

Hillsboro High School

Course Descriptions 2019-2020

ART DEPARTMENT

Course Title: Art I & II

Grade Level: 9-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: None

Maximum Number of Students: 15

Description of the Course: Art I & II are meant to be an introductory experience into formal art learning. Students will learn about design principles, color theory and composition through a variety of hands on creative experiences. Concepts in art history, cultures and contemporary society will also be explored. Your experiences in this class will be reflected in a sketchbook/journal. This course incorporates the basic knowledge of drawing, painting, design, crafts practical art skills and art history. Various drawing techniques are explored as well as those inherent in the following media which are used in assigned projects: tempera, watercolor, pen and ink, charcoal, printmaking, clay and mixed media. (This is a different course covering different material than Art III & IV)

Requirements: Students will be expected to complete all assignments (attend presentations, practice exercises, planning procedures, artwork, critique sessions) along with occasional out of class research for resource material/subject matter.

Field Trips: One-day trip to Fargo or Grand Forks to visit art museums and galleries.

Special Materials Needed: Pencils and a sketchbook

Fees: None

Course Title: Painting

Grade Level: 11-12

Credit: 1

Semester Offered: 1 and 2

Prerequisites: None

Maximum Number of Students: 15

Description of the Course: Painting focuses on painting. In keeping with this attention on two dimensional work, students typically work with several media (such as watercolor, tempera, oils, acrylics, and so on), but some courses may focus on only one medium.

Requirements: Students will be expected to complete all assignments (attend presentations, practice exercises, planning procedures, artwork, critique sessions) along with occasional out of class research for resource material/subject matter.

Field Trips: One-day trip to Fargo or Grand Forks to visit art museums and galleries.

BUSINESS DEPARTMENT

Course Title: Accounting I

Grade Level: 10-12

Credit: 1

Semester offered: 1 & 2

Prerequisites: BCAP I-II

Maximum Number of Students: 25

Description of Course: To introduce students to accounting principles and provide them with detailed accounting knowledge. The course includes handling of accounting transactions, preparation of financial statements, both manually and using automated accounting software to develop their techniques.

Requirements: Students must have taken the BCAP I-II course so that they are able to do automated accounting problems on the computer.

Special Materials Needed: calculators, pencils, ruler

Course Title: Entrepreneurship

Grade Level: 10-12

Credit: 1/2

Semester Offered: 1

Prerequisites:

Maximum Number of Students: 20

Description of Course: To provide students with an introduction to entrepreneurship business opportunities and requirements as well as related career information and self-assessment opportunities. Covers entrepreneurship importance and concepts, characteristics of different types of business organizations and opportunities, entrepreneurial career examples, individual career assessment and planning, and entrepreneurial projects and simulations.

Course Title: Entrepreneur Design II

Grade Level: 10-12

Credit: 1/2

Semester Offered: 2

Prerequisites: Entrepreneurship

Maximum Number of Students: 20

Description of Course: Entrepreneurial Design is centered around graphic design creating visual concepts, using computer software or by hand, to communicate ideas that inspire, inform, and captivate consumers. They develop the overall layout and production design for various applications such as advertisements, brochures, magazines, and corporate reports and will incorporate this to self-created businesses. Students will also be able to apply these skills to real life community based projects.

Course Title: Business Management

Grade Level: 11-12

Credit: ½

Semester Offered: 2

Prerequisites: None

Maximum Number of Students: 20

Description of Course: 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.

Requirements:

Field Trips:

Special Materials Needed:

Fees: none

Course Title: Business Math

Grade Level: 10-12

Credit: ½

Semester Offered: 1

Prerequisites: None

Maximum Number of Students: 20

Description of Course: This course is designed to improve computational skills and apply them to business situations. Areas of study include mathematical problems dealing with interest, percentages, installment buying, insurance, depreciation, markup and markdown, payroll, and taxes.

Course Title: Business Computer Applications I

Grade Level: 9-12

Credit: 1/2

Semester Offered: First Semester

Prerequisites: 7 Humanities

Maximum Number of Students: 20

Description of Course: Students will be introduced to the operation of a microcomputer. Microcomputer operating system functions and commands are the main focus of this course. Students learn about operating system concepts, disk and file formats, disk and file management, and control and processing programs. Students learn to use Microsoft Word and the Microsoft Office suite.

Course Title: Business Computer Applications II

Grade Level: 9-12

Credit: 1/2

Semester Offered: 1

Prerequisites: *BCAP I*

Maximum Number of Students: 20

Description of Course: Students will continue the development of skills and knowledge developed in Business Computer Applications I through study and application of programs used in business. Using the operating system of a microcomputer to organize and automate file handling, use database software to solve business problems; analyze business trends and solve problems using spreadsheet software; to integrate information stored in all software formats; and develop critical communication skills necessary for successful career development. A main focus will be expressed using Microsoft Excel, PowerPoint, and Access.

Course Title: Business Computer Applications III

Grade Level: 10-12

Credit: 1/2

Semester Offered: 2

Prerequisites: *Business Computer Applications I and II*

Maximum Number of Students: 20

Description of Course: Advanced business applications utilizing different software packages, or integrated software packages, telecommunication packages, graphics, and other advanced computer applications. Students will use electronic mail and Internet access. Students will focus on using Microsoft Publisher and Ulead PhotoImpact for daily assessment.

Course Title: Business Computer Applications IV

Grade Level: 10-12

Credit: 1/2

Semester Offered: 2

Prerequisites: *Business Computer Applications I-III*

Maximum Number of Students: 20

Description of Course: Students will broaden their microcomputer output resources by using new and advanced software and concepts. Students will create and edit web pages and websites, create individual pieces of webpage design, create and edit video, create and edit photos. Students will be introduced to Macromedia Dreamweaver, Macromedia Fireworks, Macromedia Flash, Pinnacle Studios, and swish.

Course Title: Financial Literacy

Grade Level: 9-12

Credit: 1/2

Semester Offered: 1

Prerequisites: None

Maximum Number of Students: 20

Description of Course: To provide students with business related consumer knowledge. The economic welfare of the consumer and consumer groups in everyday life including money management, purchasing, and utilization of goods and services, banking, investments, credit, evaluation of consumer research and product testing, and the role of the consumer in the economy.

Course Title: Introduction to Business

Grade Level: 9-12

Credit: 1/2

Semester Offered: 2

Prerequisites: None

Maximum Number of Students: 20

Description of Course: To provide students with an understanding of the economic environment in which we all live. An introductory study of business, how business meets consumer needs and wants, economic principles, desirable business practices, and awareness of career opportunities in the field of business.

Course Title: Introduction to Computer Science-TEALS

Grade Level: 9-12

Credit: 1/2

Semester Offered: 1 & 2

Prerequisites: None

Maximum Number of Students: 20

Description of Course: This class is based on The Beauty and Joy of Computing at UC Berkeley. This is a broad-based introduction class that uses the Snap! Visual programming language and Python to introduce students to computational thinking. Every unit culminates in a comprehensive project and roughly 75% of student time is spent building projects and practicing the skills they are learning. This class uses a co-teach method where instructors are both in the classroom and remotely connected.

Course Title: Cooperative Work Experience

Grade Level: 9-12

Credit: ½ - 1

Semester Offered: Full Year or 1 & 2

Prerequisites: None

Maximum Number of Students: 20

Description of Course: 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.

NOTE: Students must be at least 16 years old and

ENGLISH DEPARTMENT

Course Title: English 9

Grade Level: 9 - 12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: None

Maximum Number of Students: 25

Description of Course: English 9 is intended as a basic study of the English language and all its components. Students will study various works of literature with primary focus on literary elements and learning how literature relates to life. For composition study, students will learn about expository and essay writing, and simply the process of writing itself. Communication studies will include: 1.) Analysis of the parts of speech, 2.) Sentence structure, and 3.) The study of methods to enhance clear communication in writing and speaking. More specifically, Freshman English students will be reading a number of works by various authors such as William Shakespeare, Charles Dickens, Lois Lowry, and Jack London. The study of these works will include application of skills studied in composition and communication assignments.

Course Title: English 10

Grade Level: 10 - 12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: English 9

Maximum Number of Students: 25

Description of Course: English 10 will be broken down into three major categories which include: grammar, composition, and literature. In terms of grammar, students will begin the year with a review of study skills. The class will focus on the parts of speech, sentence structure, word usage, punctuation, capitalization, and writing skills. Sophomores will write papers which revolve around research, comparison and contrast, and persuasion. A number of smaller papers will also be written throughout the year. The six traits of writing will be a main focus in the classroom.

The classroom reading series is entitled *Elements of Literature*. We will read several texts from the book throughout the school year and cover genres such as: short stories, nonfiction, poetry, drama, legend, and the novel. Specific novels that will be examined are *Adventures of Huckleberry Finn*, *Of Mice and Men*, and *A Separate Peace*. The use of literary devices will be studied through Shakespeare's *Julius Caesar*.

Course Title: English 11

Grade Level: 11 - 12

Credit: 1

Semester Offered: 1 & 2 (Full Year)

Prerequisites: English 9, 10

Maximum Number of Students: 25

Description of Course: In English 11, students will continue with the study of the English language and all its components. At this level, the primary focus of literary study is on the "ideal and ideas expressed in American literature." Composition work will focus on the elements of audience, description, purpose, and the essay in order to prepare students for critical analysis writing. Communication studies will include a study of the parts of speech, sentence structure, and enhancing overall writing and speaking skills.

Course Title: English 12

Grade Level: 12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: English 11

Maximum Number of Students: 25

Description of Course: The classroom book *Elements of Literature* for English 12 focuses on British and world literature. Classic and modern texts will be read and discussed throughout the course. Special focus will be placed on: *Beowulf*, *Canterbury Tales*, *Gulliver's Travels*, and assorted Shakespeare readings including *Macbeth*. Additionally, students will read *Oedipus the King* and *1984* to study novels.

Grammar and writing conventions will be reviewed at the beginning of the year. Special focus will also be placed on frequently misspelled and/or misused words will be examined.

A large focus of English 12 revolves around several formal essays. Students will write papers on literary criticism, research-based informative and persuasive papers, and create a business portfolio.

Course Title: Young Adult Lit.

Grade Level: 11-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: none

Maximum Number of Students: 20

Description of Course: Explore current issues and topics involving young people. Read three contemporary novels, discuss them in terms of connections to self and life, and compare/contrast with movie versions. Novels may include *The Perks of Being a Wallflower*, *Speak*, *The Book Thief*, *The Curious Incident of the Dog in the Night-Time*, *It's Kind of a Funny Story*, and *The Hate U Give*.

Course Title: ACT Prep

Grade Level: 11-12

Credit: 1/2

Semester Offered: 1 & 2

Prerequisites: none

Maximum Number of Students:

Description of Course: Practice English skills to help prepare for the ACT. Areas of emphasis include reading comprehension and speed, specific grammar practice, and timed written responses. Additionally, test taking skills and tips will be provided to assist into other areas of the ACT

FAMILY AND CONSUMER SCIENCES

Course Title: Family and Consumer Sciences I

Grade Level: 9 (also open to grades 10-12 in special circumstances)

Credit: 1

Semester Offered: Year long

Prerequisites: none

Maximum Number of Students: 20 (preferred)

Description of Course: Students in Needle Arts will learn the skills of embroidery, quilting, hardanger embroidery, latch hook, crocheting, braiding, weaving, and beadworking. These are skills that are becoming a lost art. Take Needle Arts to learn skills that will stick with you for a lifetime!

Fees: Small Project Fees

Course Title: Family and Consumer Sciences II

Grade Level: 10-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: none

Maximum Number of Students: 20 (preferred)

Description of Course: This class is almost 100% hands-on learning, where students explore a variety of sewing and design techniques. The course begins with topics such as color schemes, the elements and principles of design, and fabric and fiber types. Students will apply these design basics into a variety of projects that include skills such as hand-stitching, machine stitching, and serging. Students will have the opportunity to create clothing and other textile items, read and apply pattern directions to garment construction, and will become environmentally conscious in their textile choices. Students will also have the opportunity to construct a project of their choice at the end of the year! **Please note:** Students are responsible for purchasing all their own material and supplies for this class.

Fees: Small Project Fees

Course Title: Independent Living

Grade Level: 11-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: none

Maximum Number of Students: 16

Description of Course: Are you prepared to handle all the challenges and responsibilities of adult living? If not, this class is for you! This course is designed to strengthen the connections between the student and life following graduation. Possible topics include identifying the rights and responsibilities of being an adult, exploring college and career options, practicing writing resumes, attending interviews, and other employability skills, creating a budget to manage personal finances, finding and maintaining a vehicle and home, establishing basic food preparation and healthy eating skills, and practicing basic clothing repair and maintenance.

Course Title: Cultures & Cuisine

Grade Level: 10-12

Credit: 1

Semester Offered: 1

Prerequisites: none

Maximum Number of Students: 16

Description of Course: This course focuses on the basics of the food service and hospitality industry. Students will review safety and sanitation procedures, learn intricate knife cuts, practice advanced food preparation techniques, and explore careers in the culinary industry. Additional topics may include regional and ethnic food options, menu planning, mise en place and plating techniques, and much more! Labs are incorporated weekly allowing students to apply what they have learned.

Course Title: Bakery & Pastry

Grade Level: 10-12

Credit: 1

Semester Offered: 2

Prerequisites: none

Maximum Number of Students: 16

Description of Course: Students in Baking and Pastry Arts take on the world of pastry chefs. Baking principles and procedures will be examined and applied through hands-on practice and weekly food labs. Possible cooking units include pastries, pies and tarts, shortened cakes, whipped-cakes, cake decorating, quick breads, yeast breads, and other baked goods of student interest. Students will also explore measuring using weight, calculating baker's percentage, cost analysis of baked goods, and industry standards for commercial baking.

Course Title: FACS 3 – Independent Study

Grade Level: 10-12

Credit: 1

Semester Offered: 2

Prerequisites: FACS I & 2

Maximum Number of Students: 16

Description of Course: Have you take all of the FACS classes that you are interested in already? Consider taking FACS independent study to dig even deeper into your skills on topics that interest you! You will work with the instructor to come up with a plan for the semester and meet goals and deadlines set. Enjoy flexibility in this class tailored to **YOU!**

Please note: Students are responsible for purchasing all their own material and supplies for this class.

Course Title: Relationships in Education

Grade Level: 11-12

Credit: 1 (Dual Credit)

Semester Offered: 1 and 2

Prerequisites:

Maximum Number of students: 5

Description of Course: Are you interested in education or a career working with children? Do you babysit? This course is a great way for you to understand basic fundamentals of what it takes to be an educator. You will learn about classroom management strategies, lesson planning, content standards, designing meaningful activities, and have the opportunity to work in a classroom.

Course Title: Peer Tutoring/ Mentoring

Grade Level: 11-12

Semester Offered: 1 and 2

Prerequisites:

Maximum Number of students: 5

Description of Course: Do you have extra open class periods you are trying to fill? Consider mentoring in an elementary or high school classroom. This is an opportunity to provide assistance to teachers and students within the Hillsboro School District. This is a course for students who are highly motivated and organized.

MATH DEPARTMENT

Course Title: Algebra I

Grade Level: 8-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: none

Maximum Number of Students: 25

Description of Course: Algebra I includes the study of properties and operations of the real number system; evaluating rational algebraic expressions; solving and graphing first degree equations and inequalities; translating word problems into equations; operations with and factoring of polynomials; and solving simple quadratic equations.

Course Title: Geometry

Grade Level: 9-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: Algebra I

Maximum Number of Students: 25

Description of Course: Geometry, emphasizing an abstract, formal approach to the study of geometry, typically includes topics such as properties of plane and solid figures; deductive methods of reasoning and use of logic; geometry as an axiomatic system including the study of postulates, theorems, and formal proofs; concepts of congruence, similarity, parallelism, perpendicularity, and proportion; and rules of angle measurement in triangles.

Course Title: Algebra II

Grade Level: 10-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: Algebra 11031

Maximum Number of Students: 25

Description of Course: Algebra II topics typically include field properties and theorems; set theory; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations; graphing of constant, linear, and quadratic equations; properties of higher degree equations; and operations with rational and irrational exponents. The course may introduce topics in discrete math, elementary probability and statistics; matrices and determinants; and sequences and series.

Course Title: College Algebra (Dual Credit)

Grade Level: 11-12

Credit: HS – ½ ; College – 3

Semester Offered: 2

Prerequisites: Algebra I, Advanced Algebra

Maximum Number of Students: 25

Description of course: Covering topics from both Algebra and Analytic Geometry, this course prepares students for eventual work in calculus. Topics include the study of polynomial, logarithmic, exponential, and rational functions and their graphs; vectors; set theory; Boolean algebra and symbolic logic; mathematical induction; matrix algebra; sequences and series; and limits and continuity; the polar coordinate system; equations and graphs of conic sections; rotations and transformations; and parametric equations.

Fees: \$405 approximately (three college credits)

Course Title: Pre-Calculus

Grade Level: 11-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: Algebra I, Geometry, Advanced Algebra

Maximum Number of Students: 25

Description of course: Pre-calculus combines the study of Trigonometry, Elementary Functions, Analytic Geometry, and Algebra topics as preparation for calculus. Topics typically include the study of complex numbers; polynomial, logarithmic, exponential, rational, right trigonometric, and circular functions, and their relations, inverses and graphs; trigonometric identities and equations; solutions of right and oblique triangles; vectors; the polar coordinate system; conic sections; Boolean algebra and symbolic logic; mathematical induction; matrix algebra; sequences and series; and limits and continuity.

Course Title: Calculus

Grade Level: 11-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: Algebra I, Geometry, Algebra II,

Maximum Number of Students: 25

Description of course: Calculus includes the study of derivatives, differentiation, integration, the definite and indefinite integral, and applications of calculus. Typically, students have previously attained knowledge of pre-calculus topics (some combination of trigonometry, elementary functions, analytic geometry, and algebra)

Course Title: ACT Prep (CREAM)

Grade Level: 11-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: Algebra I, Geometry, Algebra II,

Maximum Number of Students: 25

Description of course: College Learning Lab-Math focuses on preparing the student for collegiate studies, specifically to mathematics. The student will be engaged in educational experiences regarding mathematical methods for solving equations and word problems. The course will refresh students regarding equations, number systems, algebra, geometry, ratio, and analytical reasoning. NOTE: This course code is designed to be used exclusively with the Pearson MyFoundationsLab platform through the CREAM or CLEM programs.

Course Title: Consumer Math

Grade Level: 10-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: None

Maximum Number of Students: 25

Description of course: Consumer Math reinforces general math topics (such as arithmetic using rational numbers, measurement, ratio and proportion, and basic statistics) and applies these skills to consumer problems and situations. Applications typically include budgeting, taxation, credit, banking services, insurance, buying and selling products and services, home and/or car ownership and rental, managing personal income, and investment.

MUSIC DEPARTMENT

Course Title: SH Band

Grade Level: 9-12

Credit: 1/2

Semester Offered: 1st and 2nd

Prerequisites: 2 years of instrumental experience

Maximum Number of Students: 72

Description of Course: This course is designed as mainly a performance based group. Students will be meeting for 25 minutes every day, during the school day. Students will be exposed to several different styles of music during the course of the year. Grading is based on daily participation, conduct, improvement and attendance at band, concerts, or any other performances as required by the instructor. Jazz Band is an extension of the regular Concert Band and is available to interested students through an audition basis.

Requirements: Students are required to have their own instrument or make arrangements with the instructor to use a school owned instrument. Playing in Pep Band is not a requirement of this class. Two or more concerts are performed throughout the year and are a part of your grade.

Solo and ensemble contest is optional, but is strongly suggested for your personal musical group.

Field Trips: Tournaments, and possibly other field trips as needed.

Special Materials Needed: Instrument, accessories (reeds, valve oil, drumsticks, etc.)

Course Title: SH Choir

Grade Level: 9-12

Credit: 1/2

Semester Offered: 1 & 2

Prerequisites: none

Maximum Number of Students: 72

Description of Course: This course is mainly designed as a performance based group. The class meets for 25 minutes every day, during the regular school day. Students will be given the opportunity to learn about their voices, strengthen and exercise their voices, and sing several different styles of music. Grading is based on daily participation, conduct, improvement, and any performances as required by the instructor. Swing Choir is an extension of the Concert Choir and is available to students through an audition basis.

Requirements: An interest in learning to sing properly. Attendance at concerts throughout the year. Solo and ensemble contest is not required, but is strongly encouraged for your personal musical growth, and any other performances deemed necessary by the instructor.

Field Trips: as arranged

Course Title: Individual Supervised Study (Band or Vocal)

Grade Level: 9-12

Credit: .5/1

Semester Offered: 1st and 2nd

Prerequisites: none

Maximum Number of Students: 6

Description of Course: This course is designed for students who have an interest in refining their vocal or instrumental ability on an individual basis. The course will also include some group discussion and lecture. This course will meet on a daily basis for 50 minutes. Grading will be based on daily participation, conduct, and lecture when appropriate.

PHYSICAL EDUCATION

Course Title: Lifetime Fitness and Recreation

Grade Level: 10-12

Credit: 1/2

Semester Offered: 1st and 2nd

Prerequisites: none

Maximum Number of Students: 24

Description of Course: Lifetime Fitness and Recreation will seek to contribute to a balanced life for students through mental, physical, social, and emotional growth. Each student will develop and improve fine and gross motor skills and physical fitness in an organized, sequential program through the medium of physical activity. Further emphasis will be placed upon sportsmanship and the acquisition of skills for leisure time activities. Activities will be chosen from, but not limited to the following: Flag football, Tennis, Horseshoes, Archery, Speedball, Racquetball, Volleyball, Dance/Aerobic Dance, Table Tennis, Shuffleboard, Cross Country Skiing, Ice Skating, Badminton, Swimming, Softball, and Golf.

Course Title: General Physical Education

Grade Level: 9-12

Credit: 1/2

Semester Offered: 1st and 2nd

Prerequisites: none

Maximum Number of Students: 24

Description of Course: Physical Education provides students with knowledge, experience, and an opportunity to develop skills in more than one of the following sports or activities: team sports, individual/dual sports, recreational sports, and fitness/conditioning activities.

SCIENCE DEPARTMENT

Course Title: Biology

Grade Level: 10

Credit: 1

Semester Offered: 1 & 2

Prerequisites: None

Maximum number of Students: 25

Description of Course: Biology is designed to provide information regarding the fundamental concepts of life and life processes. This course includes (but are not restricted to) such topics as cell structure and function, general plant and animal physiology, genetics, and taxonomy.

Course Title: General Biology 150

Grade Level: 11-12

Credit: Dual Credit ½ HS Credit 3 – College Credits

Semester Offered: First

Prerequisites: Biology 10

Maximum Number of Students: 20

Description of Course: This course consists of basic concepts in biology, general chemistry, biochemistry, cellular biology, membrane transport, enzymes, and systems of plant and animal classification, photosynthesis, cellular respiration and cellular reproduction. The course is broadly designed to satisfy the requirements for lecture/laboratory curricula and biological/professional careers.

Fees: If taking for dual credit, fees will be approximately \$540

Course Title: General Biology 151

Grade Level: 11-12

Credit: Dual Credit ½ HS Credit 3 – College Credits

Semester Offered: Second

Prerequisites: Biology 10

Maximum Number of Students: 20

Description of Course: This course consists of basic concepts in biology, general chemistry, biochemistry, cellular biology, membrane transport, enzymes, and systems of plant and animal classification, photosynthesis, cellular respiration and cellular reproduction. The course is

broadly designed to satisfy the requirements for lecture/laboratory curricula and biological/professional careers.

Requirements: Scientific journal summaries, multiple labs to be done in class and one after school lab per semester to meet LRSC lab requirements.

Field Trips: As arranged.

Special Materials Needed: none

Fees: If taking for dual credit, fees will be approximately \$450

Course Title: Environmental Science

Grade Level: 11-12

Credit: 1/2

Semester Offered: 1

Prerequisites: Biology 10

Maximum Number of Students: 20

Description of Course: Environmental Science examines the mutual relationships between organisms and their environment. In studying the interrelationships among plants, animals, and humans, this course usually covers the following subjects: photosynthesis, recycling and regeneration, ecosystems, population and growth studies, pollution, and conservation of natural resources.

Course Title: BioTechnology

Grade Level: 10-12

Credit: 1/2

Semester Offered: 1 & 2

Prerequisites: None

Maximum Number of Students: 20

Description of Course: Students will explore the history of biotechnology, including early attempts at food preservation, the development of antibiotics, and changes to food crops around the world. They will learn about some of the challenges of biotechnology, such as the growth of antibiotic resistant bacteria and questions about the safety of commercially produced genetically modified organisms (GMOs). They will also research new biotechnologies and how they are changing the world we live in.

Course Title: Chemistry

Grade Level: 11-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: Physical Science & Algebra I

Maximum Number of Students: 20

Description of Course: This course will study matter and how it affects our physical world. Areas of importance are: the scientific method, mathematical conversions, atomic structure, chemical bonds, the periodic table, writing chemical equations, ionization, acids & bases, and organic chemistry. Information is given in a lecture type style and through hands on activities in lab.

Course Title: Physical Science

Grade Level: Freshman

Credit: 1

Semester Offered: 1 & 2

Prerequisites: None

Maximum Number of Students: 25

Description of Course: This course focuses on the understanding of the make-up and the forces within our physical world. Areas of focus are: the scientific method, mathematical conversions, chemistry, forces, simple machines, power, and energy.

SOCIAL SCIENCES

Course Title: Civics

Grade Level: 9

Credit: 1

Semester Offered: 1 & 2

Prerequisites: none

Maximum Number of Students: 24

Description of Course: Beginning Principles of Democracy combine a study of the structure of national, state, and local U.S. government. Course content will include contemporary U.S. issues. Students will be informed on the voting process, and how legislation is passed on the national, state and local level. The purpose of this course is to prepare students to perform effectively as informed citizens.

Course Title: US History

Grade Level: 11 - 12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: none

Maximum Number of Students: 24

Description of Course: During the first quarter we will study the origins of government in the United States with special emphasis placed on the study of the constitution. During the second semester, we will study the growth of the United States from the original thirteen colonies, and its growth into a world power. Included will be; Progressivism, World War I, Roaring Twenties, the Depression, World War II, and the Cold War (Korea and Vietnam). We will also cover the civil rights movement and recent issues of the 80's and 90's.

Course Title: Problems of Democracy

Grade Level: 12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: none

Maximum Number of Students: 24

Description of Course: This course will be a combination of American Government and World Affairs. Processes and structures by which citizens of the United States govern themselves at the local, state, and national level. This course will use the current newspapers and the Newsweek magazine to become better aware of issues facing our nation today. Students will also be involved in a mock congressional hearing that deals with the constitution and current issues facing the U.S. Many other projects will be done such as mock trials and simulations.

Course Title: Psychology

Grade Level: 11-12

Credit: 1/2

Semester Offered: 1st

Prerequisites: none

Maximum Number of Students: 30

Description of Course: Psychology introduces students to the study of individual human behavior. Course content typically includes (but is not limited to) an overview of the field of psychology, topics in human growth and development, personality and behavior, and abnormal psychology.

Course Title: Sociology (Dual Credit available)

Grade Level: 11-12

Credit: 1/2

Semester Offered: 2

Prerequisites: none

Maximum Number of Students: 20-25

Description of Course: Sociology introduces students to the study of human behavior in society. This course provides an overview of sociology, generally including (but not limited to) topics such as social institutions and norms, socialization and social change, and the relationships among individuals and groups in society.

Fees: If taking for dual credit, fees will be approximately \$405

Course Title: World History

Grade Level: 10-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: none

Maximum Number of Students: 24

Description of Course: World History provides students with an overview of the history of human society from early civilization to the contemporary period, examining political, economic, social, religious, military, scientific, and cultural developments. World History may include geographical studies, but often these components are not as explicitly taught as geography.

Course Title: Law & Justice in North Dakota

Grade Level: 10-12

Credit: 1/2

Semester Offered: 1

Prerequisites: none

Maximum Number of Students: 24

Description of Course: Law & Justice courses examine the workings of the U.S. criminal and civil justice systems, including providing an understanding of civil and criminal law and the legal process, the structure and procedures of courts, and the role of various legal or judicial agencies. Although this course emphasizes the legal process, it may also cover the history and foundation of U.S. law (the Constitution, statutes, and precedents). Course content may also include contemporary problems in the criminal justice system.

Course Title: Contemporary History

Grade Level: 10-12

Credit: 1/2

Semester Offered: 2

Prerequisites: none

Maximum Number of Students: 24

Description of Course:

VOCATIONAL AGRICULTURE

Course Title: Introduction to Agriculture 01011

Grade Level: 9 - 12

Credit: 1

Semester Offered: 1 & 2

Prerequisites: none

Maximum Number of Students: 25

Description of Course: 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. This applied course introduces students 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. Agricultural mechanics units are designed to develop skills in selection, operation, and maintenance of engines, hydraulics, and agricultural machinery and tractors. Skills in operation and maintenance of equipment, determining a bill of materials, construction techniques, metal fabrication, and joining processes of metals and alloys will be included. Emphasis is on problem solving and scientific reasoning applied to real world problems integrating knowledge from the life and earth sciences. An applied course designed to enhance student's perception of agriculture, its applications, and leadership development. The course will familiarize the student with basic mechanical theory and skills; emphasis will be placed on safety and proper use of tools and equipment. Topics of study generally include leadership, gas and arc welding and cutting, power woodworking tool review from previous year, project time, record keeping, engine fundamentals, engine repair work, other repairs as instructed, SAEP income enterprises, ag. chemicals and weed control, crop selection and sample preparation. If time allows often tool fitting, cold metal, soldering, bill of materials, structures, or others may be addressed.

Course Title: Foundations of Agriculture 01012

Grade Level: 10 - 12

Credit: 1

Semester Offered: 1 & 2

Prerequisites:

Maximum Number of Students: 25

Description of Course: 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. This applied course introduces students 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. Agricultural mechanics units are designed to further develop skills in selection, operation, and maintenance of engines, hydraulics, and agricultural machinery and tractors. Skills in operation and maintenance of equipment, determining a bill of materials, construction techniques, metal fabrication, and joining processes of metals and alloys will be included. Emphasis is on problem solving and scientific reasoning applied to real world problems integrating knowledge from the life and earth sciences. Foundations of Agriculture can be a continuation of Introduction of Agriculture or can be offered in alternating years with Introduction to Agriculture.

Course Title: Vet Science

Grade Level: 10 & 12

Credit: 1/2

Semester Offered: 1

Prerequisites:

Maximum Number of Students: 25

Description of Course: 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.

Course Title: Equine Science

Grade Level: 10 - 12

Credit: 1/2

Semester Offered: 2

Prerequisites:

Maximum Number of Students: 25

Description of Course: 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.

Course Title: Meat Science

Grade Level: 10 - 12

Credit: 1/2

Semester Offered: 1

Prerequisites:

Maximum Number of Students: 25

Description of Course: This course is designed to introduce students to 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.

Course Title: Food Science

Grade Level: 10 - 12

Credit: 1/2

Semester Offered: 2

Prerequisites:

Maximum Number of Students: 25

Description of Course: This course is designed to introduce students to 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.

Requirements:

Course Title: Agricultural III

Grade Level: 10 & 12

Credit: 1

Semester Offered: 1 & 2

Prerequisites:

Maximum Number of Students: 25

Description of Course: 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.

Foreign Language

Course Title: Spanish I

Grade Level: 10-12

Credit: 1

Semester Offered: 1 & 2

Prerequisites:

Maximum Number of Students: Ten

Description of Course: Designed to introduce students to Spanish language and culture, Spanish I emphasizes basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Spanish culture is introduced through the art, literature, customs, and history of Spanish-speaking people.

Course Title: Spanish II

Grade Level: 11 - 12

Credit: 1

Semester Offered: 1 & 2

Prerequisites:

Maximum Number of Students: Ten

Description of Course: Spanish II builds upon skills developed in Spanish I, extending students' ability to understand and express themselves in Spanish and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Spanish-speaking people to deepen their understanding of the culture(s).