

## 2023-2024 GFACTC Course Offerings

*All Courses Are Eligible for Use to Meet the ND Academic & CTE Scholarship Requirements (12<sup>th</sup> Graders) & ND Scholarship (9<sup>th</sup>- 11<sup>th</sup> Graders)*

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## AGRICULTURE EDUCATION

### **01011 – Introduction to Agriculture**

**Grades 10-12**

**1 Credit**

*Delivery – Online*

This applied course is designed to introduce students to agriculture, its applications, and leadership development as the core foundation of the Agriculture Education program. Individual units will familiarize the student with: basic mechanical theory and skills – emphasis will be placed on safety and proper use of tools and equipment; 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.

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## AUTOMOTIVES

### **17032 – Automotive Technology I**

**Grades 10-12**

**1 Credit**

*Delivery – Face-to-Face*

*Location: Red River HS*

*Period: 10:50 – 11:40 a.m.*

To begin preparation for employment as an ASE certified auto technicians. This sequential course will include topics in vehicle engine, power transmission, steering, brakes, and electrical systems.

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### **17037 – Automotive Technology II**

**Grades 11-12**

**2 Credits**

*Prerequisite – Automotive I*

*Delivery – Face-to-Face*

*Location: Red River HS*

*Period: 8:00 – 9:50 a.m.*

Continued preparation in vehicle engine, power transmission, steering, brakes and electrical systems will be provided. Included in training is the use of diagnostic and testing equipment and tools used in the repair process.

## AVIATION

### 17812 – Aviation Technology I

Grades 10-12

1 Credit

*Delivery – Online*

This course covers fundamentals of flight, flight operations, aviation weather, performance, and navigation. The course also allows students to explore careers pathways within Aviation including pilot, air traffic control, flight dispatching, and airport management.

### 17814 – Unmanned Aircraft Systems (UAS)

Grades 10-12

1/2 Credit



*Delivery – Online*

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. 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.

## BUSINESS EDUCATION

### 14022 – Financial Literacy

Grades 10-12

1/2 Credit

*Delivery – Online*

*\* Course is only offered in the fall semester*

This course reviews basic personal finance topics, goes more in-depth on advanced personal finance topics and encourages students to take control of their finances. Advanced topics include: exploring post-secondary options, paying for post-secondary options, taxes, investing and IRAs/Roths, insurance, budgeting, credit, and financial pitfalls many adults face. This course provides real-life scenarios that allow students the opportunity to interact with and learn from topics before having to actually apply them in financial situations.

### 14022 – Web Design

Grades 10-12

1/2 Credit

*Delivery – Online*

*\* Course is only offered in the spring semester*

Introduces students to a variety of ways to create and maintain web pages. Students will focus on the overall process with particular emphasis on design elements involving layout, navigation, and interactivity. The basics of web design programming and software will be learned along with the additional media inputs within a website.

## ENGINEERING



### 10511 – Introduction to Engineering Design

**Grades 10-12**

**1 Credit**

*Delivery – Online*

*\* Students will be issued the necessary laptop & software for the course*

This course emphasizes the development of a design. Students use 3-D computer software to produce, analyze and evaluate models of project solutions. They study the design concepts of form and function, and then use state-of-the-art technology to translate conceptual designs into reproducible products. This is a Project Lead the Way (PLTW) course and only instructors with this training may use this number and description.

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## GRAPHIC DESIGN

### 17072 – Introduction to Graphic Arts

**Grades 10-12**

**1 Credit**

*Delivery – Online*

*\* Students will be issued the necessary software for the course*

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. 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.

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### 17072 – Introduction to Graphic Arts

**Grades 11-12**

**1 Credit**

*Delivery – Online*

*\* Students will be issued the necessary software for the course*

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. 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.

## INFORMATION TECHNOLOGY

### 27219 – Computer Hardware & Operating Systems

**Grades 10-12**

**1 Credit**

**Dual Credit  
 Program**

*Delivery – Online*

*Start Date – Aug 29*



This course presents an in-depth exposure to computer hardware and operating systems. Students will learn the functions of hardware and software components as well as best practices within computer maintenance and troubleshooting issues. Class activities include assembling a computer, installing operating systems and software, configuring networking issues. This course is designed to prepare students for industry certification opportunities.

### 27122 – Programming Essentials I

**Grades 10-12**

**½ Credit**

*Delivery – Online*

*\* Course is only offered in the Fall semester*

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.

### 27122 – Programming Essentials II

**Grades 10-12**

**½ Credit**

**Dual Credit  
 Program**

*Prerequisite – Programming Essentials I*

*Delivery – Online*

*\* Course is only offered in the Spring semester*



Advanced 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. *\* This course is available for Dual Credit through Lake Region State College. Students may take the class without enrolling for Dual Credit, but those interested in college credit must meet the Dual Credit requirements.*

### 27265 – Networking Essentials

**Grades 10-12**

**½ Credit**

**Dual Credit  
 Program**

*Delivery – Online*

*\* Course is only offered in the Fall semester*



Networking Essentials covers basic networking concepts within the context of home and small business networks. Through interactive, multimedia content, lab activities, and multi-industry case studies, this course introduces students to networking careers and prepares them for further study. Major units include, planning and installing real network equipment, troubleshooting network connectivity, and configuring basic IP and sharing services.

## 27280 – Cybersecurity Essentials

Grades 10-12

½ Credit



*Prerequisite – Networking Essentials*

*Delivery – Online*

*\* Course is only offered in the Spring semester*

The Cybersecurity Essentials course develops basic understanding of information and network security. The course introduces students to characteristics of cybercrime, security principles, technologies, and procedures to defend networks. Major units include, implementing procedures to protect data confidentiality and integrity, configuring security controls on networks, servers and workstations, understanding security principles and policies that comply with cyber security laws.

## MEDICAL CAREERS

### 07033 – Health Careers I

Grades 10-12

1 Credit



*Delivery – Online*

The Health Careers course is designed to assist students interested in the medical field in determining an occupation that will best suit their capabilities and interests. The program uses a competency-based curriculum that is fundamental to a variety of careers in the health care industry.

### 07036 – Medical Terminology

Grades 10-12

½ Credit

*Delivery – Online*

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.

### 07036DC – Dual Credit Medical Terminology

Grades 11-12

½ Credit



*Delivery – Online*

*\* Students Must Meet Dual Credit Requirements*

More advanced than the introductory Medical Terminology, in this course, students will learn terminology associated with body systems, diseases and disorders of those systems. Students will further develop the skills necessary for decoding of commonly used medical terms including the meaning of medical suffixes, prefixes, word roots, and medical abbreviations. Students enrolled in the course will have the option of registering for dual credit through Lake Region State College (LRSC).

**07044 – Medical Services Foundation (CPR/First Aid)**

**Grades 10-12**

**½ Credit**



*Delivery – Online*

The Emergency Medical Services Foundations course places a special emphasis on the knowledge and skills needed in medical emergencies. Topics typically include clearing airway obstructions, controlling bleeding, bandaging, methods for lifting and transporting injured persons, simple spinal immobilization, infection control, stabilizing fractures, and responding to cardiac arrest. The courses may also cover the legal and ethical responsibilities involved in dealing with medical emergencies. These courses may better prepare students to obtain certification such as: Emergency Medical Response (EMR), CPR, First Aid.

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**07032 - Nurse Assistant**

**Grades 10-12**

**½ Credit**



*Delivery – Online/Onsite Labs    \* Students must be 16 years old at start of class*

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 with a local health care facility. Students successfully completing the course will be prepared to challenge the state CNA board exam to acquire state certification.