience with core IT principles and technologies..

## COMPUTER HARDWARE & OPERATING SYSTEMS (27219)

**Grades: 9 - 12      0.5 Credit      Spring Semester      Online + hands-on component**

**Prerequisite – Introduction to Information Technology**

***Dual Credit is available through BSC. Must be in 10th Grade and 16 years of age to enroll in dual credit courses.***

This course provides exposure to computer hardware and operating systems. Students learn to assemble, configure, and troubleshoot computers, install software, and explore networking basics. Prepares students for CompTIA's A+ and IT Fundamentals certification exams.

## CYBERSECURITY I (27280)

**Grades: 10 - 12      0.5 Credit      Fall/Spring/Full Year      Online + hands-on component**

***Dual credit is available through BSC. Must be in 10th Grade to enroll in dual credit courses.***

As our world becomes increasingly dependent on technology, cybersecurity is a topic of growing importance. It is crucial that individuals and industry take precautions to protect themselves from the growing threat of cyber-attacks. The fall semester of this course prepares students with beginning knowledge and crucial skills to be responsible citizens in a digital future. Students will learn foundational cybersecurity topics including digital citizenship and cyber-hygiene, the basics of writing and solving codes, software security, networking fundamentals, and basic system administration. Although this is not a coding-intensive course, students will learn basic SQL, and will utilize basic HTML and JavaScript within specific contexts and will be provided supports within those contexts. Students will complete virtual projects at the end of each module.







## **CYBERSECURITY II (27280)**

**Grades: 10 - 12**

**0.5 Credit**

**Spring**

**Online + hands-on component**

***Dual credit is available through BSC. Must be in 10th Grade to enroll in dual credit courses.***

As our world becomes increasingly dependent on technology, cybersecurity is a topic of growing importance. It is crucial that individuals and industry take precautions to protect themselves from the growing threat of cyber-attacks. The spring semester will introduce students to best practices businesses use to protect their information as well as techniques individuals can use to protect themselves using social media. Identification of cybercrime, security principles, technologies and security principles to defend industry networks will be covered. A culminating course project where they will complete a simulated cybersecurity hacking experience will occur to build skills and knowledge for students to pursue careers in cybersecurity.

## **NETWORKING FUNDAMENTALS (27266)**

**Grades: 9 - 12**

**1 Credit**

**Spring Semester**

**Online + hands-on component**

***Dual Credit is available through BSC during Spring semester. Must be in 10th Grade to enroll in dual credit courses.***

This course teaches the basics of networking, including network devices, addressing, building home networks, configuring devices, and troubleshooting.

## **INTRO TO PROGRAMMING (27120)**

**Grades: 9 - 12**

**0.5 Credit**

**Fall Semester**

**Online + hands-on component**

This introductory programming course covers languages like Python, Java, JavaScript, and C++. Students gain foundational skills for further study in programming.

## **CODING WITH PYTHON (27123)**

**Grades: 10 - 12**

**0.5 Credit**

**Fall Semester**

**Online + hands-on component**

***Dual credit is available through BSC. Must be in 10th Grade to enroll in dual credit courses.***

This course teaches Python programming through hands-on labs and assignments, covering topics like procedures, arrays, sorting, and creating classes. In addition, students will program robots using Python, applying their coding skills to control and interact with robots in practical scenarios.

## **CODING WITH JAVA - COMPUTER SCIENCE A (27125)**

**Grades: 10 - 12      0.5 Credit      Spring Semester      Online + hands-on component**

***Dual credit is available through BSC. Must be in 10th Grade to enroll in dual credit courses.***

This course introduces students to Java programming, focusing on key concepts like variables, decision structures, and looping. Students will also engage in programming robots using Java, developing their coding skills while working with physical robots to perform tasks and challenges.

## **INTRO TO VIDEO GAME DESIGN (27130)**

**Grades: 9 - 12      0.5 Credit      Fall Semester      Online + hands-on component**

This course introduces students to video game development using code.org. Students learn about game design, controls, event-driven programming, and debugging.

## **VIDEO GAME DESIGN (27131)**

**Grades: 10 - 12      0.5 Credit      Spring Semester      Online + hands-on component**

**Prerequisite – Intro to Video Game Design**

This course builds on the skills learned in Intro to Video Game Design, focusing on more advanced programming and game development techniques through the Unity Game Engine. Multiple game projects are available to enhance your game design experience.

## **INTRODUCTION TO ARTIFICIAL INTELLIGENCE (AI) (27290) NEW**

**Grades: 10 - 12      0.5 Credit      Fall Semester      Online + hands-on component**

Step into the exciting world of Artificial Intelligence (AI) and explore how it's shaping our future. In this online course, you'll uncover the secrets behind machine learning, neural networks, and how AI powers real-world tools and apps you use every day.

Get ready to tackle fun, hands-on projects that show you how AI works and where it's headed. Plus, dive into potential career paths in AI and learn how to use this powerful technology responsibly by exploring the ethical challenges it brings. Whether you're a tech enthusiast or just curious about AI, this course will spark your creativity and set you on the path to innovation!



# MARKETING

*Students have the opportunity to participate in DECA through Bismarck Public Schools CRACTC group.*

## MARKETING (04210)

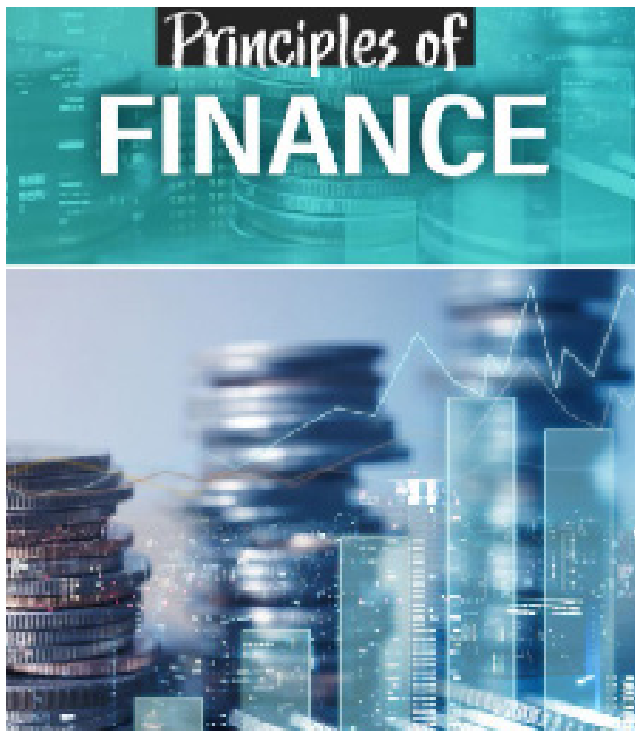
**Grades: 10 - 12**

**1 Credit**

**Full Year**

**Online + hands-on component**

This course develops student understanding and skills in such areas as channel management, marketing-information management, market planning, pricing, product/service management, promotion, and selling. Focus will be on the marketing mix, including products, promotion, pricing, and distribution. Through the use of projects and on-line simulations, students acquire an understanding and appreciation of marketing activities. Current technology will be used to acquire information and to complete the projects. Throughout the course, students are presented problem-solving situations for which they must apply academic and critical-thinking skills.



## PRINCIPLES OF FINANCE (04081)

**Grades: 9 - 12**

**0.5 Credit**

**Fall Semester**

**Online + hands-on component**

Principles of Finance expands student understanding of finance. Students develop their knowledge and skills in such areas as business law, communication skills, compliance, customer relations, economics, financial analysis, financial-information management, human resources management, marketing, professional development, and selling. Emphasis is placed on the analysis and purchase of securities and investments, as well as the need for effective customer relationship management and information management in finance. Principles of Finance is an entry level course in The Business Administration Program of Study for Marketing Education.

## SPORTS AND ENTERTAINMENT MARKETING (04240)

**Grades: 10 - 12**

**0.5 Credit**

**Fall Semester**

**Online + hands-on component**

This course introduces students to marketing occupations in the area of sports and entertainment. Take a look at the exciting and dynamic field of sports and entertainment marketing. One of the largest industries in the world, sport marketing provides a unique way of looking at the business world. This course will focus on the two main aspects of sports and entertainment marketing: 1) The marketing of sports and entertainment, and 2) The marketing of non-sports products and services through sports. You will discover why companies pay to be associated with a team or entertainer; how to develop ticket plans to fill the seats in the arena; why targeting your marketing efforts is so important; and more.

## **SOCIAL MEDIA MARKETING (04235)**

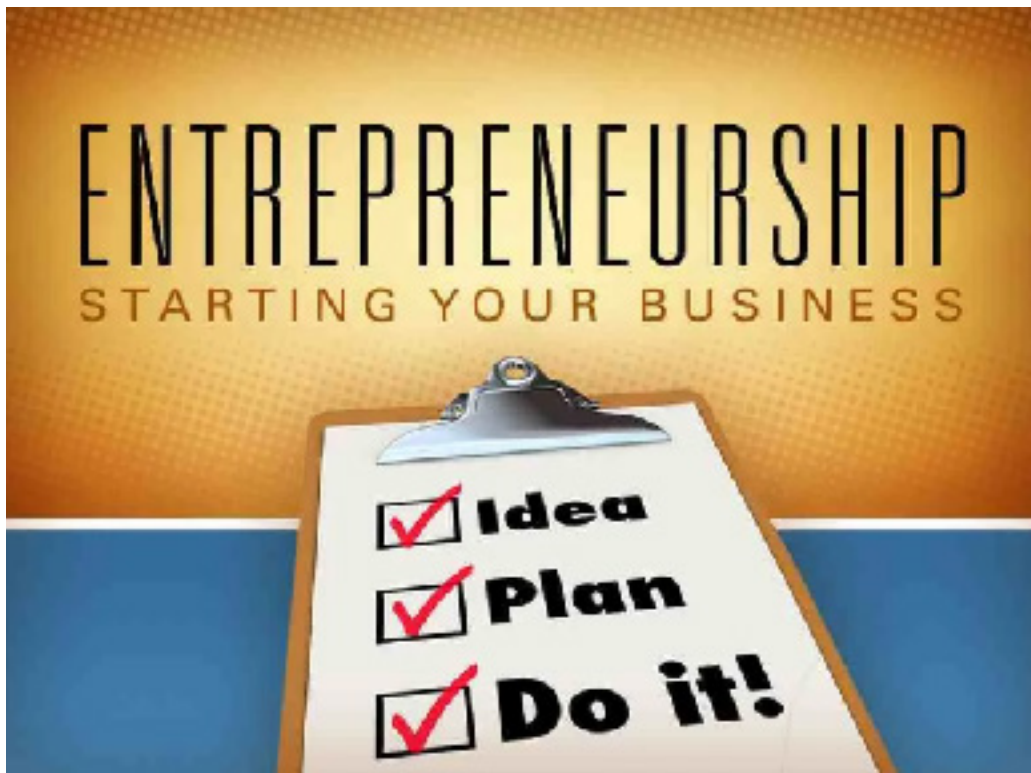
**Grades: 9 - 12**

**0.5 Credit**

**Spring Semester**

**Online + hands-on component**

Social Media Marketing presents the use of on-line social networking as a business strategy designed to increase customer loyalty and inquiry conversion. Students will study major social media channels and marketing campaign techniques, and evaluate contemporary and emerging tools in the digital marketplace including social bookmarking and techniques to drive social media traffic. Analyses of social media effectiveness will also be explored. Social Media Marketing is an entry level course in The Business Administration Program of Study for Marketing Education.



## **PRINCIPLES OF ENTREPRENEURSHIP (04110)**

**Grades: 9 - 12    0.5 Credit**

**Spring Semester**

**Online + hands-on component**

Have you ever thought of owning your own business? This is a marketing course that introduces students to a wide array of entrepreneurial concepts and skills. Students will develop an appreciation for marketing's role in the development and success of a new business. Students conduct thorough market planning for their ventures: selecting target markets; conducting market, SWOT, and competitive analyses; forecasting sales; setting marketing goals and objectives; selecting marketing metrics; and setting a marketing budget. The capstone activity in the course is the development of detailed marketing plans for students' start-up businesses.



# TECHNOLOGY & ENGINEERING

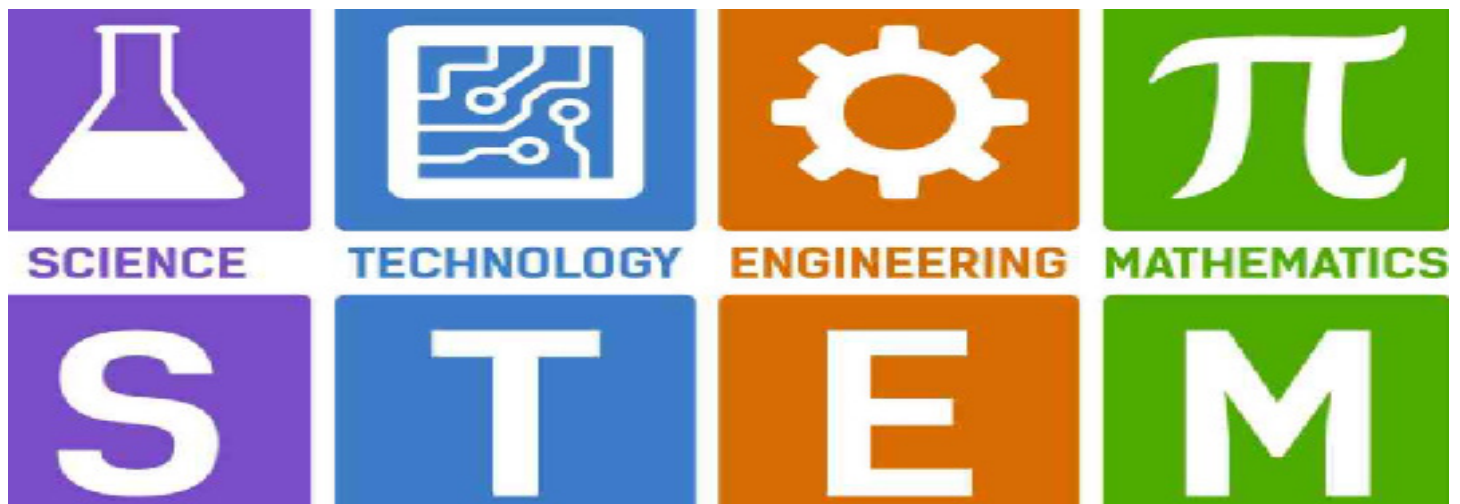
**\*\*Science credit option is available for STEM I and II. Science credit option is not CTE credit and is not accepted toward the state CTE Scholarship.**

## STEM SEMINAR I

*This course can be coded as **Tech Ed credit (11170)** or **Science credit (13150)**.*

**Grades: 9 - 12      0.5 Credit      Fall Semester      Online + hands-on component**

Build, Design, and Solve Real-World Challenges is an exciting, hands-on, project-based course where you'll use Science, Technology, Engineering, and Math to tackle real-world problems. You'll design and prototype projects like bridges, catapults, assistive-reach devices, and parachutes using everyday materials, while also diving into CAD programming to bring your ideas to life with precision. Explore the Engineering Design Process as you create digital and physical models of structures like cantilevers and test their strength and functionality. Your success is all about creativity, effort, and teamwork. This course is an introduction to the basics of exciting STEM careers and empowers you to shape the future. Sign up today and start designing your world!



## STEM SEMINAR II

*This course can be coded as **Tech Ed credit (11170)** or **Science credit (13150)**.*

**Grades: 9 - 12      0.5 Credit      Spring Semester      Online + hands-on component**

Power Up Your Creativity and Explore the Future is a continuation of fall semester STEM I with hands-on, project-based course where you'll dive into energy, power, and agricultural engineering using Science, Technology, Engineering, and Math to solve real-world challenges. You'll tackle exciting projects like building mousetrap cars, simple motors, batteries, and even a "putt-putt" boat, while mastering the Engineering Design Process and exploring innovative STEM careers. Your success is based on creativity, teamwork, and effort.

## **FOUNDATIONS OF ENGINEERING & TECHNOLOGY (10094)**

**Grades: 9 - 12**

**0.5 Credit**

**Fall Semester**

**Online + hands-on component**

**Prerequisite: STEM SEMINAR I or II**

Discover your inner innovator with the Foundations of Engineering course! This exciting next step course from STEM I and II, empowers students in grades 10-12 to design, create, and bring ideas to life. Learn how to transform your creativity into real-world solutions through hands-on projects in manufacturing, construction, energy, and communication technologies. Explore cutting-edge topics, while gaining a deeper understanding of how engineering shapes society and impacts the environment. Whether you're dreaming of inventing the next big thing or just love solving problems, this course offers the skills and knowledge to turn your vision into reality. Enroll now and start building your future today!

\*Schools may be required to purchase applicable course materials (approximately \$35 or less per student). \*\*Additional course material and supplies include items such as saws, drills, etc. to complete projects.

## **FOUNDATIONS OF ENGINEERING AND TECHNOLOGY II (10094)**

**Grades: 9 - 12**

**0.5 Credit**

**Spring Semester**

**Online + hands-on component**

**Prerequisite: Foundation of Engineering I**

This course is a continuation from the fall Foundations of Engineering I course. You will explore cutting-edge topics, while gaining a deeper understanding of how engineering shapes society and impacts the environment. Whether you're dreaming of inventing the next big thing or just love solving problems, this course offers the skills and knowledge to turn your vision into reality. Continue to expand your creativity into real-world solutions through additional hands-on projects. Enroll now and continue building your future learning in Engineering!

\*Schools may be required to purchase applicable course materials (approximately \$35 or less per student). \*\*Additional course material and supplies include items such as saws, drills, etc. to complete projects.



# Work-Based Learning (WBL)

Kim Jensen is the Work-based Learning Coordinator for over 700 students from within 57 different high schools located throughout mostly Central North Dakota who are taking courses with the Central Regional Area Career and Technical Center (CRACTC). The CRACTC offers Career and Technical Education (CTE) programming in several areas such as Agriculture, Aviation, Family & Consumer Sciences, Graphic Arts, Health Sciences, Information Technology, Marketing, and Technology & Engineering.

Kim's role is to be the bridge between students and industry by coordinating work-based learning opportunities such as job shadows, internships, and/or cooperative work experiences. Kim looks for businesses throughout the Central Region of North Dakota, both rural and urban areas, who would be interested in partnering with the CRACTC to provide these Work-based Learning opportunities for students and future workforce.

## Work Based Learning (WBL)– Cooperative Work Experience I

**Grades: 10-12**

**0.5 Credit**

**Fall/Spring Semester**

**Online/Hybrid**

Class size is limited, and preference will be given to juniors and seniors. Student's must select a program area in which they plan on completing the WBL Cooperative Work Experience and **MUST** have completed **AT MINIMUM** one credit of courses within that selected program area to be eligible for this course!

This course includes both online components providing learning opportunities involving career ready practice skill development including: 1) Responsible employee; 2) Technical Skills; 3) Communication; 4) Problem Solving; 5) Teamwork, as well as on-site work-based learning experience. The employment or practicum will be preceded by the classroom instruction related to the work experience. After completing the required online components, within the semester timeframe of the course, students will be guided to establish a regularly scheduled, supervised employment or practicum opportunity related to their career goals within their selected program area in order to develop and enhance their work skills. There shall be a training agreement among all partners involved in the cooperative work experience (i.e. CRACTC, school, employer and/or supervisor, student, and parents/guardians) outlining the expectations of each party. The instructor shall also develop a specific training plan with the employer and/or supervisor for each student placed for the work experience portion of this class. The training plan shall include provisions for assessment of student progress, and for on-site visits by the program facilitator during the student's placement. All cooperative work experience placements will require the approval of the school administration and the WBL program facilitator.

## Work Based Learning (WBL) – Cooperative Work Experience II

Grades: 10-12

0.5 Credit

Fall/Spring Semester

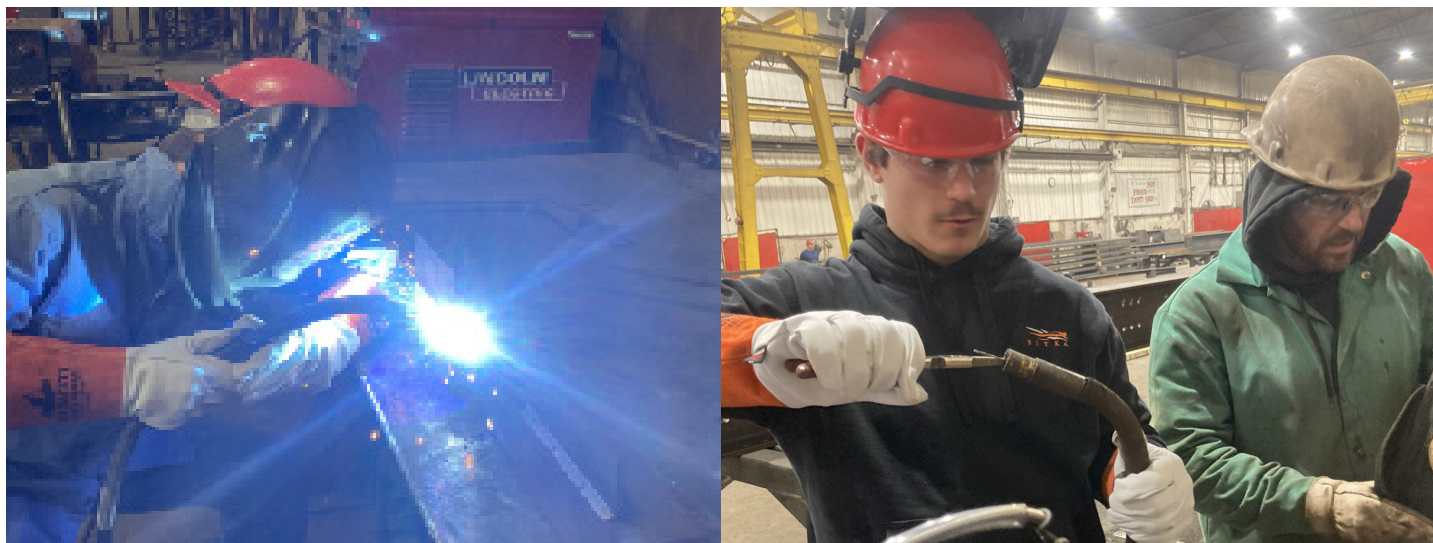
Online/Hybrid

**Prerequisite: Cooperative Work Experience I is required**

Cooperative Work Experience I must be successfully and adequately completed prior to enrollment in this course. Preference will be given to juniors and seniors who demonstrated strong evidence of the understanding and application of the Career Ready Practices within

Course I. Students who do not demonstrate strong evidence of the understanding and application of the Career Ready Practices within Course I may not be accepted into this course option to help ensure strong working relationships between our program and the participating industry partners. Student's must select a program area in which they plan on completing the WBL Cooperative Work Experience and **MUST** have completed AT MINIMUM 0.5 credit of courses within that selected program area to be eligible for this course!

This course provides students with an extended work-based learning experience beyond their learning in the Cooperative Work Experience I course. The course will be primary involving the regularly scheduled, supervised employment or practicum opportunity related to their career goals that extends beyond their previous learning. There shall be a training agreement among all partners involved in the cooperative work experience (i.e. CRACTC, school, employer and/or supervisor, student, and parents/guardians) outlining the expectations of each party. The instructor shall also develop a specific training plan with the employer and/or supervisor for each student placed for the work experience portion of this class. The training plan shall include provisions for assessment of student progress, and for on-site visits by the program facilitator during the student's placement. All cooperative work experience placements will require the approval of the school administration and the WBL program facilitator. Preference will be given to juniors and seniors who demonstrated strong evidence of the understanding and application of the Career Ready Practices within Course I. Students who do not demonstrate strong evidence of the understanding and application of the Career Ready Practices within Course I may not be accepted into this course option.







# BASC

## Bakken Area Skills Center

Main Goal: Provide in-demand training opportunities that are responsive to the needs of our region's workforce through collaborative partnerships with secondary education, post-secondary education/training, and local employers.

<https://www.basccte.com/>

### ***BASC ADMINISTRATION***

**Dr. Wayne Heckaman**

BASC Executive Director  
701-444-3626  
wayne.heckaman@k12.nd.us

**Scott Wisness**

BASC Assistant Director  
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**Teresa Macklin**

BASC Administrative Assistant  
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**Brant Hebert**

Business Manager  
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**Justin Johnsrud**

BASC Mobile/ CTE Curriculum Coordinator  
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justin.johnsrud@k12.nd.us

**Amy Johnson**

WesternND CTC Powerschool Registrar  
and Marketing Coordinator  
701-641-0569

### ***BASC TEACHERS***

**Agriculture:**

Grace Delp  
Samantha Doneen  
Caitlin Schilke

**Automation & Engineering:**

Justin Johnsrud  
Jayme Renner  
Derek Roemmich

**Building Trades:**

Corey Meuchel

**Health Sciences:**

Pat Axtman  
Zack Bebee  
Kayla Braunschweig  
Julie Dragseth

**Heavy Equipment Operator & CDL:**

George Adams

**Information Technology:**

Angel Ceja  
Kalsey Kronberg

**Welding:**

Mark Thiel  
Samantha Doneen

**Work-Based Learning:**

Melissa Meyer  
Jill Leach

# General Information

## Registration lock-in Date:

**May 9, 2025:** After this time, substitutions and additions can be made but cancellations/drops will be charged the course enrollment student fee.

Enrollment Cost: \$300 per semester course - \$600 per full year course for online courses. \$400 per semester course - \$800 per full year for block in-person courses.

## Drop/Payback Policy:

It is recommended that each school has a policy in place for a student to pay the school back if he/she decides to drop after the registration lock-in date.

## Dual Credit:

There are some courses that are offered Dual Credit. Contact Williston State College at 701-774-4500. Contact Bismarck State College at 701-224-5429. They have offered to come to your High School to help enroll students. Your student(s) should start this enrollment process right away and will need to pay the tuition and fees.

## Site Facilitators:

It is beneficial to have facilitators at each receiving school location. Instructors from the sending school rely on the local facilitator to handle many of the daily needs of classes. Please, do your best to have someone in the room during class at all times, however, it is necessary to have someone as a “go to” person for the sending instructor to communicate with (especially in case of an emergency).

## Grade Scale:

Any grades or midterm reports that are needed by the receiving site(s) should be sent to the site facilitator upon request. Each of the school districts involved have different procedures for grading. For this reason, communication between the sending teacher and the remote site facilitator is necessary. The receiving school will follow the teacher’s intent, in regard to the grade placed on the report card. For example, if a 72 is an F on the scale that the teacher uses, it must be converted to a corresponding F at the remote site (even if 70 is the passing percentage at the receiving site).

## Class Size:

Each class is different by the nature of the content and the way it is delivered (ex: ITV, online, etc). The minimum for MOST classes is 7 and the maximum is 28, unless otherwise stated in the catalog/schedule.

## Withdrawal Policy:

This will be left up to each school’s individual policy.



# AGRICULTURE

## INTRODUCTION TO AGRICULTURE (01011)

**Grades: 9 - 12**

**0.5 Credit**

**Fall Semester**

**Online**

Agriculture encompasses a broad area of life! This Introduction course is designed to introduce students to agriculture, its applications, and leadership development as the core foundation of the Ag Education program. Some of the topics will include, but not limited to, animal science, plant science, vet science, leadership and much more. This introduces the student to the array of opportunities with in the Agriculture Industry! Students in this course will be introduced to FFA and have the opportunity to join FFA if their host school does not offer it. Students will complete a work-based learning experience, such as a job shadow or other Supervised Agriculture Experience as part of this course.

## FOUNDATIONS OF AGRICULTURE (01012)

**Grades: 10 - 12**

**0.5 Credit**

**Fall Semester**

**Online + hands-on component**

This course provides students with a deeper understanding of the agriculture industry. Topics may include agronomy, livestock production, precision agriculture, and small animal care. Dual credit may be available through Williston State College. Students in this course will learn more about FFA and leadership opportunities. Students will complete a work-based learning experience, such as a job shadow or other Supervised Agriculture Experience as part of this course.

## INTRODUCTION TO MEAT PROCESSING (01068)

**Grades: 10 - 12**

**0.5 Credit**

**Spring Semester**

**Online + hands-on component**

This course provides an introduction to the meat processing industry, focusing on livestock meat primals, cuts, and grading. Students will gain hands-on experience with the principles and procedures involved in meat processing, fabrication, and sanitation. The curriculum is designed to familiarize students with the processing of agricultural products, including food, fiber, and materials, with an emphasis on their role in the global economy.

In addition to technical knowledge, the course will also focus on the development of key professional skills, including personal communication, human relations, leadership, and the application of supervised agricultural experiences. Students will engage in practical learning opportunities, utilizing local school labs and/or the Mobile Meat Lab, which offers a dynamic, real-world setting for skill development.

***Dual credit is available through Williston State College, with students required to participate in hands-on sessions.*** Travel to Watford City, Williston, or other BASC locations with the Mobile Meat Lab will be the responsibility of the local school.

## FARM AND RANCH MANAGEMENT (01035)

**Grades: 10 - 12**

**0.5 Credit**

**Spring Semester**

**Online**

Are you interested in learning how to run a business in our state's #1 industry? This course will teach you the basics of how to run a farm, ranch and other agribusinesses. Topics will include recordkeeping, taxes, commodity marketing, insurance, finance, risk management, Ag business management, & careers. Students will complete a job shadow, or other Supervised Agriculture Experience opportunity as part of this course. Attendance at a Farm & Ranch or Trade Show is expected as part of this course & travel is the responsibility of the local school.

## **EQUINE SCIENCE (01062)**

**Grades: 10 - 12**

**0.5 Credit**

**Spring Semester**

**Online**

***Dual credit for this course is available through Williston State College, providing students with both academic and professional qualifications upon successful completion.***

This course provides an in-depth review of the evolution and historical roles of the horse, exploring various breeds and the development of the modern-day Western equine industry. Topics covered include an introduction to equine anatomy and physiology, horse selection, nutrition, healthcare, and general management practices. The course is designed to offer students opportunities to learn, apply, and transfer their knowledge and skills in animal systems, with a specific focus on horses, donkeys, and mules. As part of the curriculum, students will engage in hands-on learning experiences, allowing them to develop the employability skills necessary for a successful career in equine science. These practical, laboratory-based activities will also emphasize the importance of professional work ethic, communication, and problem-solving.

## **VET SCIENCE I (01067)**

**Grades: 10 - 12**

**0.5 Credit**

**Fall Semester**

**Online**

This introductory veterinary science course provides a foundational understanding of the key concepts and skills required for a career in veterinary medicine. Students will explore a wide range of topics, including the relationship between animals and society, the role of animals in research, veterinary laws and ethics, common veterinary medical equipment, veterinary terminology, basic canine and feline anatomy, external anatomy of livestock, and the circulatory, respiratory, and digestive systems. In addition to gaining a comprehensive overview of essential veterinary knowledge, students will have the opportunity to earn a certification upon successful completion of the course, further enhancing their qualifications in the field.



## **VET SCIENCE II (01067)**

**Grades: 10 - 12**

**0.5 Credit**

**Spring Semester**

**Online**

This introductory veterinary science course provides a foundational understanding of the key concepts and skills required for a career in veterinary medicine. Students will explore a wide range of topics, including the relationship between animals and society, the role of animals in research, veterinary laws and ethics, common veterinary medical equipment, veterinary terminology, basic canine and feline anatomy, external anatomy of livestock, and the circulatory, respiratory, and digestive systems. In addition to gaining a comprehensive overview of essential veterinary knowledge, students will have the opportunity to earn a certification upon successful completion of the course, further enhancing their qualifications in the field.



# ARCHITECTURE & CONSTRUCTION

## BUILDING TRADES I (17105)

**Grades: 10 - 12**

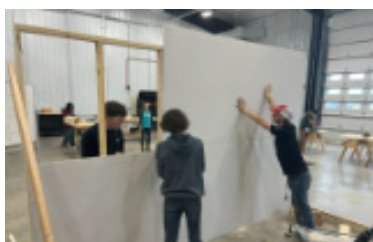
**0.5 Credit**

**Fall Semester**

**Online + hands-on component**

Building Trades 1 (Foundations) is a Prerequisite for Building Trades 2.

Foundations of Building Trades provides an introductory orientation to the building trades that meets industry standards. The course includes various areas of Construction Math (fractions, area, volume, degrees of angles, etc...), Basic Shop and Job Site Safety, Construction Literacy, Introduction to Hand and Power Tools, Introduction to Construction Drawings, Communication, Team Building, Organization, and Employability Skills. Fundamentals of building are introduced including Foundation Systems, Framing Methods, Roof Systems and Structure Enclosure. Students will complete OSHA 10 Certification, Hand Tool Certification, and smaller building projects. Foundations of Building Trades students may participate in the student organization SkillsUSA. Students will meet at the Bakken Area Skills Center. The online class will be offered in the Fall and students will meet at the Bakken Area Skills Center in Watford City for hands-on days. Travel to the facility will be the responsibility of the local school.



## BUILDING TRADES 2 (17100)

**Grades: 10 - 12**

**0.5 Credit**

**Spring Semester**

**Online + hands-on component**

### **Prerequisite - Building Trades 1**

Successful completion of Building Trades 1 (Foundations) is required to take Building Trades 2. Building Trades 2 will expose students to the opportunities available in the construction industry, including occupations such as Carpentry, Roofing, Plumbing, Heating, Ventilation and Cooling, Safety Supervision, and other occupations. Furthermore, Building Trades 2 will increase emphasis on Construction Math (adding/subtracting fractions, finding square footage, angles, material estimations, job quotes), problem solving, and employability skills. Students learn about the various processes and methods involved in construction projects and may engage in various builds. Students will learn about the risks and rewards of operating a construction business and construction planning. This course emphasizes job safety, responsibilities, qualifications, work environment, collaboration, and career paths within construction-based fields. Students will learn about various power tools and shop machines and become competent in their use. Building Trades 2 students may participate in the student organization SkillsUSA. Students will meet at the Bakken Area Skills Center in Watford City. The online class will be offered in the spring and students will meet at the Bakken Area Skills Center in Watford City for hands-on days. Travel to the facility will be the responsibility of the local school.

## BUILDING TRADES CAPSTONE (17950) NEW

**Grades: 11, 12**

**0.5 Credit**


**Fall/Spring Semester**

**Online**

### **Prerequisite - Building Trades 1 and Building Trades 2**

Students who complete both Building Trades 1 & 2 have the opportunity to complete a capstone their senior year in preparation for their chosen career path. Students will have the opportunity to choose from stackable options available to them, which may include certification options in H2S, Medic First Aid, Osha 10 or 30, Commercial Drivers License, among others. Students may also receive on-the job training in a work-based learning experience such as an internship or apprenticeship. Students may have the opportunity for dual credit through a post-secondary institution.

## HEAVY EQUIPMENT OPERATOR PATHWAY

Heavy Equipment Operator courses are offered in collaboration with Roughrider Area Career and Technical Center. See  page 41 for course offerings for the Heavy Equipment Operator Pathway.



## Introduction to Commercial Driving License (CDL) (17045)

**Grades: 11, 12**

**0.5 Credit**

**Fall/Spring Semester**

**Online**

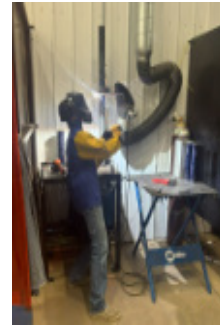
**+ hands-on component**

Are you interested in obtaining your CDL license and to have the opportunity to be employed directly after high school? The focus of this class is to expose students to CDL careers and to provide an opportunity to obtain the CDL license. The course will be completed in 3 parts: 1. CDL theory & career exploration, 2. CDL test prep & work-based learning experiences (simulated experiences, pre-trip inspection, job shadow, etc.), 3. Road and range (students have the opportunity to complete this once they turn 18). At the end of the course, students should have the skills needed to obtain a CDL permit and begin to work on the skills needed to pass the CDL drivers test. Students need to be 18 to obtain the CDL permit and to earn the CDL license.

The Online class will be offered in spring & fall and students will meet at the Bakken Area Skills Center in Watford City &/or TrainND in Williston or Bismarck for hands-on supervised days as a part of this class. Travel to the facility will be the responsibility of the local school.



# ENERGY (AUTOMATION AND MANUFACTURING)



## WELDING 1 (FOUNDATIONS) (17235)

**Grades: 10 - 12**

**0.5 Credit**

**Fall Semester**

**Online + hands-on component**

Offered in-person at the BASC or Online + Hands-On Days Regionally.

This course will expose students to opportunities in the manufacturing industry, including occupations such as assembler, manufacturing technician, machine operator, welder, and other occupations in the production pathway. Students learn about the processes involved in manufacturing and welding and may engage in various small projects. This course emphasizes responsibilities, qualifications, work environment, safety, and career paths within construction-related fields. This class is a prerequisite for Welding Technology 2. For the Online class, students will meet at the Bakken Area Skills Center in Watford City for hands-on days. Travel to the facility will be the responsibility of the local school.

## WELDING TECHNOLOGY 2 (17236)

**Grades: 10 - 12**

**0.5 Credit**

**Spring Semester**

**Online + hands-on component**

### **Prerequisite - Welding 1 (Foundations)**

Offered in-person at the BASC or Online + Hands-On Days Regionally.

Students learn the various welding processes: Oxy-Fuel weld and cutting, Shielded metal arc weld (Stick), Gas metal arc weld and Flux core arc weld (wire feed), Gas tungsten arc weld (Tig), Plasma arc cutting, and Air arc gouging. General shop safety and theory of each weld process along with blueprint reading, weld symbols, weld joints and positions, and properties of metals are studied. Students will progress through different types of welding each semester. Students will be introduced to structural and pipe, TIG Foundations and Aluminum and may choose an area of focus for a capstone upon completion of Welding Technology 2. For the Online class, students will meet at the Bakken Area Skills Center in Watford City for hands-on days. Travel to the facility will be the responsibility of the local school.

# AUTOMATION

## AUTOMATION 1 (FOUNDATIONS & PLTW) (37140 OR 10511)

**Grades: 10 - 12**

**0.5 Credit**

**Fall Semester**

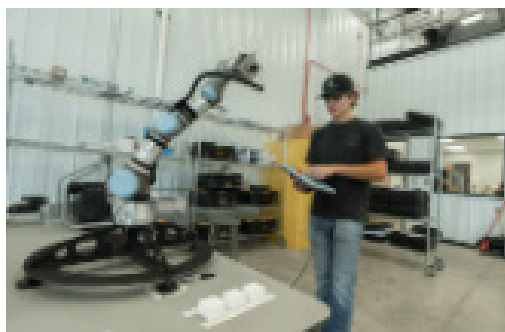
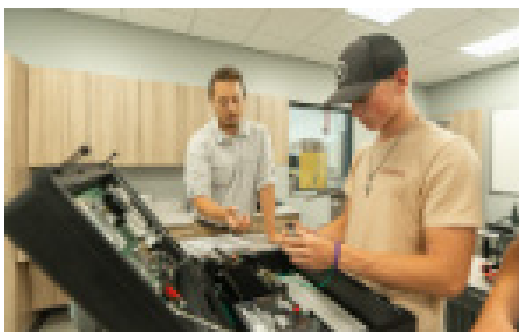
**Online + hands-on component**

Offered Hybrid Competency Completion + Hands On Days Regionally.

The Foundations of Automation course at the BASC is designed to teach industrial technology career foundation skills. Completion of this course ensures readiness for successful completion of the BASC Automation Pathway or for anyone interested in exploration of a technology based career. The course also serves as an opportunity for students to explore a wide variety of technologies to aid them in identifying personal aptitudes and interests. The course will cover content and skills deemed important by industry professionals. Basic computer skills, hydraulics, pneumatics, and mechanical principles, GPS and GIS, electronics, safety, and other concepts. Students will gain a better understanding of career opportunities in the area, become aware of the education, training, and skills needed for employment in the industry. This is a prerequisite for the Automation pathway and is only offered during the Fall Semester.

Limited modules are available to non-member schools, so contact BASC administration if interested.

Students will meet at the Bakken Area Skills Center in Watford City for hands-on supervised days as part of this class. Travel to the facility will be the responsibility of the local school.



## AUTOMATION 2 (FUNDAMENTALS) (17113)

**Grades: 10 - 12**

**0.5 Credit**

**Spring Semester**

**Online + hands-on component**

Offered in-person at the BASC or Hybrid Competency Completion + Hands On Days Regionally.

**Prerequisite: Automation 1 - Foundations**

The Fundamentals of Automation course at the BASC is designed to teach the core concepts of industrial automation. The course is a hands-on study of the physical aspects of automation including system wiring, component interfacing, process control, and circuit design and documentation. It will ensure the readiness for the digital aspects of automation to be studied in Automation 3. Students will gain a better understanding of career opportunities in the area, become aware of the education, training, and skills needed for employment in the industry, and may have the opportunity for job shadowing and work experience. This class is only offered during the Spring Semester.

Limited modules are available to non-member schools, so contact BASC administration if interested. Students will meet at the Bakken Area Skills Center in Watford City for hands-on supervised days as part of this class. Travel to the facility will be the responsibility of the local school.



# HEALTH SCIENCE

## HEALTH SCIENCE I (MEDICAL CAREERS I) (07033)

**Grades: 9 - 12**

**1 Credit**

**Full Year**

**Online**

The Online Medical Careers course will introduce students to a wide variety of health care fields as well as core knowledge & skills necessary for entry level employment in a variety of health care environments. Basic medical terminology, anatomy & related diseases/disorders, professional standards, safety, vital signs, monitoring body functions, disease prevention, as well as a basic introduction to a variety of health careers will be provided in this course. HIPAA Certifications will be obtained through the UND Centers for Rural Health.

## MEDICAL TERMINOLOGY (07036)

**Grades: 10 - 12**

**0.5 Credit**

**Fall/Spring Semester**

**Online**

This online course is offered as a dual college credit through Williston State College. In this online course, students will develop skills necessary for decoding commonly used medical terms. Students will learn the meaning of prefixes, suffixes, & word roots. This medical terminology course covers the basic knowledge & understanding of medical language & terminology used by healthcare professionals. This course requires a lot of independent work & utilizing good time management.

## NURSE ASSISTANT (07032)

**Grades: 10 - 12**

**0.5 Credit**

**Spring Semester**

**Online**

The Nursing Assistant Training program offers classroom instruction and clinical practice to those preparing for employment as a certified nursing assistant in a skilled nursing facility, acute care or home health care. Skills would include but are not limited to learning to taking vitals signs, bathing, feeding, and transferring residents in the facility. There will be 3 full MANDATORY days of hands-on practical learning in Williston or Watford City. The schools are responsible to get their students to these days. Dual Credit is available through Williston State College. Important Information: Students will no longer be able to "challenge" the ND state test. Students must complete a state-approved education program to be eligible for state testing.

## INTRO TO HEALTH PROFESSIONALS (37080)

**Grades: 9 - 12**

**0.5 Credit**

**Fall/Spring Semester**

**Online**

The Career Cluster for Health Careers encompasses planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development. It will provide an introduction to health careers through an examination of occupations within the health sciences industry.

## INTRODUCTION TO SPORTS MEDICINE (PREVENTION/CARE OF ATHLETIC INJURIES) (07034)

**Grades: 9 - 12**

**0.5 Credit**

**Fall/Spring Semester**

**Online/ITV 8:30-9:20 CT**

**Students can take it online any period and watch the recording.**

**Prerequisite: An Anatomy class is recommended**

Through theory, classroom engagement, and hands-on learning, students will become familiar with an introduction to the concepts relevant to sports medicine. Students will learn to: prevent, recognize, treat, and evaluate immediate care of athletic injuries; professional standards (i.e. professionalism & confidentiality- HIPAA), as well as some basic employability skills; basic anatomy & physiology in relation to subject matter as well as some pathologies in relation to subject matter; some hands-on-activities will include basics of taping/ wrapping/bracing & first aid with certifications through National Federation of State High School Associations (NFHS).

# INFORMATION TECHNOLOGY

## INTRODUCTION TO INFORMATION TECHNOLOGY (27101)

**Grades: 9 - 12**

**0.5 Credit**

**Fall Semester**

**Online**

An exploratory level course that provides exposure to careers and issues in information technology. Students will develop SCAN skills, including teamwork, communication, entrepreneurship, and personal management.

## INTERNET OF THINGS (27111) **NEW**

**Grades: 9 - 12**

**0.5 Credit**

**Fall/Spring Semester**

**Online**

Internet of Things (IoT) Fundamentals provides students with a comprehensive understanding of the Internet of Things (IoT). It develops foundational skills using hands-on lab activities that stimulate the students to apply creative problem-solving and rapid prototyping in the interdisciplinary domain of electronics, networking, security, data analytics, and business. Outcoming students can ideate, design, prototype, and present an IoT solution for an identified business or society need.



## CYBERSECURITY (27280)

**Grades: 10 - 12**

**0.5 Credit**

**Fall/Spring Semester**

**Online**

Introduction to Cybersecurity covers trends in cybersecurity and career opportunities. Course modules will define cybersecurity, explain its importance, and introduce products and processes to secure data. Students will also explore why cybersecurity is critical in business and medical industries, how hackers use unsuspecting individuals to propagate malware, and why cybersecurity is a growing profession. This course meets the state's Cybersecurity requirements and can be integrated within your school's Cybersecurity integration plan.

# PETROLEUM TECHNOLOGY

## **Petroleum 1 - Exploration of Oil Careers (Operations, Safety & Environment) (17413)NEW**

**Grades:** 11, 12

**0.5 Credit**

**Fall/Spring Semester**

**Online**

**+ hands-on component**

This course introduces students to key sectors of the energy industry and the critical role of operator technicians. It covers essential personal protective equipment (PPE), safe work practices, and procedures used in the field. Students will also develop a working knowledge of safety, health, and environmental regulations set by government and industry standards. Students will meet at the Bakken Area Skills Center in Watford City &/or Bismarck State College for hands-on supervised days as part of this class. Travel to the facility will be the responsibility of the local school.

## **Petroleum 2 - Petroleum Industry Skills (Equipment and Systems) NEW**

**Grades:** 11, 12

**0.5 Credit**

**Fall/Spring Semester**

**Online**

**+ hands-on component**

This course provides an introduction to mechanical concepts and equipment commonly found in energy and industrial facilities. Topics covered include hand tools, piping, valves, steam traps, strainers, and a variety of rotating equipment such as pumps, compressors, drivers, fans, and turbines. Bearings, seals, and lubrication systems are a key focus, along with heat exchanger designs, furnaces, boilers, cooling towers, separators, reactors, and distillation columns. The course also covers plant terminology, operator expectations, and the integration and utilization of this equipment within various plant systems. Students will meet at the Bakken Area Skills Center in Watford City &/or Bismarck State College for hands-on supervised days as part of this class. Travel to the facility will be the responsibility of the local school.

## ***Petroleum 3 - Print Reading and Petroleum 4 - Industry Science***

***will be offered for the 2026/2027 School Year in the  
Oil Industry Pathway***



# TRANSPORTATION

## Automotive Technology 1 (Foundations) (17029)

**Grades: 10-12**

**0.5 or 1 Credit**

**Spring Semester/Full Year**

**Online**

**+ hands-on component**

An introductory course in Auto Technology and includes an orientation to the eight areas of NATEF standardized programming; Suspension and Steering, Brakes, Electrical/Electronic Systems, Heating and Air Conditioning and Engine Performance. This course will also explore the various careers in the Automotive industry and is a prerequisite course to other Automotive courses within the BASC. On-line course content & hands-on days will both be implemented. Auto students may participate in the student organization SkillsUSA. The online class will be offered in the spring for 0.5 credit or for the full-year for 1 credit and students will meet at the Bakken Area Skills Center in Watford City for hands-on days. Travel to the facility will be the responsibility of the local school.

## Unmanned Aircraft Systems (17814)

**Grades: 10-12**

**0.5 or 1 Credit**

**Semester/Full Year**

**Online + hands-on component**

Are you interested in obtaining your pilot's license and to have the opportunity to be employed directly after high school? This year-long course will include UAS flight principles, career exploration, and will prepare you to pass the FAA Part 107 Remote Pilot Exam. Students may choose to take only a semester and receive 0.5 credit. The course will include online training, job shadowing, and simulated work-based learning experiences. At the end of the course, students have the opportunity to complete flight school and obtain their pilot's license. Students will meet at the Bakken Area Skills Center in Watford City for hands on supervised days as a part of this class. Travel to the facility will be the responsibility of the local school.





# Work-Based Learning (WBL)

## Cooperative Work Experience (Work-Based Learning)

Agriculture CWE (01999), Business CWE (14999), FACS CWE (09299), Health Science CWE (07999), Information Technology CWE (27999), Marketing (04999), Engineering (10999) & All Other BASC Pathway CWEs (17999)

Grades: 11, 12

0.5 or 1 Credit

Fall/Spring Semester

Online, In-person  
and on the job training

**Prerequisite: 2 CTE Pathway Courses, Instructor- Melissa Meyer**

Cooperative Work Experience provides a student with a regularly scheduled, supervised employment opportunity related to a student's chosen career area in order to develop and improve work skills. Students must have taken coursework within a specific pathway prior to the experience and will be coordinated by the BASC Work-Based Learning Coordinator. There shall be a training agreement among all partners to the work experience (school, employer, student, and parents/guardians) outlining the expectations of each party. Businesses must be approved by the WBL Coordinator & create a Golden Path Solutions Account. Students will be required to create their experience & update it within RUReady. A training plan and competency list will be utilized throughout the experience & site visits completed by the WBL Coordinator, so proximity to BASC schools is necessary.



**BASC**  
Bakken Area Skills Center



## **ROUGH RIDER AREA CAREER & TECHNOLOGY CENTER**

The Mission of Career and Technical Education is to work with others to provide North Dakota citizens with the technical skills, knowledge, and attitudes necessary for successful performance in a globally competitive workplace.

### ***RACTC ADMINISTRATION***

#### **RACTC Director**

**Ronda Schauer**

701-928-1676

ronda.schauer@k12.nd.us

#### **Amy Johnson**

**WesternND CTC PowerSchool Registrar  
and Marketing Coordinator**

701-641-0569

amy.a.johnson@k12.nd.us

### ***GOVERNING BOARD***

Lucas Greff	(Mott-Regent), President
Carrie Zackman	(Beach), Vice President
Laura Wallman	(Bowman)
Brent Seaks	(Dickinson)
Kim Shafer	(Glen Ullin)
Ashley Palmer	(Hebron)
Kortney Kindsfater	(Hettinger)
April Dutcuk	(Killdeer)
Amanda Seymour	(New England)
Duane Zent	(Richardton-Taylor)
Kelly Pierce	(Scranton)
Jule Walker	(South Heart)

### ***RACTC TEACHERS***

#### **Agriculture:**

Misty Steeke

Karagan Damjanovich

#### **Business Education:**

Shelly Christensen

#### **Electrical Technology:**

Erik Johnson

#### **Health Sciences:**

Bobbi Schneider

Adrien Kathrein

#### **Operating Engineers Pathway:**

George Adams

#### **Career Development:**

Arielle Schneider	Beach
Emily Henson	Belfield
Mia Stafford	Bowman
Megan Paulson	Hebron
Krista Olson	Hettinger
Kristi Voth	New England
Kari Mayer	Mott-Regent
Denise Oase	Scranton
Bobbie Olson	South Heart

**Additions or changes may be made based on  
enrollments received.**

# General Information

**Deadline for Registration:** April 25th, 2025

**Lock-in date:** May 9th, 2025. After this time, substitutions and additions can be made but cancellations/drops will be charged the course enrollment student fee.

**Student enrollment fees for RACTC/CRACTC/BASC/GWN member schools:** \$300 per semester course - \$600 for full year courses. Student enrollment fees for Non-member schools: \$400 per semester course - \$800 for full year courses. This set fee increases by \$600 for every 10 students. Each member school will be assessed an additional \$600 for every student enrolled. Nonmember schools will be assessed \$800 for each student enrolled in RACTC classes.

**RACTC courses follow the GWN calendar, found on the RACTC website.**

## **Dual Credit:**

Dual Credit will be available through Dickinson State University for Medical Terminology and Introduction to Sports Medicine.

## **Member Dues:**

RACTC member dues start at \$1,500 for the first 10 students attending the center (schools enrolling zero students in a given year will still be assessed \$1,500). A \$3500.00 membership will be charged for each school participating in the RACTC Emerging Technology Consortium.

## **Grade Scale:**

The RACTC grade scale is; A = 92-100, B = 83-91, C = 74-82, D = 65-73, F = 64 and below. Dual Credit courses follow the providing college's grade scale. RACTC grades are posted on the RACTC powerschool. Grades are official at 9 am on the Monday following the end of each semester and then can be transferred to the home schools' powerschool. Dual credit courses will follow the grade scale of the applicable college/university.

## **Powerschool:**

Logins and passwords are provided to each student and school facilitator or local powerschool administrator. PowerSchool questions/issues should be directed to RACTC Powerschool administrator, Amy Johnson at amy.a.johnson@k12.nd.us.

**Withdrawal Policy:** During the first 10 days of a semester, any class that is dropped will not show up on a transcript. If a student withdraws from a class prior to the end of 12 weeks into a semester, the grade will be recorded as a W (withdrawal, no grade, no credit). If the student withdraws after the twelve weeks, the grade will be recorded as a WP (withdrawal pass, no credit) or WF (withdrawal fail), no credit, counted as an F and will count on the students GPA. Most courses offered for a full year – 1 credit - cannot be given ½ credit if the student drops the class at the end of the first semester.

**The RACTC is in the process of creating individual documents for specific HEOP programs regarding a drop/payback policy.**

# AGRICULTURE

## LIVESTOCK PRODUCTION

**Grades: 10 - 12**

**1 Credit**

**Full Year**

**Online/ITV 11:11-12:00 CT**

**Instructor: Freidt**

This course is designed to prepare students for careers in the field of animal science and production in species including, but not limited to, beef cattle, dairy cattle, swine, sheep, goats, and poultry. The student will demonstrate technical skills relating to the interrelated human, botanical, scientific, and technological dimensions of animal systems and be able to assess the importance of the United States impact on world commodity markets while applying the principles of livestock breeding and nutrition in predicting the impact of current advances in genetics. The student is expected to describe common veterinary procedures and skills, practice proper animal restraint techniques, demonstrate identification techniques, and demonstrate effective management strategies. The student will learn the anatomy and physiology related to nutrition, reproduction, health, and management of domesticated animals. The student is expected to discuss feeding practices and feed quality issues, explain animal genetics and reproduction, and research current and emerging technologies in animal production. The student identifies animal pests and diseases and methods of disease control, treatment, and prevention. The student knows the factors impacting commodity prices and costs.

## CASE - ANIMAL SCIENCE (01881)

**Grades: 9 - 12**

**0.5 Credit**

**Spring Semester**

**Online/ITV 10:15-11:10 CT**

**Instructor: Steeke**

This course is a foundation-level course designed to engage students in hands-on laboratories and activities to explore the world of animal agriculture. Student experiences will involve the student of animal anatomy, physiology, behavior, nutrition, reproduction, health, selection, and marketing.

## COMMUNITY DEVELOPMENT (01993)

**Grades: 9 - 12**

**0.5 Credit**

**Fall Semester**

**Online/ITV 10:15-11:10 CT**

**Instructor: Steeke**

This course provides students in agriculture with an opportunity to understand the principles and fundamentals of the community development and gain an appreciation of essential community needs. Students will have the opportunity to study the community development process and select, plan, and implement a community development project or projects. Community leadership development and service learning are integral to the success of this course. CASE Agribusiness Curriculum will be used to survey the community along with WLC community service information.



# BUILDING TRADES

## OPERATING ENGINEERS PATHWAY

**Instructor: George Adams, BASC**

Get a jump start on the training and skills needed for a career as an operating engineer by enrolling in the Roughrider Area Career and Technology Center.

Through this unique partnership with the RACTC and the IOUE Local 49, students can take 4 semester courses that earn high school elective credits while getting the necessary training to enter the Operating Engineers Apprenticeship Program following graduation. We've also added a fantastic collaboration with the Bakken Area Skills Center (BASC),

where their instructor teaches both their face-to-face students and our online students.



**MUST BE TAKEN IN SEQUENTIAL ORDER**

### CONSTRUCTION EXPLORATIONS (37020)

**Grades: 10 - 12      0.5 Credit      Fall/Spring Semester      Online + hands-on component**

This course provides students with an introduction of the basic equipment used in the construction Industry. Students learn about basic equipment operations and job responsibilities. This course prepares students to use concepts pertaining to safety, maintenance, mathematics and communication that Operating Engineers may experience.

### BASIC GRADE & CONSTRUCTION MATH (37020)

**Grades: 10 - 12      0.5 Credit      Fall/Spring Semester      Online + hands-on component**

In the construction industry, grading is the work of ensuring a level base, or a grade with a specific slope. Grade construction work is needed in almost any building project, from laying a building foundation, to landscaping, or even roadwork. In this course, you will be introduced to core equipment used in the staking process, as well as Personal Protective Equipment (PPE) used in the construction industry. Communication processes used in the construction industry for interpreting and setting grade are also an important part of this course. Finally, you will learn mathematical concepts related to the construction industry for grade staking.

### BASIC CONSTRUCTION EQUIPMENT FUNDAMENTALS (17200)

**Grades: 11, 12      0.5 Credit      Fall/Spring Semester      Online + hands-on component**

In the construction industry, the proper use of heavy equipment is necessary to ensure quality work and a safe work environment. In addition, being able to recognize and determine the use of specific heavy equipment, will create a more efficient work team. Heavy equipment is used in almost any construction project, from building a house to excavating for a new road. In this course, you will be introduced to core equipment used by operating engineers, as well as their maintenance needs. Communication processes used by operating engineers, rigging and signaling practices, safety awareness and mathematical concepts related to the construction industry are also covered.

### BASIC MAINTENANCE OF MOBILE EQUIPMENT (17201)

**Grades: 12      0.5 Credit      Fall/Spring Semester      Online + hands-on component**

This course focuses directly on maintenance of mobile equipment through a series of engaging tutorials. A major focus of the course is on maintenance safety including such topics as LOTO. Other topics include tools and fasteners, preventative maintenance principles, engines, intake and exhaust, fuel systems, coolant systems, filters and filtration, lubrication systems, hydraulics, electrical systems, tires, and tracks and undercarriages.

# BUSINESS

Instructor for Business Education: Christensen



## ACCOUNTING I (14010)

Grades: 9 - 12

0.5 Credit

Fall Semester

Online

Students will learn the fundamentals of accounting principles that include: terminology, accounting cycle, basic concepts, financial statements, roles of accountants and ethics in accounting. Simulation packets are often integrated in the course.

## ACCOUNTING II (14011)

Grades: 9 - 12

0.5 Credit

Spring Semester

Online

**Prerequisite:** Accounting I

Students will continue learning the fundamental concepts of Accounting. Topics covered include terminology, accounting cycle, basic concepts, financial statements, roles of accountants and ethics in accounting.

## ACCOUNTING III (14012)

Grades: 10 - 12

0.5 Credit

Fall Semester

Online

**Prerequisite:** Accounting I and II

Students will acquire a more thorough, in-depth knowledge of accounting procedures and techniques utilized in solving business problems and making financial decisions. Students will develop skills in analyzing and interpreting financial information common to businesses. A contemporary business simulation set that lets the student put accounting skills into practice is often included.

## ACCOUNTING IV (14013)

Grades: 10 - 12

0.5 Credit

Spring Semester

Online

**Prerequisite:** Accounting I - III are required

Students will continue to develop skills in analyzing and interpreting information common to corporate forms of organization, preparing formal statements and supporting schedules, and using inventory and budgetary control systems. Higher level corporate, managerial and cost accounting concepts are presented in this course. A contemporary business simulation set that lets the student put accounting skills into practice is often included.

## **WORD PROCESSING (14095)**

**Grades: 9 - 12**

**0.5 Credit**

**Fall Semester**

**Online**

Students in Word Processing will use word processing software to create and edit documents such as business letters, envelopes, labels, flyers, reports, and newsletters. Improved productivity will be developed using time-saving shortcuts, including templates, merging, tables, and key commands.

Students will continue to practice formatting, editing, composition, and proofreading.

## **SPREADSHEET (14025)**

**Grades: 9 - 12**

**0.5 Credit**

**Spring Semester**

**Online**

Students in Spreadsheet will be introduced to spreadsheet software/applications to analyze business trends and solve problems for business and personal use. This course will include designing and using worksheets, writing formulas, analyzing data, charting data, managing data, using pivot charts/tables, creating macros, and displaying information on web pages.

## **WEB DESIGN 14022)**

**Grades: 9 - 12**

**0.5 Credit**

**Fall Semester**

**Online**

Students in Web Design will be introduced to various ways to create and maintain web pages. Course topics will focus on overall production processes, emphasizing design elements involving layout, navigation, and interactivity. Understanding proper ethics, copyright laws, social networking, and cyber security topics will be integrated. The basic language of web design and software will be taught along with the additional media inputs within a website (e.g., video, animation, sound, scrolling marquees, forms, contacts, and other additional components).

## **MULTIMEDIA (14099)**

**Grades: 9 - 12**

**0.5 Credit**

**Spring Semester**

**Online**

Students will use digital images and videos to create meaningful documentation, production, and presentations. Images, logos, backgrounds, and navigation tools for digital display will be used in multimedia and internet applications.



# HEALTH SCIENCE

## HEALTH SCIENCE I (07033)

Grades: 9 - 12

1 Credit

Full Year

ITV/ Online/ In-Person

Instructors: Schneider, Kathrein

Class cap: 25

**Prerequisite: C or better in most recent science course.**

This course is designed to assist students interested in the medical field in determining an occupation that will best suit their capabilities and interests. The students will be given a foundation in areas such as: medical terminology, anatomy and related disorders, professional standards, safety, monitoring body functions, disease prevention. The student will explore various health careers throughout the course. Emphasis on academics, professional development, leadership, and organizational skills are integrated into the curriculum.

## HEALTH SCIENCE II (07035)

Grades: 11, 12

1 Credit

Full Year

Online

Instructors: Schneider, Kathrein

Class cap: 12

**Prerequisite: C or better in Health Science 1 as well as teacher recommendation based on prior attendance and discipline issues.**

This course has been developed to provide students interested in the medical field and indepth study of a careers of their choice. The program is a competency based individualized curriculum in which the student will learn to balance various aspects of health and wellness, improve self-esteem, and make knowledgeable decisions regarding their career choice. A primary component of the course offers in-depth career studies. Students will expand their skills and knowledge in specific areas of interest during clinical rotations in the community. Emphasis on academics, professional development, leadership, and organizational skills are integrated throughout the curriculum. The students will also obtain their American Heart Association Basic Life Support (BLS) certification, HIPAA certification, and create their own career portfolio. **Student is responsible for providing own transportation to job shadowing.**

## MEDICAL TERMINOLOGY (07036)

Grades: 9 - 12

1 Credit

Full Year

ITV/ Online/ In-Person

Instructors: Schneider, Kathrein

Class Cap: 25

***Dual credit through Dickinson State University***

**Prerequisite: C or better in most recent science course.**

This course is designed to introduce students to medical language used in the health care field. Students will learn prefixes, suffixes, and root words for medical terms. This will include meanings, spellings, and pronunciations. Emphasis on building a working medical vocabulary based on body system. Anatomy and physiology of major organs, pathological conditions, laboratory studies, clinical procedures and abbreviations for each body system.



## EMERGENCY MEDICAL RESPONDER (07045)

Grades: 10 - 12

0.5 Credit

Fall/Spring Semester

Online/ITV/In-Person

Instructor: Schneider

Class cap: 15

**Prerequisite: C or better in most recent science course.**

The EMR course is an introductory competency-based course and follows a curriculum that will be used as a guide to the appropriate procedures to be used when rendering emergency care to the sick and injured. The procedures and protocols that are learned are based on the most current standards of credentialed medical sources. If all course requirements are met, students have the ability to be certified and licensed as an Emergency Medical Responder through the North Dakota Emergency Medical Services. Students will also obtain their American Heart Association Basic Life Support (BLS) certification. **It is recommended students taking the EMR course turn 16 prior to the completion of the course.**

## INTRODUCTION TO SPORTS MEDICINE (07034)

Grades: 11, 12

1 Credit

Full Year

ITV/ Online/ In-Person

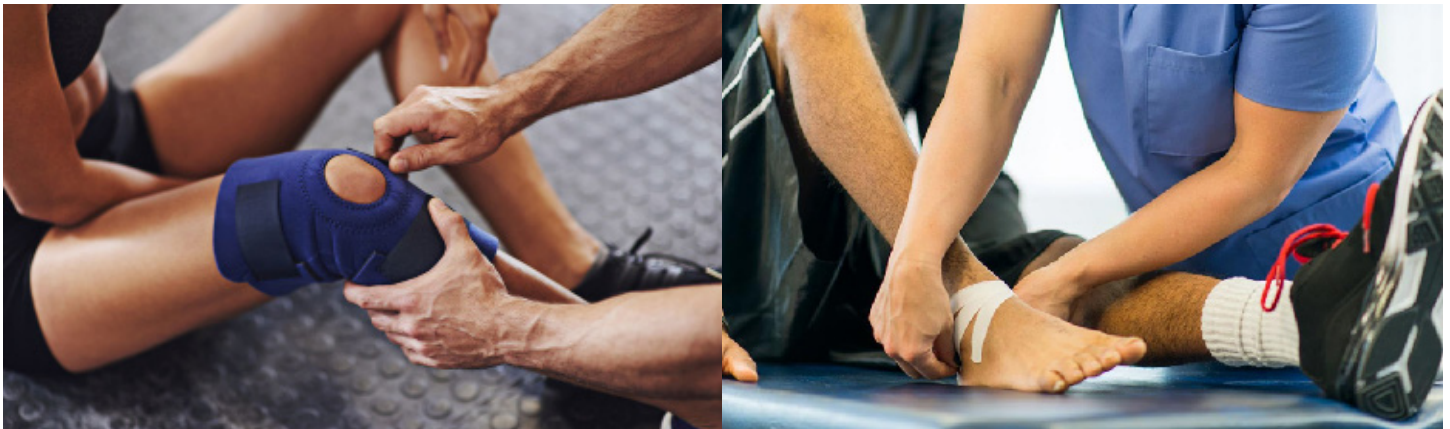
Instructors: Kathrein

Class Cap: 20

*Dual Credit through Dickinson State University*

**Prerequisite: C or better in most recent science course.**

In this course students who are interested in athletics and the medical needs of athletes will cover four distinct disciplines which will allow them to grasp the concepts of anatomy and physiology, and then apply them to sports medicine and athletic training. Students will be assigned to job shadow an athletic trainer or other professionals in sports medicine during this course. American Heart Association BLS and First Aid Certification upon completion of the class.



## CERTIFIED NURSE AIDE (07032)

Grades: 10 - 12

1 Credit

Full Year

Online

Instructors: Kathrein

Class Cap: 12

**Prerequisite: C or better in Health Science 1 or EMR as well as teacher recommendation based on prior attendance and discipline issues.**

This course provides instruction to those interested in becoming a Certified Nurse Aide. Students must obtain 16 hours of direct supervised instruction by an RN. This course teaches fundamental nursing skills performed by a Certified Nurse Aide, employability skills, communication, legal responsibilities, ethics, safety, teamwork, health maintenance practices, information technology, and medical terminology. Students are given supervised practical training and prepare for employment in various clinical settings. American Heart Association BLS Certification upon completion of the class. NDDOH State CNA certification test eligibility at the end of the class.

**Important Information: Students will no longer be able to “challenge” the ND state test. Students must complete a state-approved education program to be eligible for state testing.**

## HEALTH OCCUPATION EXPERIENCE PROGRAM (07999)

Grades: 11, 12

1 Credit, not to exceed 4 credits while in high school

Full Year

Online, In-Person, and On-the-Job Training

Instructor: Kathrein

This course provides students with a regularly scheduled, supervised employment or internship opportunity related to a health career. The placement must be preceded by, or concurrent with classroom instruction related to the work experience consistent with the student's occupational goals and related to the health program area. There shall be a work experience agreement among all partners (school, employer or clinical site, student, and parent/guardians) outlining the expectations of each party. The instructor shall also develop a specific training plan with the employer or clinical site for each student placed. The training plan shall include provisions for assessment of student progress and for on-site visits by the instructor during the student's placement. **Students must be at least 16 years old and may be paid a wage by the employer. \*\*The Work-Based Learning Application must be filled out completely and submitted. Please note not all students will be accepted. Content areas: Dental Assisting, Pharmacy Tech., Direct Support Staff (Able, Inc.), EMT, CNA, ATC, and any other health-related areas of interest may be accommodated for internships if placement is possible. (Example: PT, OT, Speech Therapy, Lab, Vet, EMS etc.)**

**Dental Assisting:** The students will be paired with a local dentist for a two-year commitment of approximately 3 hours of job-shadowing a week. This course consists of online academic modules and on-the-job shadowing and training. Once the course requirements such as passing the ICE, AMP, and RHS certification exams are met and job shadowing hours (300 hours total) are obtained the student will have the opportunity to apply for North Dakota licensure as a Qualified Dental Assistant. Apply your sophomore year for consideration.

**Certified Nursing Assistant:** (Different than the in-person CNA course offered). The student is hired as an employee at a nursing home. Students will be expected to show up for scheduled shifts, meetings, and other job requirements, and complete assigned work tasks.

**Direct Support Staff:** The student is hired as an employee of Able, Inc. to provide support to people with disabilities in all aspects of their lives. Students will be expected to show up for scheduled shifts, meetings, and other job requirements and complete assigned tasks.

**Pharmacy Technician:** The student is hired as an employee of Clinic Pharmacy or Medicine Shoppe Pharmacy. The course consists of online academic modules and on-the-job experience. (160 hours total). Upon completion of course requirements, the student will obtain the Certified Pharmacy Technician certification.

# TRADE AND INDUSTRIAL

## ELECTRICAL TECHNOLOGY (17125)

**Grades:** 11, 12

**1 - 2 Credits**

**Full Year**

**Online + hands-on component**

**Instructor:** Johnson

This course is specifically crafted to lay the groundwork for a future career as an electrician, blending online coursework with periodic hands-on sessions available depending on students' locations and schedules. Covering five main topics, the program commences with "Constructing Your Future," offering insights into construction trades apprenticeship programs, professional conduct, and safety considerations. It delves into personal financial management, emphasizing the significance of a safety mindset, and provides guidance on mitigating hazards in construction work.

The subsequent sections encompass crucial aspects such as understanding the workplace of an Electrical Worker, identifying tools and materials, and acquiring skills related to insulated conductors, anchors, and fasteners. "Applied Codeology" equips students with the ability to efficiently navigate the National Electrical Code, while "Direct Current Theory" delves into the essential electrical theory for working with DC circuits, emphasizing proficiency in algebra. The curriculum culminates with "Construction Drawings," a vital skill for Electrical Workers involving the interpretation of blueprints in various formats, including 2D and 3D drawings. Ideal for motivated individuals aspiring to become electricians. The course requires independent task management for completing lessons, reinforcing the importance of staying on track during class periods and/or completing work outside of class.



## Work-Based Learning (WBL)

## COOPERATIVE WORK EXPERIENCE/ WORK-BASED LEARNING (17999)

**Grades:** 11, 12

**Instructor:** Kathrein

Provides students with a regularly scheduled, supervised employment opportunity related to Trade and Industrial Occupations to develop and improve work skills. The employment must be preceded by, or concurrent with, classroom instruction related to the work experience, consistent with the student's occupational goals, and related to the Trade and Industrial Education program area. There shall be a training agreement among all partners regarding the work experience (school, employer, student, and parents/guardians) outlining the expectations of each party. The instructor shall also develop a specific training plan with the employer for each student placed. The training plan shall include provisions for assessing student progress and on-site visits by the instructor during the student's placement. NOTE: Students must be at least 16 years old and may be paid a wage by the employer.

# **GREAT WESTERN NETWORK (GWN)**

## ***GWN ADMINISTRATION***

### **Bill Strasser**

GWN Director

Office: 701-226-2541

Bill Strasser@k12.nd.us

### **Amy Johnson**

WesternND CTC Powerschool Registrar and Marketing Coordinator

701-641-0569

amy.a.johnson@k12.nd.us

### **Laura Fiedler**

Business Manager

Turtle Lake-Mercer School

701-448-2365

laura.fiedler@k12.nd.us

## ***GWN TEACHERS***

### **Spanish**

Sandy Meidinger

Christie Anderson

Nicole Neumiller

### **German**

Martina Dvorak

### **Law and Accounting**

Jessica Hoff

### **Anatomy**

Karen Gordon

### **Art**

Allison Muncaster

Amanda Schlieman

### **American Sign Language**

Jolene Hafner

### **Developmental English** (Credit Recovery 9-12)

Christie Anderson

### **Social Studies**

Brian Grove

**Additions or changes may be made based on enrollments received.**



# General Information

## **Scheduling Procedure for 2025-26 School Year for ITV classes (hybrid ITV & full ITV):**

**Step 1:** (preliminary advertising of classes on GWN web site) : Take a look at the draft schedule on the GWN web site at this link : [www.gwn.k12.nd.us](http://www.gwn.k12.nd.us)

Determine the courses you would like to receive. (If you would like to have one of your teachers SEND a class, contact [bill.strasser@k12.nd.us](mailto:bill.strasser@k12.nd.us))

Once your school has registered its students on the registration website: <https://registration.cractc.org/login>, the ITV requests will be updated on the GWN draft schedule and recorded on the Western Dakota database. Please be cognizant of the starting & ending bell times for ITV classes when registering students. Students that come to class more than 10 minutes late or leave more than 10 minutes before class is done have a much more difficult time succeeding. (even though streaming of missed class time is available, they don't always take advantage of that resource)

**Step 2:** (Deadlines) The Western Dakota Registrar will be sending out the deadlines for having your students registrar. These deadlines will be used to determine whether or not a class has enough enrollment to offer it or if it needs to be canceled or combined.

## **Dual Credit Scheduling: Scheduling Procedure for 2025-26 School Year for ITV College classes (dual credit) from Bismarck State College (BSC) and Dakota College in Bottineau (DCB)**

Registration for ITV college dual credit classes that your students are interested in should be done directly to their college distance learning representative (see below) and not to the Western Dakota registrar, Amy. Once the students have registered, they will appear on the GWN Draft worksheet. If there are ITV classrooms in your building that you specifically want used for these classes, please email them to [bill.strasser@k12.nd.us](mailto:bill.strasser@k12.nd.us)

**Bismarck State College correspondence** — [ashley.m.mattson@bismarckstate.edu](mailto:ashley.m.mattson@bismarckstate.edu)

**Dakota College at Bottineau correspondence** - - - [stacy.allard@dakotacollege.edu](mailto:stacy.allard@dakotacollege.edu)

**Exclusive Point to Point Scheduling:** With teacher shortages throughout North Dakota, there are situations in which schools prefer to work beyond the scope of the GWN traditional ITV classroom setting and provided schedule. Schools may want to work directly with another school or with a former teacher that they have convinced to teach from their home (or a different school) exclusively to their students. This can be done in an existing ITV room or an available traditional classroom that will become "ITV temporarily configured". These classes do not fall under any GWN-Western Dakota registration guidelines. This type of class is between the two entities (teacher-school and/or school-school) and all financial and registration matters are handled amongst one another. The involvement of GWN is strictly setting up the endpoints (teachers room/laptop and remote site room) to accommodate the class so that it can operate as an ITV class independently. Please contact [bill.strasser@k12.nd.us](mailto:bill.strasser@k12.nd.us) if this is something that you would like to establish for the upcoming year.

# Great Western Network Courses

## ACCOUNTING I (14010)

Grade: 9 - 12                      1 Credit                      Full Year

Students in Accounting I will learn the fundamentals of accounting principles that include terminology, accounting cycle, basic concepts, financial statements, roles of accountants, and ethics in accounting. Simulation packets are often integrated into the course.

## AMERICAN SIGN LANGUAGE (ASL I - 06315, ASL II - 06316, ASL III - 06317, ASL IV - 06318)

Grade: 9 - 12                      1 Credit                      Full Year

Designed to introduce students to American Sign Language and culture. Learners in level I would operate in the Novice Low Performance Indicators of the North Dakota Indigenous and World language Standards. Learners typically will be comfortable functioning within the Novice Mid Performance Indicators in Communication by the end of the course.

## ANATOMY (13021)

Grade: 9 - 12                      1 Credit                      Full Year

Anatomy presents an in-depth study of the human body and biological system. Students study such topics as anatomical terminology, cells, and tissues and typically explore functional systems, such as skeletal, muscular, circulatory, respiratory, digestive, reproductive, and nervous systems.

## ART (ART I - 02020, ART II - 02021, ART III - 02022, ART IV - 02029)

Grade: 9 - 12                      1 Credit                      Full Year

Art focuses on drawing and painting. In keeping with this attention on two-dimensional work, students typically work with several media (such as pen-and-ink, pencil, chalk, watercolor, tempera, oils, acrylics, and so on). Still, some courses may focus on only one medium.

## **DEVELOPMENTAL ENGLISH (05011) (ENGLISH CREDIT RECOVERY)**

**Grade: 9 - 12**

**1 Credit**

**Full Year**

Developmental Reading/Writing allows students to focus on reading and writing skills. Assistance is targeted to students' particular weaknesses and is designed to bring students' reading comprehension and writing skills up to the desired level or to develop strategies to read and write more efficiently.

## **GERMAN (GERMAN I - 06291, GERMAN II - 06292, GERMAN III - 06293, GERMAN IV - 06294)**

**Grade: 9 - 12**

**1 Credit**

**Full Year**

German I introduces students to the German language and culture. Learners in level I operate in the Novice Low-Performance Indicators of the North Dakota Indigenous and World Language Standards. Learners typically will be comfortable functioning within the Novice Mid Performance Indicators within the Communication goal by the end of the course.

## **LAW (14090)**

**Grade: 9 - 12**

**1 Credit**

**Full Year**

Students in Business Law will be introduced to the fundamental background of the development and enforcement of laws, the difference between criminal and civil law, and our present court system and how it works. Topics to be discussed include laws concerning contracts, sales, consumers, property, computers, family, environment, wills and trusts, and bankruptcy.

## **SPANISH (SPANISH I - 06211, SPANISH II - 06212, SPANISH III - 06213, SPANISH IV - 06214)**

**Grade: 9 - 12**

**1 Credit**

**Full Year**

Spanish I introduces students to the Spanish language and culture. Learners in level I operate in the Novice Low-Performance Indicators of the North Dakota Indigenous and World Language Standards. Learners typically will be comfortable functioning within the Novice Mid Performance Indicators within the Communication goal by the end of the course.

**All available ITV courses can be seen on the “Draft Schedule “ link at [www.gwn.k12.nd.us](http://www.gwn.k12.nd.us)**