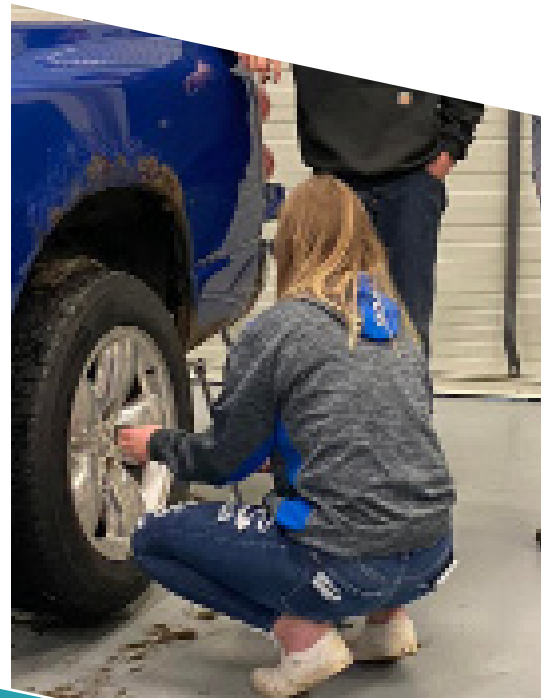


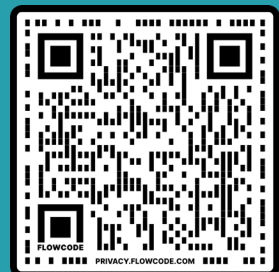


GREAT  
WESTERN  
NETWORK

GNWACTC  
GREAT NORTHWEST AREA  
CAREER AND TECHNICAL CENTER



# 23-24 COURSE CATALOG AND PROGRAM INFORMATION



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**PLEASE NOTE:** **ALL** registrations from each of the listed distance providers (CRACTC, GNWACTC, GWN IT, and RACTC) should be completed **IN FULL** using the Western Dakota registration form found at: <https://cractc.org/admin-info/> or contact Amy Johnson for a copy of the form.

**Please send completed registration forms to Amy Johnson, Western Dakota Registrar, at [amy.a.johnson@k12.nd.us](mailto:amy.a.johnson@k12.nd.us) by the listed due date in May 2023.** 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 TOMORROW'S EXPERIENCES

### CRACTC/CREA ADMINISTRATION

**Dale Hoerauf**

CTE Director CRACTC  
& Bismarck Public Schools  
Office: 701-323-4341  
Dale\_Hoerauf@bismarckschools.org

**Lyle Krueger**

Assistant CTE Director  
Office: 701-751-4041, ext. 116  
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Lyle.krueger@k12.nd.us

**Connie Grause**

CTE Secretary  
Office: 701-323-4340 ext. 0  
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Connie\_Grause@bismarckschools.org

**Amy Johnson**

WesternND CTC Powerschool Registrar  
and Marketing Coordinator  
701-641-0569  
amy.a.johnson@k12.nd.us

**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

**Marketing:**

Michelle Hoff

**Information Technology:**

Jason Horner

**Health Science Careers:**

Joelean Lowman  
Blaine Steine  
Lorie McCarthy  
Heather Frey  
Jessica Schafer  
Jessie Markovic

**Family and Consumer Science:**

Kayla Koth

**Graphic Arts:**

Kristy Horner  
Amanda Anderson

**STEM - Tech. & Engineering:**

Tim Meyer  
Brandon Lemer

## 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

Registration forms and a copy of this guide are located on the CREA web page, [www.cractc.org](http://www.cractc.org). The registration form asks for basic student information that we need to enter into the CRACTC registration summary. Indicate the selected course name, course term and type along with the name, gender, and email address 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: home address and primary phone number, race, ethnicity, and the names of the student's parents. 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 21st, 2023**

### **Lock-in date - May 5, 2023**

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 member schools:

- \$250 per semester course      - \$500 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. CRACTC Instructors will assist in the enrollment process. 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. **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 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 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>



128 Soo Line Drive, Suite 102  
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)



128 Soo Line Drive, Suite 102  
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.

# AGRICULTURE

## **MECHANICS POWER SYSTEMS (01045)**

**Grade: 10-12    0.5 Credit    Fall or 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)**

**Grade: 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)**

**Grade: 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)

**Grade: 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)

**Grade: 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.

## NEW! UNMANNED AIRCRAFT SYSTEMS (DRONES) (17184)

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

***Prerequisite: Aviation I***

The Unmanned Aircraft Systems course will teach students a basic understanding of recreational and commercial unmanned aircraft operations and prepares them for their Part 107 Remote Pilot Certification. They will identify the responsibility and authority of being a remote Pilot In Command, discuss rules of UAS operation, understand how UAS operate in airspace defined within the National Airspace System. Identify special-use airspace where UAS usage may be prohibited. Understand weather and how it affects flight of UAS. Understand general loading and performance data, airport operations. When students complete this course, they will have a general understanding and knowledge of the operation and uses of UAS as they pertain to the world of Aviation along with industry applications.



# FAMILY AND CONSUMER SCIENCE

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

**Grade: 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)**

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

For a student who is looking forward to being on his/ her own, taking this course will help you avoid some common problems. Finding and keeping a job you enjoy, handling your money wisely, securing housing, choosing a roommate, making healthy food decisions, and maintaining your personal possessions are topics covered in this class.

## **CHILD DEVELOPMENT (09026)**

**Grade: 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)**

**Grade: 10 – 12      0.5 Credit      Fall Semester      Online+Learning Days**

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)**

**Grade: 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. Students may care for a “RealCare” baby for a period of 2-4 days.

## **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).



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

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



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)

**\*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)

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

This course will introduce students to the skills needed in graphic design. Students will be exposed to photography, scanning, the elements and principles of design, effective thumb-nailing and typography. This course will address how artwork and photographic images can be used in commercial design. Students will create a digital portfolio for their artwork and they will be introduced to the following Adobe Creative Cloud Software: InDesign, Photoshop and Illustrator. Units will be based on the Print Ed competencies and the ND Graphic Communications Education Content Standards for introduction to Graphic Communications and Advertising Design.

## GRAPHIC DESIGN AND PHOTOGRAPHY II (17073)

**Grade: 11, 12   1 Credit   Full Year**

**Online + hands-on component**

**Prerequisite: Graphic Design and Photography I**

This course will build on the skills needed in graphic design and introduce students to potential careers, college and training opportunities for graphic designers. They will receive more advanced training in the following Adobe Creative Cloud Software: InDesign, Photoshop and Illustrator. They will continue to refine and develop their digital portfolio. The students will create artwork and photographic images that can be used as logos, artwork for t-shirts and other promotional materials. Units will be based on the Print Ed competencies and the ND Graphic Communications Education Content Standards for introduction to Graphic Communications and Advertising Design.



# HEALTH SCIENCE CAREERS

## HEALTH SCIENCE I (07033)

Grade: 10 - 12   1 Credit   Full Year   Online or ITV 2nd period – 9:25 + 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.**

## ADVANCED MEDICAL CAREERS (07035)

Grade: 11, 12   1 Credit   Full Year

Online + hands-on component

**Prerequisite: Medical Careers**

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)

Grade: 10 - 12   0.5 Credit   Fall or 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.

## EMERGENCY MEDICAL RESPONDERS (07045)

Grade: 11, 12   1 Credit   Full Year   Online + hands-on



## component

**Prerequisite: Medical Careers I including First Aid & CPR/AED Certification is required.**

This introductory course prepares students to respond to a wide range of emergencies such as heart attacks, auto accidents and diabetic problems. The units of instruction include, EMS systems, workforce safety, medical, legal and ethical issues, communications and documentation, the human body, airway management, patient assessment, medical emergencies, trauma, special patient populations and EMS operations. On completion of the EMR course students will be better prepared to work with local EMT's to complete requirements for state EMR testing. *Students will not be completing clinical ride-along's in ambulances with EMT squads as a requirement in this course. Students who are 16yrs old or older, and interested in taking the EMR state exam, will need to coordinate with local EMT squads in your community or region to complete the required clinical hours to meet the requirements to take that exam.*



## CERTIFIED NURSING ASSISTANT (07032)

**Grade: 10 - 12    0.5 Credit    Fall Semester    Online**

**Prerequisite: Medical Careers I including First Aid & CPR/AED Certification is required.**

This Certified Nursing Assistant Training program offers classroom instruction and the necessary skills practice to those preparing for employment as a certified nursing assistant in a skilled nursing facility, acute care or home health care. This course does not require supervised clinical practice hours, but will provide necessary curriculum and supervised skills training to challenge the state CNA board exam provided by the North Dakota Board of Nursing to become a certified CNA. *Assistance will be provided for interested students in coordinating with local healthcare facilities for clinical experiences if desired; not required to complete this course.*



# INFORMATION TECHNOLOGY

## INTRODUCTION TO INFORMATION TECHNOLOGY (27101)

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

This exploratory level course provides an exposure to careers and issues in Information Technology. Units prepare students for the industry recognized “Internet and Computing Core Certification” (IC3). This globally recognized certification provides students with the foundation of knowledge needed to excel in fields that involve computers and the Internet. The IC3 Global Standard 3 reflects the most relevant skills for school and business today including: Computing Fundamentals, Key Applications, and Living Online.

## IT ESSENTIALS – PC HARDWARE & OPERATING SYSTEMS (27219)

**Grade: 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 presents exposure to computer hardware and operating systems. Students learn how hardware and software components work as well as suggested best practices in maintenance and safety issues. Through hands-on activities and labs, students learn how to physically take apart, assemble, and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course prepares students for Comp TIA’s “A+” certification and/or Comp TIA’s “IT Fundamentals” certification exams.



## CYBERSECURITY (27280)

**Grade: 10 - 12    0.5 - 1 Credit    Fall/Spring/Full Year    Online + hands-on component**

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. **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. **Dual credit is available through BSC – FOR SPRING SEMESTER ONLY. Must be in 10th Grade to enroll in dual credit courses.**

## NETWORKING FUNDAMENTALS (27266)

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

This course teaches the basics of networking. It covers how network devices work together, network addressing and services, how to build a home network and design basic security, the basics of configuring Cisco devices, as well as testing and troubleshooting network problems.

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

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

This course is designed as an introduction to programming and programming languages such as Python, Java, JavaScript and C++ commonly used in IT careers in industry today. This course will provide students who have no or very little programming knowledge and experience a solid foundation that could be used as a preparation for more advanced programming courses. If you have little or no experience in coding or programming, but have some interest in it, this is the perfect starting course for you!

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

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

This course introduces basic video game development using an introductory, web-based coding program called Scratch. Students will build basic coding or computer science skills and a fundamental understanding of game programming. Learners will build beginning pieces of introductory level video games by engaging in the overall design process, controls, event-driven programming, and debugging of a program. This course is designed for beginners with little to no experience in programming and is strongly recommended as a second semester course after Intro to Programming and before Video Game Design.



## **CODING WITH JAVA (27125)**

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

This course will provide students with a solid base for understanding the main concepts of programming languages. Students will be introduced to the JAVA programming language and complete projects utilizing programming concepts, variables, constants, decision structures and looping structures.

## **CODING WITH PYTHON – (27123)**

**Grade: 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 is an online application-based course in computer programming using Python language; the fastest growing computer language in the world today. The students will develop good problem solving and programming skills while performing several hands-on labs and assignments including gaming. Topics covered include; procedures, mathematical and business functions, arrays and structures, color, sound, and graphics, creating classes, using files, sorting and searching.

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

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

**Prerequisite – Intro to Video Game Design**

This course is a continuation of the content and skills learned in Intro to Video Game Design. The course utilizes a blended classroom approach. The content is fully web-based, with student's writing and running code on-line with teachers utilizing other tools and resources such as on-line videoconferencing to give focused 1-on-1 attention to students. Each unit of the course is broken down into lessons consisting of various resources, example programs to explore, and written programming exercises, adding up to over 100 hours of hands-on video game programming practice in total.



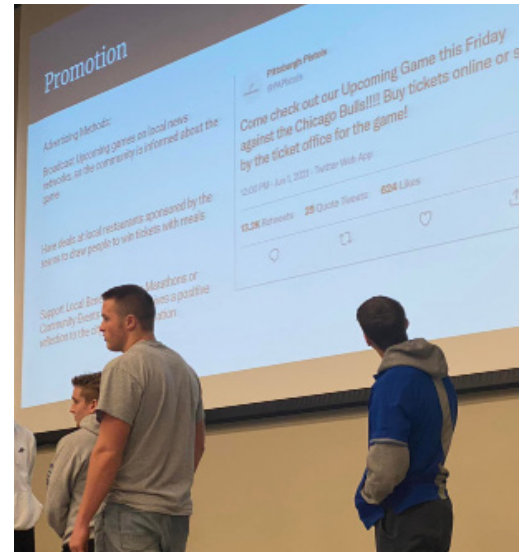
# MARKETING

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

## MARKETING (04210)

**Grade: 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)

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



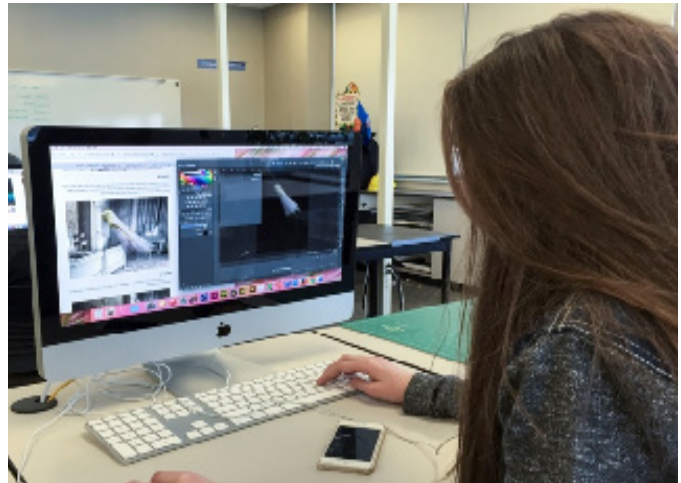
This course introduces students to marketing occupations in the area of sports and entertainment. Take a look at the exciting and dynamic field of sports and entertainment marketing. One of the largest industries in the world, sport marketing provides a unique way of looking at the business world. This 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 (10610) or \*\*Science credit (13150).*

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

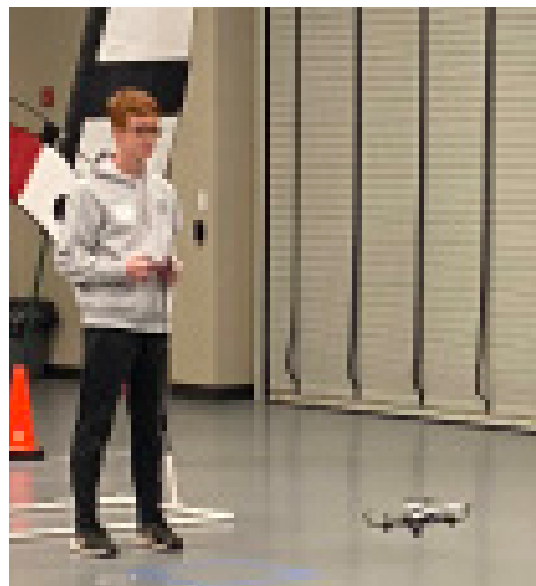
This is a project-based course in which students use Science, Technology, Engineering and Math to solve real world problems. Students will design projects such as bridges, assistive-reach devices, parachutes, etc. Students will use common, everyday materials to design prototypes of products that help people in the real world. STEM focuses on the basics of the Engineering Design Process. STEM careers will also be explored. There are no textbooks, quizzes, or tests. All grading will be based on the effort in the creation of a product, participation in discussion, and use of the engineering design process. \*Schools will be required to purchase applicable course materials (approximately \$15 or less per student).

## STEM SEMINAR II

*This course can be coded as Tech Ed credit (10610), \*\*Science credit (13150).*

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

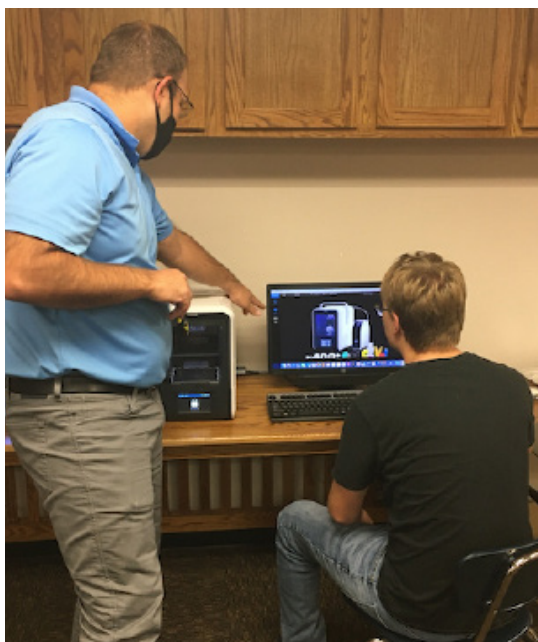
Students will explore concepts such as energy, power, and agricultural engineering. STEM careers will also be explored. There are no textbooks, quizzes, or tests. All grading will be based on the effort in the creation of a product, participation in discussion, and use of the engineering design process. \*Schools will be required to purchase applicable course materials (approximately \$15 or less per student).



## FOUNDATIONS OF ENGINEERING & TECHNOLOGY (10094)

**Grades: 9 - 12    0.5 Credit    Fall Semester    Online + hands-on component**  
**Prerequisite: STEM SEMINAR I or II**

Would you prefer to learn by doing? Do you like to build things? In this class, students will complete design challenges while researching better solutions, designing 3D models and actual models, testing and evaluating products. Some possible hand's-on projects include developing and designing a wind turbine, solar car, CO2 dragster, a mousetrap car, and a glider. This course consists of two separate learning units, each nine weeks in length: Energy and Power Technologies and Transportation Technologies. STEM careers and safety will also be explored. \*Schools will 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**

In this class, students will complete design challenges while researching better solutions, designing 3D models and actual models, testing and evaluating products. Some possible hand's-on projects include developing and designing a bridge, a survival shelter, a prosthetic arm, a robot and a rocket. This course consists of two separate learning units, each nine weeks in length: Manufacturing Technologies and Construction Technologies. STEM careers and safety will also be explored. \*Schools will 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.

**EXCITING CHANGES COMING TO**

**GNWACTC**

**GREAT NORTHWEST AREA  
CAREER AND TECHNICAL CENTER**

The **GNWACTC** is restructuring into the  
**BAKKEN AREA SKILLS CENTER (BASC)**  
and  
**WILLISTON BASIN CAREER & TECHNICAL CENTER (WBCTC)**

**Look for updates via email for additional classes.**



Learning that works  
for North Dakota

<b>GNWACTC ADMINISTRATION</b>
-------------------------------

**Kim Murphy**  
GNWACTC Director  
Office: 701-651-7808  
kim.murphy@k12.nd.us

**Amy Johnson**  
WesternND CTC Powerschool Registrar  
and Marketing Coordinator  
701-641-0569  
amy.a.johnson@k12.nd.us

## General Information

### Registration lock-in Date:

**May 5, 2023:** After this time, substitutions and additions can be made but cancellations/drops will be charged the course enrollment student fee.

Enrollment Cost: \$400 per semester course - \$800 per full year course.

### 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. 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 EDUCATION

## **INTRODUCTION TO AGRICULTURE (01011)**

**Grade: 9 - 12   0.5 or 1 Credit   Fall or Spring Semester/ Full Year   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!



## **AGRICULTURE PROCESSING (01068)**

**Grade: 10 - 12   0.5 Credit   Fall Semester   Online-  
(hands-on days)**

This course is designed to introduce students in the processing of agricultural products. The course will include the processing of food, fiber, and material product processing for the global economy will be emphasized. Personal communication skills, human relation skills, leadership development skills, and supervised agricultural experiences will be emphasized. Dual credit is available through Williston State College requiring hands-on days. (Utilizing your local school lab and/or our Mobile Meat Lab).

## **FARM AND RANCH MANAGEMENT (01032)**

**Grade: 10 - 12   0.5 Credit   Spring Semester   Online**

Are you interested in learning how to run a business in our states #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, CDL, farm equipment maintenance, and livestock & crop production.

# HEALTH SCIENCE

## **NURSING ASSISTANT (07032)**

**Grade: 11 - 12   0.5 Credit   Fall or Spring Semester   Online + full days of hands-on practical learning in Williston or Watford City.   Class Cap: 12**

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. This program includes supervised practical training and clinical practice of skills necessary to work in a long term care facility. Skills would include but are not limited to learning to taking vitals signs, bathing, feeding, and transferring residents in the facility. Students will be prepared to challenge the state CNA board exam to acquire state certification. *There will be 3 full 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.*

## **INTRO TO HEALTH CAREERS (037080)**

**Grade: 9 - 12   0.5 Credit   Fall or 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.

## **HEALTH SCIENCE I (07033)**

**Grade: 10 - 12   1 Credit   Full Year   ITV - 1st Period**

The 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 CPR/First Aid, & a basic introduction to a variety of health careers will be provided in this course. Certifications obtained will include Heartsaver CPR/First Aid & Stop the Bleed.

## **INTRODUCTION TO SPORTS MEDICINE (07034)**

**Grade: 10 - 12   1 Credit   Full Year   ITV - 2nd Period**

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/CPR/AED. Certifications obtained will include Heartsaver CPR/First Aid & a variety of certifications through National Federation of State High School Associations (NFHS).

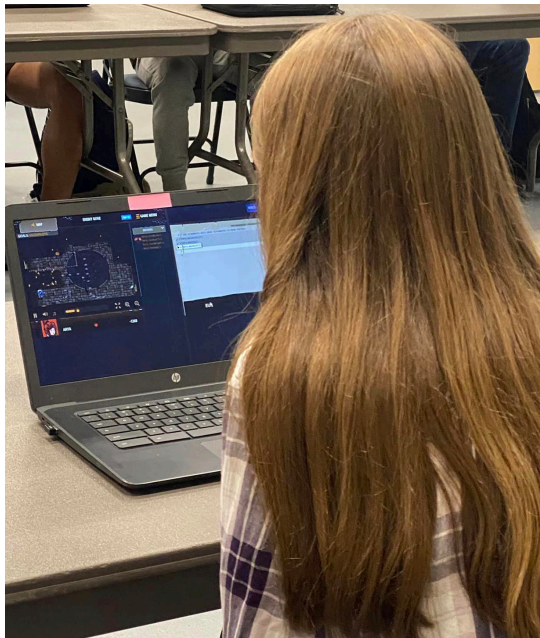
## **MEDICAL TERMINOLOGY (07036)**

**Grade: 10 - 12   0.5 Credit   Fall or 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.

***Dual Credit is available through Williston State College.***

# 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.

## **Programming Essentials - Visual Basic (27122)**

**Grade: 9 - 12    0.5 Credit    Fall or Spring Semester    Online**

Basic programming concepts are presented, which are transferable to other programming languages. Foundational concepts and fundamentals of computer programming, including logic, design, coding, structure, and controls, are addressed. Careers in programming are explored, and students are provided opportunities to increase their communication, teamwork, and critical thinking skills. Business projects show how programming skills are used in the business world.

## **CYBERSECURITY (27280)**

**Grade: 10 - 12    0.5 Credit    Fall or 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.



## 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

Additions or changes may be made  
based on enrollments received.

Visit our website,

<http://ractc.org/>, for updates.

### **Governing Board**

Lucas Greff (Mott-Regent) - President  
Carrie Zackman (Beach) - Vice Pres.  
Terry Johnson (Belfield) - Director  
Brent Bautz (New England) - Director  
Kelli Schollmayer (Killdeer) - Director  
Ashlie Palmer (Hebron) - Director  
Brent Seaks (Dickinson) - Director  
Patrick Kilzer (Hettinger) - Director  
Peter Remboldt (Glen Ullin) - Director  
Jodi Hoff (Richardton-Taylor) - Director  
Kelly Pierce (Scranton) - Director  
Barb Meduna (South Heart) - Director

### **RACTC Teachers**

#### **Health Sciences:**

Bobbi Schneider

Sara Rhode

Joseph Champa

Colin Hulm

Jaclyn Guillaume

Courtney Sadowsky

#### **Agriculture:**

Riston Zielke

Misti Steeke

#### **Business Education**

Shelly Christensen

#### **Career Development**

Leanne Benes - Beach

Trista Dakken - Hebron

Trista Fisher - Dickinson

Kari Mayer - Mott/Regent

Krista Olson - Hettinger

Magan Paulson - Glen Ullin

Kristi Voth - New England

Emily Henson - Belfield

Bobbie Olson - South Heart



## General Information

### Registration lock-in Date:

**May 5, 2023:** After this time, substitutions and additions can be made but cancellations/drops will be charged the course enrollment student fee.

### 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:

Dual Credit will be available through Dickinson State University for Medical Terminology.

### 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). This set fee increases by \$500 for every 10 students. Each member school will be assessed an additional \$500 for every student enrolled. Nonmember schools will be assessed \$700 for each student enrolled in RACTC classes. A \$3500.00 membership will be charged for each school participating in the RACTC Emerging Technology Consortium.

### Grade Scale:

Grade scales are set by individual instructors and/or member schools.



# AGRICULTURE EDUCATION

## **EQUINE SCIENCE (01062)**

**Grade: 10 - 12   0.5 Credit   Spring Semester   ITV - 7th Period**

**Instructor: Misty Steeke**

This course is designed to provide students with opportunities to learn, reinforce, apply, and transfer their knowledge and skills of animal systems (including, but are not limited to, horses, donkeys, and mules.) The student will analyze the selection of horses, how to provide proper nutrition using accepted protocols and processes, describe the anatomy and physiology of horses, and select equipment and facilities which demonstrate methods of handling and breeding horses safely. The student will compare and contrast issues affecting the industry and describe issues concerning biotechnology related to the equine field. The student will also learn the employability characteristics of a successful employee in the field of equine science by participating in laboratory-based, or other supervised, agricultural experiences, and learn from the challenging hands-on approach in equine activities.

## **LIVESTOCK PRODUCTION (01061)**

**Grade: 10 - 12   1 Credit   Full Year   ITV-4th Period**

**Instructor: Riston Zielke**

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 reproduction. 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.

## **AGRICULTURE SALES AND SERVICE/MARKETING (01034)**

**Grade: 10 - 12   0.5 Credit   Fall Semester   ITV - 3rd Period**

**Instructor: Misty Steeke**

To provide students with skills necessary for entry into employment or furthering education in agriculture sales and service. The course deals with business organizations, business structures, job responsibilities, job applications, and interviewing, human relations, marketing, selling, displaying, using business machines, business accounting, and management skills. Learning activities are varied with classroom, laboratory, and field experiences. Leadership development and supervised agricultural experience programs are an integral part of this course.

## **INTRODUCTION TO AGRICULTURE (01011)**

**Grade: 10 - 12    0.5 or 1 Credit    Fall or Spring Semester/Full Year    Online**

**Instructor: Misty Steeke**

www.mycaert.com will be the source used to provide information to the students through the use of Moodle. This would be an online class only with Videos and lectures posted by the teacher.

This applied course is designed to introduce students to agriculture, its applications, and leadership development as the core foundation of the Ag Education program. Individual units will familiarize the student with: basic mechanical theory and skills –principles of evaluation and selection of beef, swine, sheep, horse, and dairy animals; soil and plant relationships that affect the production of food and fiber. Topics may include: soils, irrigation, land judging, plants, crop and weed identification, range management, horticulture, nursery, diseases, insects, and chemicals. Students are introduced to agricultural sciences with emphasis on technical skills, entrepreneurship, and occupational opportunities. Units may also include agricultural construction, food and fiber science, supervised agricultural experiences, and leadership development. Emphasis is on problem solving and scientific reasoning applied to real world problems integrating knowledge from the life and earth science.

## **SMALL ANIMAL CARE (01066)**

**Grade: 10 - 12    0.5 Credit    Fall Semester    ITV - 7th Period**

**Instructor: Misty Steeke**

This course is designed to teach students about the management of small animals, which may include, but are not limited to, small mammals, amphibians, reptiles, avian, dogs, and cats. The student will understand the importance of responsible small animal ownership by explaining the domestication and use of small animals, the influence small animals and the small animal industry on society, and the hazards associated with working in the small animal industry (including transmittance of disease and handling of dangerous chemicals). The student will evaluate current topics in animal rights and animal welfare, thus understanding the care and management requirements for a variety of small animals and be able to discuss the physical characteristics for each species studied; list the breeds or types of each species; discuss the habitat, housing, and equipment needs for each; compare and contrast nutritional requirements; describe and practice common methods of handling; and use available laboratory equipment.

## **CASE PRINCIPLES OF AGRICULTURAL SCIENCE-ANIMAL (01081)**

**Grade: 9 - 12    1 Credit    Spring Semester**

**Instructor: Misty 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.

# BUSINESS EDUCATION

## ACCOUNTING I (14010)

**Grade: 9 - 12   0.5 Credit   Fall Semester   Online**

**Instructor: Shelly Christensen**

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)

**Grade: 9 - 12   0.5 Credit   Spring Semester   Online**

**Instructor: Shelly Christensen**

**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)

**Grade: 10 - 12   0.5 Credit   Fall Semester   Online**

**Instructor: Shelly Christensen**

**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)

**Grade: 10 - 12   0.5 Credit   Spring Semester   Online**

**Instructor: Shelly Christensen**

**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.

## MULTI MEDIA (14099)

**Grade: 9 - 12   0.5 Credit   Spring Semester   Online**

**Instructor: Shelly Christensen**

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.

## WEB DESIGN (14022)

**Grade: 9 - 12   0.5 Credit   Fall Semester   Online**

**Instructor: Shelly Christensen**

Students will be introduced to a variety of ways to create and maintain web pages. Course topics will focus on overall production with an emphasis on design elements involving layout, navigation, and interactivity. Understanding of 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 additional media inputs within a website.



# HEALTH SCIENCE

## HEALTH SCIENCE I (07033)

**Grade: 9 - 11   1 Credit   Fall or Spring Semester   ITV/Online/In-Person**

**Instructor: Schneider (Year-1 Credit), Sadowsky, Guillaume, Rhode   Class cap: 25**

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)

**Grade: 11 - 12   1 Credit   Fall or Spring Semester   Face-to-face**

**Instructor: Sadowsky, Guillaume, Rhode   Class cap: 12**

**This course is for Dickinson Public School's students only.**

This course has been developed to provide students interests in the medical field an in-depth study of a career of their choice which best suits their capabilities and interests. 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 choices. 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. Students will also obtain their American Heart Association Basic Life Support (BLS) certification, HIPAA certification, and create their own career portfolios. **Prerequisite: C or better in Health Science I. Student will need to have a mode of transportation to attend required job shadowing at various locations in the community.**

## MEDICAL TERMINOLOGY (07036)

**Grade: 11, 12   1 Credit   Fall or Spring Semester   ITV/Online/In-Person**

**Instructor: Schneider (Grade: 10-12) Year, Guillaume, Rhode, Sadowsky   Class Cap: 25**

**Dual credit through Dickinson State University**

This class is designed to introduce students to the health information technology field. Students will learn prefixes, suffixes, and root words for medical terms. This will include meanings, spellings and pronunciations. Emphasis is on building a working medical vocabulary based on body systems. Anatomy and physiology of major organs, pathological conditions, laboratory studies, clinical procedures and abbreviations are studied for each body system. **Prerequisite: C or better in most recent science course.**

## INTRODUCTION TO SPORTS MEDICINE (07034)

**Grade: 11, 12   1 Credit   Fall or Spring Semester   ITV/Online/In-Person**

**Instructors: Schneider (Year-1 Credit), Sadowsky, Hulm, Champa, Guillaume, Rhode  
Class Cap 20**

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 and athletic trainer or other professionals in sports medicine during this course.

## EMERGENCY MEDICAL RESPONDER (07045)

Grade: 10 - 12    0.5 - 1 Credit    Fall or Spring Semester    Online/ITV - 6th Period  
Instructor: Rhode (In-Person Only), Schneider (0.5 credit)    Class cap: 15

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



## EMERGENCY MEDICAL TECHNICIAN (07045)

Grade: 12    2 Credit    Full Year    In-Person only  
Instructor: Rhode    Class cap: 10

This course prepares the student to respond to a wide range of emergencies such as heart attacks, auto accidents, and other various medical and trauma-related problems. Students participate in extensive hands-on practical sessions using modern pre-hospital care equipment under the instruction of emergency care professionals. Upon completion of the course, students will have extensive knowledge and experience to aid them in choosing a healthcare career and be eligible for North Dakota state EMT licensure. It will be encouraged that the student takes the National Registry EMT written and psychomotor test upon successful completion of the course. Ride-along time with local ambulance services is a requirement of the course for licensure and certification. ***It is recommended that students taking the EMT course turn 18 prior to graduation to complete ride-along time and to be eligible to take the certification test. Prerequisite: Student must have taken and passed one of the following Health Science classes with a C or better- Health Science 1, Emergency Medical Responder (EMR), or Medical Terminology. Student will need to have a mode of transportation to attend required ride-along time at an ambulance service.***

## CERTIFIED NURSE AIDE (07032)

Grade: 10 - 12    1 credit    Fall or Spring Semester    In-Person  
Instructor: Guillaume    Class Cap: 10

This course provides classroom instruction to those interested in becoming a Certified Nurse Aide. 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. Certification is not issued upon completion of the class, but students will have the opportunity to take the state board exam to acquire certification after this course. **Prerequisite: C or better in most recent science course.**

## HEALTH OCCUPATION EXPERIENCE PROGRAM (07999)

Grade: 11 - 12    0.5 credit per semester (max of 4 credits allowed)    Full Year

Instructor: Schneider, Rhode, Guillaume, Sadowsky    Class Cap: Variable

Online, In-Person, and on-the-job training

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 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 that not all students will be accepted. Content areas: Dental Assisting, Pharmacy Tech., Direct Support Staff (Able, Inc.), Certified Nursing Assistant, and any other health related areas of interest may be accommodated for internships if placement is possible. (Example: PT, OT, Speech Therapy, Lab, Vet. Assistant, etc.) Student will need to have a mode of transportation to attend required job shadowing sites based on their course specialty.*

*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 are met and job shadowing hours (300 hours total) 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: The student is hired as an employee at a nursing home. Student 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.*

## FIREFIGHTER I (07999)

Grade: 11 - 12    1 credit    Full Year (A/B)

In-Person

Instructor: S. Rhode, J. Rhode, Geiger, Hofer

Class Cap: 20

Dual credit through Dickinson State University

This entry-level firefighter training course focuses on an intense hands-on approach to firefighting, promoting skill competency and an understanding of the fire ground. Recruits will learn the fundamental skills of becoming a firefighter. Upon successfully completing this course, students will be eligible to take the Firefighter I certification test. **Students must be at least 16 years old to take this class. Student will need to have a mode of transportation to attend required Wednesday evening skill classes at the fire station.**

## FIREFIGHTER 2 (07999)

Grade: 11 - 12    1 credit    Fall Semester (A/B)    In-Person

Instructor: Rhode, Flynn, Presnell

Class Cap: 20

Dual credit through Dickinson State University

This course provides students with the knowledge and skills necessary to operate under general supervision during firefighting operations. This course focuses on an intense hands-on approach to advanced firefighting skills. Students will experience advanced lectures to promote critical thinking, practical skills evaluations to promote competency and live fire scenarios to promote teamwork and coordinated fire attack. Prerequisite: Hazardous Materials Operations and Firefighter I. Student will need to have a mode of transportation to attend required Wednesday evening skill classes at the fire station.

# BUILDING TRADES

**Instructor: Catherine Dschamps**

## **OPERATING ENGINEERS PATHWAY**

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.

### **CAR022: CONSTRUCTION EXPLORATIONS**

**Fall/Spring Semester Online**

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.

### **MFG010: BASIC GRADE & CONSTRUCTION MATH**

**Fall/Spring Semester Online**

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.

### **MFG201: ALV BASIC CONSTRUCTION EQUIPMENT FUNDAMENTALS**

**Fall/Spring Semester Online**

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.

### **MFG202: ALV BASIC MAINTENANCE OF MOBILE EQUIPMENT**

**Fall/Spring Semester Online**

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.

Next Step: Apprenticeship



# 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

## GWN Teachers

### Spanish

Sandy Meidinger

Christie Anderson

Nicole Neumiller

### German

Martina Dvorak

### German/Spanish/English

Sharon Klein

### Radio and TV Broadcasting

Jay Schmaltz

### Law and Accounting

Jessica Hoff

### Family and Consumer Science

Melora Buchholz

### Anatomy

Karen Gordon

### Art

Courtney Halverson

Allison Muncaster

Amanda Schlieman

### American Sign Language

Jolene Hafner

## *Scheduling Procedure for 2023-24 School Year for ITV classes (hybrid ITV & full ITV) Western Dakota CTE and GWN classes*

**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 either receive and/or the courses that your school would be willing to send. Email these requests to both the Western Dakota registrar [amy.a.johnson@k12.nd.us](mailto:amy.a.johnson@k12.nd.us) and the GWN ITV director [bill.strasser@k12.nd.us](mailto:bill.strasser@k12.nd.us).

(Be specific; example – “We could teach Algebra II at 1:32 pm CST” or “would like to receive Spanish I at 10:32 am CST-possibly 2 students”) These requests will be placed on the GWN draft schedule by Bill. Amy will also take note of your preliminary request and at a later time send you the Western Dakota registration sheet that requires the names and other information about the students enrolling.

continued on next page...

**Step 2:** (working draft window) : The draft schedule is updated on the GWN web site by the GWN director showing changes requested by principals and/or counselors. All entries will be in black color until Amy has gotten back from you the Western Dakota registration sheet. (which at that point will be changed to **lime green** on the GWN web page) (Helpful Hint – start the process early. Report changes or requests as often as you like, this helps others know what your school wants to teach or receive and others can adjust accordingly. It also will help in the hiring/placement of ITV staff) Also, if you have an itv room preference, please indicate that on your email to Bill.

**Step 3:** (Deadlines) April 21, 2023 is the day that GWN and the Western Dakota CTE schools will look at the “registered” students (**lime green**) to determine whether or not a class has enough enrollment to offer it or if it needs to be cancelled or combined. The lock-in date is Friday, May 5th, 2023. This is the date in which the contracts for our teachers are established based on the student numbers from your schools. (Be aware that you may be charged for the tuition costs of students that don’t show up for class next fall as our budget for teacher contracts are based on your students registration commitment).

### ***Scheduling Procedure for 2023-24 School Year for Western Dakota CTE **online** classes (non itv)***

Registration for all online courses is done through the Western Dakota registrar, Amy Johnson. ([amy.a.johnson@k12.nd.us](mailto:amy.a.johnson@k12.nd.us)) Enrollment information will be forthcoming from her once the Western Dakota catalog is complete in early February.

### ***Scheduling Procedure for 2023-24 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 and not to the Western Dakota registrar, Amy. If you believe that you have students interested in a certain college instructor/section that is listed on the GWN web site, please email [bill.strasser@k12.nd.us](mailto:bill.strasser@k12.nd.us) with that request and I will place it on the GWN draft schedule to determine enrollment limits.

Bismarck State College correspondence --- [jessie.meckle@bismarckstate.edu](mailto:jessie.meckle@bismarckstate.edu)

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

# Great Western Network Courses

## ACCOUNTING I (14010)

Grade: 9 - 12   1 Credit   Full Year

## AMERICAN SIGN LANGUAGE

Grade: 9 - 12   1 Credit   Full Year

- ASL I - 06315
- ASL II - 06316
- ASL III - 06317
- ASL IV - 06318

## ANATOMY (13021)

Grade: 9 - 12   1 Credit   Full Year

## ART

Grade: 9 - 12   1 Credit   Full Year

- Art I - 02020
- Art II - 02021
- Art III - 02022
- Art IV - 02029

## DEVELOPMENTAL ENGLISH (05011)

Grade: 9 - 12   1 Credit   Full Year

## FAMILY AND CONSUMER SCIENCE

Grade: 9 - 12   0.5 Credit

- Independent Living - 09025 - Fall Semester
- Family Living - 09132 - Spring Semester

## GERMAN

Grade: 9 - 12   1 Credit   Full Year

- German I - 06291
- German II - 06292
- German III - 06293
- German IV - 06294

## LAW (14090)

Grade: 9 - 12   1 Credit   Full Year

- Criminal, Personal & Business

## MATH

Grade: 9 - 12   1 Credit   Full Year

- Trigonometry - 11160
- Pre-Calculus - 11181

## RADIO AND TV BROADCASTING

Grade: 9 - 12   1 Credit   Full Year

- Radio I - 17140
- Radio II - 17140

## SPANISH

Grade: 9 - 12   1 Credit   Full Year

- Spanish I - 06211
- Spanish II - 06212
- Spanish III - 06213
- Spanish IV - 06214