

Course Description Handbook



2016-2017

WAUKON HIGH SCHOOL

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Online Courses

There are many courses available online through NICC. To register for these courses students should do the following:

- 1) Check in the Guidance Office for a list of available courses. Course lists are available in the late spring for the fall semester and in the late fall for the spring semester.
- 2) Complete the paperwork required for course registration. This is also available in the Guidance Office.
- 3) Paperwork must be completed by the end of May for a fall course and by the end of December for a spring course.
- 4) Students should handle the registration as soon as possible as many of these courses fill up.

College Courses

*In order to take a college credit class, students must meet the following requirements:

--Be proficient (41%) in Math, Reading and Science on the most recent Iowa Assessment tests

OR

--Received a grade of C- or higher in the most recent high school class that is from the same subject area as the college class

--AND have not failed any classes the previous semester

--AND have at least 85% attendance

*Students must have passed all classes the previous semester in order to take any college classes the following semester.

Juniors and seniors are eligible for enrollment in nonsectarian courses offered at qualified post-secondary institutions if comparable courses are not offered at Waukon High School. The college credit earned in these courses may also be applied toward the local requirements for receipt of a diploma. **Students are responsible for purchasing their own college level textbooks in most classes.**

College courses that are offered through Waukon High School are marked with an * in this booklet.

Requirements for Graduation

Students who have successfully completed the required units of credit, including all the district's required courses, and conducted themselves in a commendable manner shall be eligible to receive a high school diploma. Any exceptions must have the approval of the administration and school board.

Graduation Requirements (1 unit=1 year):

- 4 units English (English 9, English 10, English 11, Elective)
- 3 units Math
- 3 units Science (Physical Science, Biology, Elective)
- 3 units Social Studies (US History, Government, Economics, Elective)
- ½ unit Health
- ½ unit Career Technology
- 1 unit Physical Education
- 9 units Electives

Total Required: 24 units (credits)

A pupil shall not be required to enroll in health courses if the pupil's parent or guardian files a written statement with the school principal that the course conflicts with the pupil's religious beliefs. Iowa Administrative Code, Agency Number 281:12.5(6).

No senior will be allowed to participate in commencement exercises who have not met the minimum requirements for graduation as prescribed by the Department of Public Instruction and the Allamakee Community School Board.

AGRICULTURE EDUCATION

Agriculture I (Introduction to Agriculture)

Level: 9-12 Credit: 1 unit Prerequisite: None

Agriculture I offers students with an interest in agriculture the opportunity to explore animal production, crop production, agriculture mechanics, natural resources, and farm business management. In addition to the listed subject areas, students gain exposure to the function of the school's FFA program. This class may count as a science credit for graduation.

Precision Farming Systems

Level: 10-12 Credit: 1/2 unit Prerequisite: Agriculture I

Explores the concepts of Site Specific Agriculture (Precision Farming) and how it can improve profitability in a total crop management system. Students will use a basic GIS program to analyze data from a farm operation.

General Horticulture

Level: 10-12 Credit: ½ unit Prerequisite: Agriculture I

This course exposes students to the art and science of growing plants, shrubs, trees, flowers, fruits, and vegetables. In doing so, they cover a wide variety of topics, including greenhouse and nursery operations, soils and media mixtures, fruit and vegetable production, turf/golf course management, interior and exterior plantscaping, irrigation systems, weed and pest control, and floral design.

***Crop Science**

Level: 11-12 Credit: ½ unit Prerequisite: Agriculture I

This class provides an overview of crop management. It introduces the principles of plant-soil-climate relationships.

***Animal Science**

Level: 11-12 Credit: 1/2 unit Prerequisite: Agriculture I

This class provides an overview of the animal science industry. It explores breeds, basic management, and farm animal marketing. Topics include beef and dairy cattle, companion animals, horses, poultry, sheep and swine.

Veterinary Science

Level: 10-12 Credit: 1/2unit Prerequisite: Agriculture I

This course covers topics including the causes, diagnosis, and treatment of diseases and injuries of animals, typically emphasizing domestic and farm animals. Course topics focus on anatomy and physiology, nutrition, behavior, and reproduction.

***Farm Management**

Level: 11-12 Credit: ½ unit Prerequisite: Agriculture 1

This course provides an overview of the farm management process and the process of farm decision making. It includes record keeping, budgeting, year-end analysis, enterprise analysis, and tax management.

ART

Art Foundations

Level: 9-12 Credit: ½ unit Prerequisite: None

The principles and elements of art are studied and applied to various drawing and painting methods and techniques. Drawing media (pencil, chalk, charcoal, etc.), painting media (tempera, watercolor, acrylic, etc.), sculpture and printmaking will be explained.

Ceramics I

Level: 9-12 Credit: ½ unit Prerequisite: Art Foundations

Ceramics I introduce students to the art of making functional objects from clay. Students will learn to hand build pottery, decorate, glaze, and fire work. Students will learn slab, coil, and other hand-building forms. Decoration of pottery pieces will include using slip, texture, incising, and glaze.

Ceramics II

Level: 10-12 Credit: ½ unit Prerequisite: Ceramics I

This course will give students the opportunity to learn to use the potter's wheel and combine that skill with the hand building techniques learned in Ceramics I. Historical and contemporary potters and their work will be studied as a source for ideas to enhance student work. Students will make multiple pots including but not limited to: mugs, candle holders, bowls, a place setting. Functional and sculpture pottery is also explored.

General Crafts

Level: 9-12 Credit: ½ unit Prerequisite: None

Crafts are suited to the person who wants to design and make fine art work using a variety of art and craft techniques and mediums. Projects may include glass fusing and stained glass, fabric dyeing, paper making, books as visual objects, and basketry. The class offers hands-on experience to produce a variety of art forms.

Graphic Design I

Level: 10-12 Credit: ½ unit Prerequisite: None

Graphic Design I introduces students to computer graphics as design tools. Students will explore Adobe Illustrator and Adobe Photoshop software programs to create projects. Emphasis is placed on understanding the programs and becoming proficient in their use. A solid background in drawing is beneficial in the process.

Introduction to Drawing and Painting

Level: 9-12 Credit: ½ unit Prerequisite: Art Foundations

This course emphasizes basic drawing and painting techniques. Students have the opportunity to experiment with a variety of media and subject matter. Media included

are colored pencil, charcoal, watercolor, tempera, and acrylic paints. Art history and painting styles are explored.

Mixed Media Art

Level: 9-12 Credit: ½ unit Prerequisite: Art Foundations, at least 10th grade
Mixed Media Art is a one semester course designed to explore the creative process, and technical knowledge acquired through combining various media and techniques. Personal expression and the relationship between media and image will be examined in a variety of formats and techniques. Students will be encouraged to experiment in ways that will depart from the norm of what has been traditionally thought of as the art of drawing and painting. Sources and examples by artists from the past, as well as the present, will be used to direct the students in this class toward inventive solutions for the assigned projects. The materials emphasized in this course include: pen, ink, graphite, collage, acrylic, pastel, metal, paper, and digital images.

Sculpture

Level: 9-12 Credit: ½ unit Prerequisite: Art Foundations
Students in this class will work in the design and production of three dimensional art. They will learn to recognize texture and form as attributes of three dimensional art and recognize the difference between classic sculpture and contemporary sculpture. Projects may include relief sculpture, assemblage, animal figures, masks, and mobiles. The mediums may include clays, cardboard, Styrofoam, paper, plaster and miscellaneous materials.

Advanced Studio Art

Level: 11-12 Credit: ½ unit Prerequisite: at least 5 previous art classes or instructor approval.
Studio Art is an advanced course for the serious art student. The goal of the course is for each student to develop a portfolio of art work that best represents his/her artistic skills. Based on class assignments, students will work on individual projects, thus reinforcing and expanding upon previously learned skills. Students will use a sketch book to organize ideas and will learn to make decisions necessary to do successful art work on their own, display their work and critique it. Because each student in the class could choose different mediums for an assignment, students are expected to know the technical basics and have classroom experience using the medium that they choose. The courses may be retaken for credit, with teacher/administrative approval and a minimum grade of B+ in the previous class.

***Art History I**

Level: 11-12 Credit: ½ unit Prerequisite: None
This class is the study of the visual arts in western civilization including painting, sculpture, and architecture from prehistoric times through the Gothic period.

***Art History II**

Level: 11-12 Credit: ½ unit Prerequisite: None

This is the study of the visual arts in western civilization including painting, sculpture, architecture, and photography from the Renaissance through the twentieth century.

BUSINESS

Accounting I

Level: 10-12 Credit: 1 unit Prerequisite: None

Accounting I is the study of principles, guidelines, and rules that will provide the individual, or management, with information to make informed business and financial decisions. The course will give a thorough background in the basic accounting procedures. The students will learn the step-by-step procedures that are necessary to determine profits or improvement in a financial position. The purpose of accounting is to prepare individuals to keep a personal set of records and to explore accounting or other business fields as a career choice. The goal of accounting is to learn the many uses and values that an accurate and complete set of financial records can have for an individual or business.

Accounting II

Level: 11-12 Credit: 1 unit Prerequisite: Accounting I

Accounting II incorporates the accounting equation and systems approach established in the first year course. The first quarter will be devoted to learning about the microcomputer and solving problems on previously performed manually. The final three quarters will be developed to managerial and corporate accounting in controlling revenue, costs, and expenses. A continued emphasis will be placed on the microcomputer to help in the processing of data throughout the year.

Business Law

Level: 10-12 Credit: ½ unit Prerequisite: None

Law is an instrument of social control that affects all of us. Business provides the necessities of life. The combination of these two concepts is what will be studied in this course. Business Law is intended to help the student identify legal issues and problems that arise in everyday living. The content will stress the origins of our law as we know it today, the courts, fraud and property law.

Introduction to Entrepreneurship

Level: 10-12 Credit: ½ unit Prerequisite: None

Owning and operating a business is an idea that appeals to many people. This course will introduce the many aspects required to create a successful new venture. Course topics include the history of entrepreneurship, the role of entrepreneurs in the 21st century global economy, and the identification of entrepreneurial opportunities. Creative problem-solving, the development of a business concept, and creating and interpreting financial statements are part of the course. The final project is to write a simple business plan. This course is intended to give students a feel for what is involved with being an entrepreneur and if the role of entrepreneur is one he or she might find appealing.

***Introduction to Business**

Level: 11-12 Credit: 1 unit Prerequisite: None

Exposes students to the role of the bookkeeper, manager, and junior accountant in relation to the many facets of the business world, including the economic system, marketing functions such as sales, production, and finance, and types of business organizations. This is a semester long, blocked course.

***Principles of Management**

Level: 11-12 Credit: 1 unit Prerequisite: None

Studies basic factors in the work environment that affect managerial decision making. Emphasizes the four functions of management with discussion of managerial ethics and social responsibility.

***Pre-Employment Strategies**

Level: 10-12 Credit: 1/2 unit Prerequisite: None

Basic introduction to skills necessary for entry-level employment positions. Networking with local employers will be a key component. A work performance rating and a National Career Readiness Certificate will be awarded based on WorkKeys testing results which will be recognized in interviewing and compensation practices of some local employers. Stresses options for continuing education through NICC programs. Students who are participants of the YCC grant are required to take this course.

VREP

Level: 9-12 Credit: ½ unit per semester Prerequisite: Instructor permission

The Virtual Reality Education Pathfinder is an independent study educational initiative that is offered to 9-12 students. VREP provides an opportunity to develop and expand learning across the curriculum by capturing student interest through the use of Virtual Reality and 3D. Students become self-motivated learners and mentors for their peers. They are required to create VR projects related to their own interests for educational use within the district. Students wanting to enroll in the course must contact the instructor and complete an application process.

General Business

Level: 9-10 Credit: 1 unit Prerequisite: None

This course will discuss commerce, decision making, time management, economic systems, private enterprise, career choices, business communications, money and banking, credit, saving and investing, insurance, and business ownership/entrepreneurship as they apply to today's technological society. Information and concepts to be learned will be presented through lectures, large and small group discussions, overhead, videos, field trips, and computer resources. Tests and quizzes will be given periodically to check for comprehension of lecture material, vocabulary, and supplementary materials as they apply to each of the units.

Career Technology

Level: 10 Credit: ½ unit Prerequisite: Required course

Students will be able to demonstrate technology skills in the areas of digital citizenship, applications, financing, research, programming and career research.

***Fundamentals of Web Design**

Level: 11-12 Credit: ½ unit Prerequisite: None

Introduces the basics of webpage creation and maintenance. Uses hypertext markup language in the creation of webpages. Stresses good screen layout and design principles, includes use of application software to create webpages, explores enhancements and extensions of HTML, and incorporates scripting in creating Web pages.

***The College Experience**

Level: 11-12 Credit ½ unit Prerequisite: None

College is new and different experience for many students. This course conveys expectations of the college culture to first-time college students. It provides and examination of the student's learning styles, familiarization with college resources and support services, review of important study and test taking skills, development of goal setting and decision making skills, and enhancement of personal relationship skills that relate directly to success in college. This course is required for all students intending to pursue any type of degree from NICC.

ENGLISH

English 9

Level: 9 Credit: 1 unit Prerequisite: Required

English 9 is primarily a literature course in which the focus is on improving student achievement in reading, writing, empathy, and communication. Over the course of the year, students will read *Of Mice and Men*, *Romeo & Juliet*, *Fahrenheit 451*, *Animal Farm*, and *To Kill a Mockingbird*. There are also units which cover nonfiction, written expression, and successful communication.

Honors English 9

Level: 9 Credit: 1 unit Prerequisite: Teacher recommendation/test scores

Honors English 9 is primarily a literature course in which the focus is on improving student achievement in reading, writing, empathy, and communication. Students will experience units centered around group projects, solo projects, and effective communication techniques. Over the course of the year, students will read *Of Mice and Men*, *To Kill a Mockingbird*, *Slaughterhouse-Five*, and *The Catcher in the Rye*, along with other selections chosen by the teacher.

English 10

Level: 10 Credit: 1 unit Prerequisite: Required

This course is designed to give the student experience in oral and written communication. Students will research, construct, and deliver at least three major speeches throughout the semester. Frequent assignments dealing with narrative writing, descriptive writing, and

expository writing will be assigned. Also vocabulary study is a necessary part of this course. Students will study four major literary genres: poetry, drama, short story, and novel. Emphasis will be on the structures of each genre, as well as on the terms and techniques associated with each. Themes will also be emphasized.

Honors English 10

Level: 10 Credit: 1 unit Prerequisite: Teacher Recommendation/test scores
This course is designed to give the student experience in oral and written communication. Students will research, construct, and deliver at least three major speeches throughout the semester. Frequent assignments dealing with narrative writing, descriptive writing and expository writing will be assigned. Also vocabulary study is a necessary part of this course. Students will study four major literary genres: poetry, drama, short story, and novel. Emphasis will be on the structures of each genre as well as on the terms and techniques associated with each. Themes will also be emphasized.

English Lab

Level: 9-10 Credit: 1 unit Prerequisite: Qualifying Iowa Assessment scores
Literature lab works with a variety of short stories, at least one a week. Students will read novels independently, enhance vocabulary, work with literary elements, discuss short stories, and problem solve. Students will take comprehension tests weekly.

English Lab 11

Level: 11 Credit: 1/2 unit Prerequisite: Qualifying Iowa Assessment scores
Literature lab works with a variety of short stories, at least one a week. Students will read novels independently, enhance vocabulary, work with literary elements, discuss short stories, and problem solve. Students will take comprehension tests weekly.

English 11

Level: 11 Credit: 1 unit Prerequisite: Required
This course continues to develop students' writing skills, emphasizing clear, logical writing patterns, word choice, and usage, as students write essays and begin to learn the techniques of writing research papers. Students continue to read works of literature, which often form the backbone of the writing assignments. Literary conventions and stylistic devices may receive greater emphasis than in previous courses.

Honors English 11

Level: 11 Credit: 1 unit Prerequisite: Teacher recommendation/test scores
This course continues to develop students' writing skills, emphasizing clear, logical writing patterns, word choice, and usage, as students write essays and begin to learn the techniques of writing research papers. Students continue to read works of literature, which often form the backbone of the writing assignments. Literary conventions and stylistic devices may receive greater emphasis than in previous courses.

English 12

Level: 12 Credit: 1 unit Prerequisite: Fulfills fourth year of English
This course blends composition and literature into a cohesive whole as students write critical and comparative analyses of selected literature, continuing to develop their language arts skills. Students primarily write multi-paragraph essays, but they may also write one or more major research papers.

***Public Speaking**

Level: 11-12 Credit: ½ unit Prerequisite: None
This course is an introductory course emphasizing actual speaking experiences with practice in choosing subjects, analyzing audiences, and preparing and delivering a variety of extemporaneous speeches. It provides opportunity for skill development in listening and group discussion techniques.

***Foundations of Writing**

Level: 11-12 Credit: ½ unit Prerequisite: Qualifying Accuplacer or ACT scores
This is a writing course that develops fluency and confidence in communication and clarity in thinking through writer's notebooks, expository writing, analytical reading, and listening. Structured assignments are used to explore personal goals and values, exercising skills needed for reasoning and writing across the curriculum.

***College Composition I**

Level: 11-12 Credit: ½ unit Prerequisite: Qualifying Accuplacer or ACT scores
This class prepares the student for the types of communication and thought essential to academic and working-world success. The course focuses on writing as a process and is intended to help students identify and refine their own personal writing.

***College Composition II**

Level: 11-12 Credit: ½ unit Prerequisite: Must have completed College Composition I with a minimum grade of C-.
This class is a writing course that focuses on writing as a process with emphasis on persuasion, evaluation, analysis, investigation, research, and documentation sources.

Publications (does not count for English credit)

Level: 9-12 Credit: 1 unit Prerequisite: None
Students will have the opportunity to produce the school yearbook as well as the school newspaper. Student's skill and understanding will be measured through various quizzes, tests, and projects. Students learn to write and edit in a journalistic style, with an emphasis on correct usage and clarity of thought. Students create editorials, features, and news items. Design and layout are part of the class.

FOREIGN LANGUAGE

Spanish I

Level: 9-12 Credit: 1 unit Prerequisite: None

Spanish I is a one year elective course. A good knowledge of English grammar is important. In this class students learn basic vocabulary to speak and write in Spanish about topics related to daily life. Activities include conversations and composition, with emphasis on customs and traditions of the Spanish speaking world.

Spanish II

Level: 10-12 Credit: 1 unit Prerequisite: Spanish I

Spanish II is a one year elective course. In this class students continue to develop listening, reading, and writing skills learned in Spanish I. Emphasis is given toward the ability to express ideas in Spanish, and to read with interest and understanding. Class activities include conversation, composition, projects, and study of the culture, traditions, and customs of Spanish speaking people. Tapes, songs, films, magazine articles, and games supplement the textbook. Spanish is spoken whenever possible.

Spanish III

Level: 11-12 Credit: 1 unit Prerequisite: Spanish II

Spanish III will be conducted in Spanish, for the most part. The course includes a review of the basic Spanish conversation and compositions based on materials covered in class and topics of interest to students. Emphasis is placed on oral proficiency—the ability to communicate on a given topic in the target language. Students will be introduced to Hispanic art, folk art traditions and literature throughout the year.

Spanish IV

Level: 12 Credit: 1 unit Prerequisite: Spanish III

Spanish IV is a continuation of Spanish III. The class will be conducted in Spanish. Students will be exposed to more Hispanic literature, art, culture and traditions. The course includes a review of basic Spanish with emphasis placed on oral proficiency—ability to communicate on a given topic in the target language.

HEALTH OCCUPATION

***Medical Terminology**

Level: 11-12 Credit: 1 unit Prerequisite: None

This course is the study of medical terminology as the language of medicine with emphasis on word analysis, construction of definitions, pronunciation and spelling of medical terms. This is an online course.

***Dosage Calculations**

Level: 11-12 Credit: ½ unit Prerequisite: ACT or Accuplacer Scores

Dosage calculations includes a review of fractions and decimals, conversions of metric, apothecary and household units and computations of drug dosage. The classification of drugs affecting each body system will be an integral part of this course.

***Nurse Aide Course**

Level: 11-12 Credit: ½ unit Prerequisite: ACT or Accuplacer Scores

This 75-hour course meets the training of The Omnibus Budget Reconciliation Act of 1987 (OBRA) for aides working in nursing facilities (NF) and skilled nursing facilities (SNF). It emphasizes the achieving of a basic level of knowledge and demonstrating skills to provide safe, effective resident/client care. (30/15 and 30 clinical hours.)

***Introduction to Health Occupations**

Level: 10-12 Credit: ½ unit Prerequisite: None

This class is the exploration of health career pathways in therapeutic, diagnostic, health informatics, and support services. The course will emphasize the need for communication and teamwork as well as the technical skills necessary in the healthcare workforce.

***Nutrition**

Level: 11-12 Credit: ½ unit Prerequisite: None

Nutrition emphasizes a practical knowledge of good nutrition and some knowledge of diet therapy. It includes a background of adequate and accurate information on basic nutritional needs of the body. This is an online course.

***Principles of Disease**

Level: 11-12 Credit: ½ unit Prerequisite: Medical Terminology

A focus of essential concepts of disease processes in relationship to the etiology, pathogenesis, pathology, and treatment of human diseases. This is an online course.

INDUSTRIAL TECHNOLOGY

***Basic Construction Skills**

Level: 11-12 Credit: 1 unit Prerequisite: Construction & Manufacturing;
(Construction is a blocked course of two periods)

This course provides basic background to the construction industry. Students gain a better understanding of the skills, knowledge, and abilities required to be a successful crafts person. Students who take Construction for the entire year will earn up to eight college credits.

Construction & Manufacturing I

Level: 9-12 Credit: ½ unit Prerequisite: None

This class will be used to cover common tools and practices used in construction and manufacturing. General safety, layout and measurement, computer aided drafting and job skills will also be covered.

Construction & Manufacturing II

Level: 9-12 Credit: ½ unit Prerequisite: Construction & Manufacturing I

This course is a continuation of Construction & Manufacturing I. Projects will be made using woodworking/carpentry tools as well as manufacturing/metals tools including welding.

Consumer Mechanics

Level: 9-12 Credit: ½ unit Prerequisite: None

Students will cover many of the aspects that every automobile consumer should know such as: costs involved in owning an automobile, car care, safety when working with an automobile. We will also cover many of the different types of systems in an automobile such as ignition system, brake system, suspension system, etc. Time will be spent later in the semester taking apart and re-assembling a small engine and learning about the aspects of power.

Electricity

Level: 9-12 Credit: ½ unit Prerequisite: Algebra I

Students will learn about the various aspects of electricity including Ohm's law, conductors and insulators, resistors and capacitors, parallel and series circuits, and more. By doing electricity lab work students will also have the opportunity to do various hands on activities including some basic house wiring.

Metals Fabricating

Level: 10-12 Credit: 1/2 unit Prerequisite: Construction & Manufacturing

Students in this class will build upon the skills and knowledge they have gained from Metals I & II. This class will be a hands-on course where students will design and build a variety of projects and products. Students will work both individually, in partnerships and together as a class on various manufacturing based assignments.

Manufacturing/Metals

Level: 9-12 Credit: ½ unit Prerequisite: Construction & Manufacturing

Students will be introduced to some basic metal working skills. Students in this course will study the processes involved in manufacturing. Students will explore a number of materials processing techniques. They will learn how the activities of business and productivity are managed. They will apply this knowledge in a realistic setting by them marketing and selling the product of their labor.

Manufacturing/Wood (Traditional Bow Building)

Level: 9-12 Credit: ½ unit Prerequisite: Construction & Manufacturing

The student will learn the skills necessary to complete their own bow. This class will provide students with a unique and challenging learning opportunity. An opportunity that will provide the student with a unique skill and a highly functional work of art that can last a lifetime.

MATHEMATICS

Algebra I

Level: 9-12 Credit: 1 unit Prerequisite: None

Algebra I includes the basic fundamentals of algebra. Problems are solved using algebraic methods and rules. Students will learn to manipulate algebraic expressions and solve several types of equations. Students must do daily assignments to succeed in this course.

Algebra II

Level: 10-12 Credit: 1 unit Prerequisite: Algebra I, C- in Geometry

Algebra II is an elective college prep course for students who wish to do extensive work in the math and science area. The topics studied in Algebra II include: solutions to linear equations, factoring polynomials, rational expressions, radicals and rational exponents, quadratic equations, complex numbers, coordinate geometry, matrices and determinants, functions and relations, conic sections, logarithmic functions, trigonometric functions and their graphs.

Algebra A

Level: 9-12 Credit: 1 unit Prerequisite: None

Algebra A will be a year-long course. It will cover the same material that is covered in the 1st semester of Algebra I.

Algebra B

Level: 9-12 Credit: 1 unit Prerequisite: Algebra A (passing grade)

Algebra B will be a year-long course. It will cover the same material that is covered in the 2nd semester of Algebra I

Algebra C

Level: 10-12 Credit: 1 Unit Prerequisite: App Geometry or Geometry

Algebra C will be a year-long course. It will cover some of the same material as Algebra II but at a slower pace.

Calculus

Level: 12 Credit: 1 unit Prerequisite: C- in Pre-Calculus

Calculus is a year-long course. Topics to be studied include: set theory, coordinate geometry, advanced trigonometry, functions, derivatives, applications of the derivative, integration, continuity, limits, differentials, graphs, the definite integral and applications of the integral.

Consumer Math I

Level: 10-12 Credit: ½ unit Prerequisite: None

Consumer Math I will be a one semester class. It will cover consumer related topics such as figuring wages and withholdings and various banking topics.

Consumer Math II

Level: 10-12 Credit: ½ unit Prerequisite: None

Consumer Math II will be a one semester class. It will cover consumer related topics such as housing costs, taxes, insurance, and travel expenses.

General Math

Level: 9 Credit: 1 unit Prerequisite: None

General Mathematics will further the development of the basic concepts in Math. Measurement in the metric and customary systems will be included. The application of the concepts to everyday and career problems will be emphasized so the student will

build a stronger foundation onto which they can make the transition to consumer mathematics and other courses in mathematics.

Geometry

Level: 9-12 Credit: 1 unit Prerequisite: C- in Algebra I

Geometry develops the students' ability to reason deductively and gives logical problem-solving strategies necessary to go through college prep curriculum. The topics studied include: Direct and indirect reasoning, properties of lines and angles, direct and proofs, congruent triangles and their applications, Constructions, parallel and perpendicular lines, quadrilaterals, polygons, similarity of polygons, circles and lines, areas of geometric figures, and coordinate geometry.

Applied Geometry

Level: 9-12 Credit: 1 unit Prerequisite: Algebra A or Algebra I

In this course students will learn the important concepts of geometry and how to apply them. At the end of this course students will know how to find the area, surface area and volume of all polygons, important concepts of circles, triangles, and other polygons and some basic trigonometry. There are no geometric proofs in this course making it less rigorous than Geometry.

Introduction to Statistics

Level: 10-12 Credit: ½ unit Prerequisite: None

This course introduces the study of likely events and the analysis of the data. Course topics may include basic statistics, theory, odds and probabilities and presentation of data.

Pre-Calculus

Level: 11-12 Credit: 1 unit Prerequisite: C- in Algebra II

Pre-Calculus is an elective college prep course. Topics to be studied include: Linear relations with linear programming, theory of equations, matrices, vectors, advanced trigonometry, sequences, series, mathematical induction, polar form of complex numbers, exponential functions, logarithmic functions, straight line, conics (circle, parabola, ellipse, and hyperbola), polar form of conics, permutations, combinations, probability, and a small section on calculus.

***Technical Math**

Level: 11-12 Credit: ½ unit Prerequisite: Qualifying Accuplacer or ACT scores

Introduces selected topics from algebra and trigonometry with everyday applications to technical areas. Some topics presented include the solution of linear and quadratic equations, trigonometric functions, vectors, graphing, and equations. This class is intended for students planning to pursue a two year technical degree.

MUSIC

Concert Choir

Level: 9-12 Credit: 1 unit Prerequisite: JV Choir participation or approval of Director

Choir studies all aspects of performing with a vocal ensemble. It provides the skills to become an independent performer for later life. Any student wishing to sing in Concert Choir must take a short audition or have previous experience. This is done so that a balance of men and women's voices may be achieved. Students who audition can expect to be assigned to the soprano, alto, tenor or bass parts, and receive an idea of the quality of their voice, as well as the sensitivity of their ear.

JV Choir

Level: 9-12 Credit: 1 unit Prerequisite: None

JV Choir is open to all students. A wide range of music literature is performed from pop to classical, however, students should be willing to sing heavy literature and be receptive to personal improvement in their musical skills.

High School Band

Level: 9-12 Credit: 1 unit Prerequisite: Junior High band or one semester of lessons
Band participation requires the student to be present for regularly scheduled classroom rehearsals, sectional rehearsals and an individual lesson every 5 to 6 school days, as well as participation at all performances. Lessons take place during the school day. Lesson materials are chosen to meet the specific needs of each student. Students earn their grade through a combination of lesson attendance, rehearsal attendance, performance attendance, effort positive attitude, individual responsibility, and teamwork, which all contribute to the growth and success of the individual as well as the band.

PHYSICAL EDUCATION, HEALTH, DRIVER EDUCATION

Driver Education

Level: 9-12 Credit: None Prerequisite: None

Driver Education is a course composed of a three-phase program: 30 hours of classroom; six hours of behind the wheel instruction; six hours of in-car observation. Registration for this class is done through the high school office during the school year.

Health/Safety I

Level: 10 Credit: ½ unit Prerequisite: Required Course

Health/Safety I provides students with the knowledge and experiences to develop their ability to make healthful decisions. The program is designed to build concepts in ten areas that are recommended by both state and national guidelines in Health Education. These ten content areas include: personal health, food and nutrition, safety and accident prevention, prevention and control of disease, sexually transmitted diseases and AIDS, emotional/social health, family life, alcohol, tobacco, and substance use and abuse, environmental health, consumer health, and health careers services. Students will have the opportunity to earn their CPR certification. This course emphasizes what is happening now and how this is related to the student and society as a whole.

Foundations of Fitness

Level: 11-12 Credit: ½ unit Prerequisite: Health/Safety I

Foundations of Fitness are a continuation of the Health/Safety I course, but allow more in-depth investigation of current issues in Health Education. The emphasis of the course is on how the issues pertain to the student as an individual and society as a whole.

Physical Education

Level: 9-12 Credit: .25 units per year Prerequisite: Required Course
Physical Education contributes to students' well-being and health, develops fundamental and advanced motor skills, improves students' self-confidence, and provides opportunities for increased levels of physical fitness that can be associated with high academic achievement. The patterns of physical activity acquired during childhood and adolescence are likely to be maintained throughout one's life time, providing physical, mental and social benefits. Physical Education at Waukon High School will be divided into different course offerings: *Personal Fitness, Individual & Team Sports, Low-Impact Activities, Weight Training for Performance, and Performance Preparation*. All units are designed to be co-ed. Students must choose one of the following three offerings:

Course Name: Personal Fitness—Day A **Prerequisite:** None

Course Description: This course requires a \$15 fee per semester for membership to the Waukon Wellness Center. A limit of 15 students per class is set for this course. Students will be required to change clothes for activity and will be required to have a clean pair of shoes for admittance into the Waukon Wellness Center. Students will be expected to not only follow class rules and procedures, but also those of the Waukon Wellness Center. Students will use heart rate monitors, weight equipment, cardio-vascular equipment, walking track, and racquetball courts to execute a personal fitness plan that they design. Student might have access to the Waukon Aquatic Center for the first weeks in the fall, weather permitting. Some written work and research will be required.

Course Name: Individual/Team Sports—Day B **Prerequisite:** None

Course Description: Units will include activities considered by most as team or individual sports. Instructing students of basic rules and strategies while providing them opportunities to raise fitness levels will be the goal of this class. Students will be required to change clothes for activity. A limit of 25 students per class is set for this course. Units will include, but not be limited to: Swimming, Flag Football, Volleyball, Dodgeball, Basketball, Badminton, Soccer, and Softball.

Course Name: Low-Impact Activities—Day C **Prerequisite:** None

Course Description: Most units will utilize activities that are considered to have a low-impact on the body while raising student heart rates into their training zones. Heart rate monitors (provided by the school) will be used by students to monitor their success of working in their target training zone. A limit of 20 students per class is set for this course. Units will include, but not be limited to: Swimming, Bocce, Frisbee Golf, Badminton, Aerobics, Indoor Archery, and Golf.

Weight Training for Performance

Level: 9-10 Credit: 1 unit Prerequisite: Coaches permission

This course will teach advanced methods of strength and conditioning using weights and

plyometric training. Some written work and research will be required. This course will be offered 1st period and will take the place of PE class.

PROJECT LEAD THE WAY

***Introduction to Engineering Design**

Level: 9-12 Credit: 1 unit Prerequisite: None

The major focus of IED is the design process and its application. Through hands-on projects, students apply engineering standards and document their work. Students use industry standard 3D modeling software to help them design solutions to solve proposed problems, document their work using an engineer's notebook, and communicate solutions to peers and members of the professional community.

***Principles of Engineering**

Level: 10-12 Credit: 1 unit Prerequisite: Geometry or Intro to Eng. Design

This survey course exposes students to major concepts they'll encounter in a postsecondary engineering course of study. Topics include mechanisms, energy, statics, materials, and kinematics. Students develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, document their work and communicate solutions.

***Computer Science & Software Engineering**

Level: 11-12 Credit: 1 unit Prerequisite: None

Using Python and other languages, students develop their own app, create dynamic websites, and construct their own graphical user interface. Introduces students to professional programming languages and platforms and encourages students to use these tools to discover, collaborate and create.

***Engineering Design and Development**

Level: 12 Credit: 1 unit Prerequisite: IED or POE

Students will perform research to choose, validate, and justify a technical problem. After carefully defining the problem, teams of students will design, build and test their solution. Teams will present and defend their original solution to an outside panel. Students will work closely with experts.

SCIENCE

Advanced Biology/Criminology

Level: 11-12 Credit: ½ unit Prerequisite: 1 year of Biology

Advanced Biology/Criminology is a course designed to teach the student the application of science to a criminal investigation. Through actual case histories the student will explore the impact forensic science has had on the "crimes of a century" like the Lindberg kidnapping and other important cases such as the O.J. Simpson criminal investigation. The focus of the course is on the up-to-date technologies police rely on to

apprehend criminal perpetrators and to link them through trace evidence to crime scenes. An emphasis is placed on the DNA typing procedures, new advances in crime scene investigation, the digital imaging enhancement of fingerprints, computerized ballistic examination, drug and alcohol analysis as well as arson and explosion detection technologies. A major portion of the class is devoted to how common items of physical evidence are located at crime scenes, and how they are processed in the crime lab.

Anatomy and Physiology

Level: 11-12 Credit: 1 unit Prerequisite: Biology with a C- or better
Anatomy and Physiology is a year-long course intended for the student who is interested in the structure and function of the human body. First semester exploration includes an overview of fibrous, skeletal, muscular, nervous, circulatory systems, and the joint role each system has in the function of the human body. First semester labs include microscopic studies of various tissues, fetal pig dissection and rat dissection. Second semester overview is a continuation of first semester studies with emphasis on the muscular components and a comprehensive dissection completed on a cat. This course is especially helpful for those interested in careers in the health/medical field.

Biology

Level: 10 Credit: 1 unit Prerequisite: Required Course
Biology is intended as an introductory course to the basic and fundamental concepts that affect all living things. Some of these concepts studied are ecology; cell structure and function; reproduction; genetics; evolution; plant and animal classification; human biology; and environmental problems. Practical application of biological principles and careers exploration will be incorporated in this course.

Chemistry

Level: 10-12 Credit: 1 unit Prerequisite: Enrolled in or have taken Algebra II
This course is an introduction to the basic principles of chemistry which provides students with exposure to topics including matter, measurement, atomic structure, chemical periodicity, bonding, nomenclature, equation balancing, the mole concept, stoichiometry, behavior of gases, acids and bases, and reaction rates. Laboratory work is an integral part of this course that reinforces learning concepts and cooperative learning.

Environmental Science

Level: 11-12 Credit: 1/2 unit Prerequisite: None
Environmental Science is a one semester course designed to help students learn more about the inner workings of our environment, human impact on the environment, and what we can do to reduce the negative consequences.

Physical Science

Level: 9 Credit: 1 unit Prerequisite: Required Course
Physical Science is a year-long course. The purpose of the course is to study matter and energy. A major goal of this course is to help students develop and understanding of the world around them through sound content and the practice of skills that will help them reach that understanding. Everyday applications of physical laws are emphasized.

Physics

Level: 11-12 Credit: 1 unit Prerequisite: B- or better in Chemistry, Algebra II
Physics is a two-semester course. The first semester includes the applied mechanics of motion, force, gravity, and torque. Mathematical equations will be used throughout to analyze and predict results. The second semester consists of light including reflection, refraction energy transfer and defraction. Application of electricity and electrical devices including measurement technique will be studied.

***General Biology I**

Level: 11-12 Credit: 1 unit Prerequisite: None
This class is a study of unifying concepts of modern biology with an emphasis on the organization and operation of living systems: metabolism, growth, development, reproduction, and inheritance. This is a block class and will require a minimum of 3-4 hours outside of class to complete assignments. This class may be offered every other year.

***General Biology II**

Level: 11-12 Credit: 1 unit Prerequisite: None
This class is a survey of the form and function of monerans, protists, fungi, plants, invertebrates, and vertebrates, including a study of their ecological interrelationships and discussions of current environmental issues. This is a block class and will require a minimum of 3-4 hours outside of class to complete assignments. This class may be offered every other year.

***Human Anatomy and Physiology I and Lab**

Level: 11-12 Credit: 1 unit Prerequisite: C- in Biology
Introduces the structure and function of the human body, beginning with a study of the molecular, cellular and tissue levels and continuing with emphasis on selected organ systems. This is a block class. This class may be offered every other year.

***Human Anatomy and Physiology II and Lab**

Level: 11-12 Credit: 1 unit Prerequisite: C- in Human Anatomy/Phys I
Continues the study of structure and function of the human body introduced in Human Anatomy and Physiology I, with review of the molecular, cellular, and tissue levels of organization and emphasis on selected organ systems. This is a block class. This class may be offered every other year.

SOCIAL STUDIES

Honors U.S. History

Level: 11 Credit: 1 unit Prerequisite: None
AP History is organized to meet the Advanced placement course requirements in U.S. History. The course will fulfill the U.S. History graduation requirement. The course offers the highly motivated students experiences valuable in preparation for higher education. The student is encouraged (but not required) to take the College Board AP

test in the spring. By taking the test and scoring high enough, the student may receive college credit (depending on the college the student will attend). Topics include: Exploration, Colonization, Independence, Jacksonian Era, Civil War, Reconstruction, Industrialization, new Deal Era, World War II, Post War Era, The 60's, Vietnam, and Recent Times.

Contemporary World Issues

Level: 9-12 Credit: ½ unit Prerequisite: None
Contemporary World Issues will examine the issues that face the United States and the world. Examples include: terrorist threats, adverse weather, politics and elections, social uprisings, etc... Students will view a daily current events segment on the internet and then be assigned current events topics to journal and discuss. Students will also do an in-depth analysis of a current topic affecting the world. Weekly current events quizzes.

Economics

Level: 12 Credit: ½ unit Prerequisite: Required Course
Economics contains units on government and economic systems, consumer economics, business organization, the labor movement, monetary and fiscal policy, money and banking and rural problems. Economics is designed to help people to understand basic problems they will face in future life.

***Principles of MacroEconomics**

Level: 12 Credit: ½ unit Prerequisite: None
Presents material essential to an understanding of the economic forces at work in our global society: the market system, supply and demand, gross national product, gross domestic product, the banking system, fiscal and monetary policy, international trade, and various economic systems employed throughout the world. *This course will fulfill the Economics graduation requirement.

Government

Level: 12 Credit: ½ unit Prerequisite: Required Course
Government contains units on the federal system, courts, constitution, civil rights, citizenship, political activity, and the operation at Federal, State, and Local Governments. All graduates must successfully complete one semester course in American Government.

Psychology

Level: 11-12 Credit: ½ unit Prerequisite: None
Psychology is defined as the scientific study of the mind and behavior. Students will be introduced to the scientific method and core ideas and theories of psychology. Students may apply knowledge gained from this class to their daily lives. During the semester, we will attempt to include as many chapters as possible from the seven content domains: Scientific Inquiry, Biopsychology, Development and Learning, Sociocultural Context, Cognition, Individual Variations, and Applications of Psychological Science.

Sociology

Level: 11-12 Credit: ½ unit Prerequisite: None

Sociology is the study of human relationships: such things as crime, family, delinquency, poverty and war are discussed. The topic of “aging” is also covered since all of our population is affected with an increasing number of older people in our society. One of the major goals of the course will be to help the student to understand the society in which they live.

***Introduction to Sociology**

Level: 11-12 Credit: ½ unit Prerequisite: None

The basic sociological principles and basic processes of group behavior. Includes the study of social interaction, family and group life, social institutions, status and role, culture, population, structure and change, and community structures (both urban and rural).

***Introduction to Psychology**

Level: 11-12 Credit ½ unit Prerequisite: None

A survey of psychology including theoretical and experimental findings and applications from areas such as physiological learning, memory, personality, social abnormal, and therapy, and health psychology.

U.S. History

Level: 11 Credit: 1 unit Prerequisite: Required Course

U.S. History is organized on a chronological basis beginning with Reconstruction to the present time. Topics include: the study of American documents; Reconstruction; the American West; the Rise of Industrialism; Labor Unions; Farm problems; the Reform Movements; World War I; the 1920s'; the Depression and the New Deal; World War II; the Cold War and Post-War Domestic Issues.

Western Civilization

Level: 9-12 Credit: ½ unit Prerequisite: None

Western Civilization is a history course organized chronologically. It begins with the study of the Greeks and Romans and their contributions to our world. The unit of the Middle Ages emphasizes its effect on Europe. The Renaissance and Reformation are explored in Unit III. The Age of Revolutions recounts the battle for democratic ideals in Europe. The unit dealing with the Industrial Revolution documents its effect on the present. The last unit examines the devastating results of the wars fought since 1914 to the present time.

World Geography

Level: 9-12 Credit: 1 unit Prerequisite: None

World Geography is a one year course that provides the students with a comprehensive study of the basic concepts and principles of both physical and cultural geography. The course is designed to meet three major goals. First, the course helps students develop an understanding of the principles of physical geography. Second, the course helps students develop an understanding of the cultural regions of the world. Third, the course helps students build geographic literacy, through which they can gain an appreciation for the

earth and its many different people. Constant attention is also given to reading skills, vocabulary and the need for individualization.

World Cultures

Level: 9-12

Credit: ½ unit

Prerequisite: None

World Cultures is a course designed to familiarize students with cultures that are different from our own Western Civilization. The course is divided into five areas: the former Soviet Union; People’s Republic of China; Latin America; the subcontinent of India; and Sub-Saharan Africa. Each area is explored in terms of geography, economic system, political structure, and social organization.