Hillsboro High School

Course Descriptions CTE

Agricultural

Introduction to Agriculture:

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. Topics may include: soils, irrigation, land judging, plants, crop and weed identification, range management, horticulture, nursery, diseases, insects, and chemicals.

Foundations of Agriculture:

This applied course is designed to enhance student's perception of 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. Topics may include: soils, irrigation, land judging, plants, crop and weed identification, range management, horticulture, nursery, diseases, insects, and chemicals.

Equine Science:

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.

Veterinary Science:

This course is designed to prepare students for careers in the field of animal science by introducing them to veterinary practices as they relate to both large and small animal species. The student will participate in laboratory and field investigations and demonstrate safety by using critical thinking, scientific reasoning, and problem solving to make informed decisions. They will research and describe the history of veterinary medicine, current topics, the importance of animals in society, and the professional ethics and laws that relate to veterinary medicine. The student will learn to explain the human-animal bond and describe the legal aspects of animal welfare. The student will identify anatomical structures and systems of animals and correct terminology while exploring animal management as it relates to animal identification, animal characteristics, and behavioral temperament (i.e. normal behavior compared to sick.) The student will evaluate animal diseases and identifies internal and external parasites and can evaluate an animal's health during a clinical examination while safely operating and maintaining equipment used in veterinary science. The student will also learn to determine nutritional requirements and the importance of nutrition in maintaining a healthy animal. The student will thereby be conscious of procedures, skills, and objectives that are included in the job description of an animal care assistant.

World Agricultural Science and Technology:

A course designed to introduce students to global agriculture. This course also includes agricultural career development, leadership, communications, and personal finance.

Agriculture III:

This course develops agricultural skills necessary for employment, entrepreneurship, or further education in agriculture and agricultural occupations. Units may include: crop and livestock production, farm business management, agribusiness, horticulture, natural resources, agricultural mechanics, aquaculture, and water management. Leadership development and supervised agricultural experiences will also be emphasized.

Agriculture IV:

This course develops agricultural skills necessary for employment, entrepreneurship, or further education in agriculture and agricultural occupations. Units may include: crop and livestock production, farm business management, agribusiness, horticulture, natural resources, agricultural mechanics, aquaculture, and water management. Leadership development and supervised agricultural experiences will also be emphasized. This course can be a continuation of Agriculture III or can be offered in alternating years with Agriculture III.

Cooperative Work Experience:

This course provides students with a regularly scheduled, supervised employment opportunity related to agriculture occupations in order to develop and improve work skills. The employment must be preceded by, or concurrent with, classroom instruction related to the work experience, consistent with the students' occupational goals, and related to the Agriculture Education program area. There shall be a training agreement among all partners to the work experience (school, employer, student, and parents/guardians) outlining the expectations of each party. The instructor shall also develop a specific training plan with the employer 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.

Business Courses

Accounting I:

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

Accounting II:

Students in Accounting II 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.

Web Design:

Students in Web Design will be introduced to a variety of ways to create and maintain web pages. Course topics will focus on overall production processes 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 the additional media inputs within a website (e.g. video, animation, sound, scrolling marquees, forms, contacts, and other additional components).

Business Computer Applications:

Students in Business Computer Applications will continue to develop skills in various computer applications and using various input and output devices in order to gather information, design, present, and evaluate projects. The course will include ethical uses of computers and information. The course would be helpful for all students.

Spreadsheets:

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

Database:

Students in Database will use database software to organize and automate file handling. These files will be used to analyze business trends and solve problems. Students will create tables, queries, forms, reports, templates, and web pages to understand the functionality of a database.

Business Law:

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

Financial Literacy:

Students in Financial Literacy will study the impact of financial choices on personal and occupational goals and future earnings potential. Real world topics include checking accounts, budgeting, saving for large purchases, using credit cards, figuring interest and fees, being a responsible consumer, earning power, learning about taxes and paycheck withholding, college costs, mortgages, retirement savings, and investments. This course will provide a foundational understanding for making informed personal financial decisions.

Entrepreneurship:

To provide opportunity for students to explore self-employment benefits versus risks and to develop specific competence in starting a small business. It covers the characteristics of an entrepreneur, economics and the nature of small business, feasibility study Business Plan Development, type of ownership, lo management, promotion, legal issues, business protection, assistance.

Management:

Students in Management I are introduced to the field of management and organizational theory. Topics include: leadership, motivation, planning, teamwork, and goal setting. The course will develop a mastery of theory and research findings about organizations and people within the organizations.

Cooperative Work Experience:

Provides students with a regularly scheduled, supervised employment opportunity related to Business and Office Technology Occupations in order to develop and improve work skills. The employment must be preceded by, or concurrent with, classroom instruction related to the work experience, consistent with the student's occupational goals, and related to the Business and Office Technology program area. There shall be a training agreement among all partners to the work experience (school, employer, student, and parents/guardians) outlining the expectations of each party. The instructor shall also develop a specific training plan with the employer 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.

Family and Consumer Science

Family and Consumer Science I:

To introduce students to basic concepts in all areas of Family and Consumer Sciences. This course may include: availability of personal resources**; organization of resources to provide for needs; making consumer decisions; creation of personal living environment; developing satisfying interpersonal relationships; understanding and caring for children; meeting personal nutritional needs; managing food resources; maintaining good health; clothing and textile selection, care, and construction; contributing to satisfying and family life; career orientation and occupational information; work readiness skills; leadership development.

Family and Consumer Science II:

To provide students with experiences in all areas of Family and Consumer Sciences at a more advanced level than in Family and Consumer Sciences I. The course may include: self-development; multiple roles of individuals in contemporary society; finances and economic interdependence**; housing to meet lifestyle and family goals; lifestyle and parenting decisions; family meal choices at home and away; influences of nutrition on health and disease; personal and family clothing needs; societal and environmental impacts of personal decisions; career information, exploration and planning; work readiness skills; leadership development.

Family and Consumer Science III:

To provide specialized experiences that will enable advanced students to plan and prepare for present and future personal and family needs. Course content should expand on the content areas from Family and Consumer Sciences II and should be determined by the needs and interests of the students enrolled.

Independent Living:

To prepare students for responsibilities involved in becoming self-sufficient young adults preparing for life away from the parental home during or immediately following high school. Course content may include: living independently; supporting oneself; making financial decisions**; making choices about housing, nutrition and food, clothing, transportation, health and wellness; using time to achieve personal goals; finding balance in life; current issues that affect personal decisions; societal and environmental impacts of personal decisions; sources of support and assistance in the community; leadership development.

Nutrition and Food Preparation I:

This introductory course will prepare students to make critical decisions about food that will contribute to their health and well-being of themselves, their families and their communities. The course may include basic food selection and storage, accurate and appropriate measuring, basic cooking terms and techniques, and working safely in the kitchen. Students will learn how to read food labels and how to apply them to their eating habits and their dietary needs. Lab experiences will focus on preparing and tasting a variety of foods.

Cultures and Cuisine:

This course will explore cultures in various parts of the world in relation to ethnic foods, food supply, preparation methods and traditions. Current, historical and futurist issues related to food patterns and the global society will be an integral component of the course which may include such topics as famine, contamination, religious rites and practices, celebrations and cultural cuisine. Labs will combine the familiar with the exotic to create foods of the world.

Individual Family and Consumer Sciences Studies:

To provide students in Family and Consumer Sciences additional opportunity to expand their knowledge and explore the fields of home and family life, related careers, leadership, citizenship, and personal development on an individual basis. Instructor and student will cooperatively develop specific goals and learning activities to achieve these goals.

Health Sciences

Nurse Assistant:

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 as required by the North Dakota Board of Nursing. A certificate is issued upon completion of the class. Students also can take the state CNA board exam to acquire state certification.

Medical Terminology:

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 studies for each body system. The student will also learn medical terminology as it relates to pathology, diagnostic, surgical, clinical and laboratory procedures, and common abbreviations and acronyms by body systems.

Computer Sciences

Computer Science:

The main focus of this course is microcomputer operation system functions and commands. Students learn about operating system concepts, disk and file formats, disk and file management, and control and processing programs. Students learn to use utilities to sort, merge, copy, backup, and recover date. They also perform installation and execution of business applications software.