## Viroqua High School

## Course Description Guide

2023-2024

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# VIROQUA HIGH SCHOOL GRADUATION REQUIREMENTS 

English
Mathematics

## Science

## Social Studies

Physical Education Health
Electives

## TOTAL

## 4 credits

3 credits (Intro to Probability \& Stats Required)
3 credits
3 credits (us. History nan Wordd Hisory reauries)
$11 / 2$ credits (must be taken in 3 different years)
$1 / 2$ credit
11 credits (Personal Finance required)
26 Credits

## AGRICULTURE

## AGRICULTURAL AND PLANT SCIENCES (1 credit)

This entry-level course is specifically designed for freshmen who want to learn more about the world of agriculture. The class looks at agriculture and how it affects us and citizens worldwide. Topics of study include agricultural careers, National FFA Organization, plant science, food science, leadership, and production.
This course is approved as a science-equivalent credit course.

## ANIMAL SCIENCE ( 1 credit)

## Grades 10-12

The purpose of this class is to inform students about management practices involved in producing livestock such as beef cattle, dairy cattle, swine, and sheep. Units of study include nutrition, genetics, reproduction, breed identification, disease prevention, parasitology, facility maintenance, health care, and quality product production. Students enrolled in this course will have a better understanding of the meat industry and management practices utilized in the livestock industry.
This course is approved as a science-equivalent credit course.

## AGRICULTURAL PROCESSING (1 credit)

## Grades 11-12

The main objective of this course is to introduce students to methods of food preservation and the effects of food additives, sugars, fats, colors, and flavors on food quality. Students will look at the science and chemistry involved in food processing and explore careers in the food industry. Emphasis will be placed on issues relating food safety and genetically modified foods to consumer concerns. Multiple labs are included in all areas of food processing.

## GREENHOUSE MANAGEMENT/LANDSCAPING* (1 credit)

## Grades 11-12

This course is intended to give the students knowledge and skills to successfully raise their own plants. Topics include plant reproduction and propagation, vegetables, fruit production, houseplant care, landscaping and turf management, and tree pruning. Class includes work in greenhouse and normal classroom work.

## MACHINERY MANAGEMENT ( 1 credit)

## Grades 11-12

This class is designed for the students with an interest in equipment maintenance, production and repair. Units covered include basics of the gasoline and diesel engines, hydraulics, pneumatics, equipment maintenance, and project production. The class is designed around student projects to repair or fabricate.

## CONSTRUCTION I* ( 1 credit)

## Grades 11-12

This class is designed to provide students with the hands-on activities involved in the many aspects of construction. The course revolves around building projects in the Viroqua area. Major topics include concrete, stud and pole construction techniques, roof coverings, external coverings, and trim work.

## CONSTRUCTION II (1 credit)

## Prerequisite: Construction I

This class runs concurrently with Construction I. Members of this class will be group leaders (foremen) for the Construction I class.

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#### Abstract

ART

\section*{TWO-DIMENSIONAL ART AND DESIGN (1 credit)}

Students will experiment with various media and learn basic techniques in the studio areas of relief printmaking, screen printing, acrylic and watercolor painting, drawing, and stained glass. This class will explore how artists create by examining the art processes of known artists and applying what is learned to original artworks.


## THREE-DIMENSIONAL ART AND DESIGN (1 credit)

Students will experiment with various media and learn basic techniques in the studio areas of hand-built and wheel thrown ceramics and different forms of additive and subtractive sculpture (wire, soapstone carving, mixed media). This class will explore how artists create by examining the art processes of known artists and applying what is learned to original artworks.

## DRAWING (1 credit)

Basic drawing skills and design concepts will be introduced and practiced. A broad variety of styles and media will be explored by drawing still-life arrangements, scenes in perspective, and the face and figure using materials like graphite, charcoal, pen, pastels, and colored pencils.

## ARCHITECTURE (1 credit)

Students will explore Architecture of the past and present by learning about historical styles, drawing elevations and floor plans, designing models using Goggle SketchUp, and building structural models by hand.
This class runs every other year.

## ADVANCED ART (1 credit)

## Grades 11-12

Advanced Art is a class for a junior or senior student who has already taken two or more art classes and is seeking more challenging projects. This class would be taught within an already existing class and would require more responsibility and independence by the student. Topics covered in this class will typically include advanced techniques on the pottery wheel, screen printing, relief block printing, acrylic painting, wire sculpture, and collage. It is highly recommended that students take 2D Art and 3D Art prior to taking Advanced Art, and permission from the teacher is required.

## BUSINESS EDUCATION

## INTRODUCTION TO BUSINESS ( 1 credit) *Students will receive 3 credits at Western Technical College for

 completing this course.This course provides an introduction to the organization and operation of the business enterprise system in the American economic system. It will focus heavily on entrepreneurship. Students will be involved in surveying management, marketing, production, accounting, finance, administrative support, risk management, and career exploration. Microcomputers will be utilized to quantify business decisions. A culminating project is the development of a small business enterprise presentation.

COMPUTER APPLICATIONS ( 1 credit) *Students will receive Western Technical College credit for completing this course: $\mathbf{3}$ credits Software Applications for Business, 1 credit Introduction to MS Word, and 1 credit Introduction to MS Excel.
This course prepares students to work with Microsoft Office 2013 in a career setting or for personal use. Using courseware that incorporates an accelerated, step-by-step, project-based approach, students develop an introductorylevel competency in Word, Excel, Access, Publisher and PowerPoint. Students will also explore the essential features of other computer basics. These are skills that are highly prized in the marketplace.

ACCOUNTING I ( 1 credit) *Students will receive Western Technical College credit for completing this course: 4 credits Accounting Principles I.
It is recommended that a student have completed Algebra I with a "C" or better.
Accounting is a prerequisite for almost every business degree. Also, any person interested in a job straight out of high school will be much better prepared with an accounting course on their transcript. This course gives students the necessary background for careers in general business, accounting clerks, bookkeepers, and accountants. This course provides an understanding of the basic principles of the double-entry accounting system. Recording and posting transactions, preparing worksheets, income statements and balance sheets, payroll records, tax data, managing a checking account and reconciling a bank statement. Computerized data entry will also be a focus during this course.

## ACCOUNTING II (1 credit)

## Prerequisite: Accounting I

After students have completed Accounting 1 they have the option to take Accounting II which will be offered during the same class period. Accounting II includes an intensive study of the valuation and presentation of various accounts; cash receivables, inventories, plant assets and intangible assets. Generally Accepted Accounting Principles (GAAP) is discussed and extensive applications are made to chapter exercises and problems. Students will also complete a cumulative project using QuickBooks's computerized accounting software.

[^1]
## ENGLISH

## ENGLISH I (1 credit)

English I is required for all freshmen. This course focuses on grammar, literature, and forms of written and oral communication. Both fiction and non-fiction texts will be studied.

## ENGLISH II (1 credit)

English II is a required course for all sophomores. This course focuses on reading, writing, speaking, and listening. All texts require students to think deeply about both fiction and non-fiction. The class focuses on the writing process, communication skills, literary analysis, and comprehension of a variety of literature.

## ENGLISH III (1 credit)

English III is a required course for all juniors. This course offers students mastery in the standards of reading, writing, speaking, listening, and language. This course enables studies to comprehend and evaluate complex texts across a range of types of disciplines; construct effective arguments and convey information; build on others' ideas as well as articular ideas of their own; and demonstrate a command of English and acquire and use a wide vocabulary.

## ENGLISH IV (1 credit)

English IV is a continuation of English skills in the areas of composition, literature, and speaking. Topics and related literature will be selected based on the needs of the students.

## ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION (1 credit)

This is a senior level course intended for students going on to the college level. Underclassmen receiving a grade of B+ or above in English II may seek permission to take it earlier with a teacher recommendation.

This course has the potential to earn students both a high school English credit and advanced placement in college via the recommended AP exam in May. It is primarily a course in both effective writing and critical reading. Emphasis is on complex expository prose from various periods to study style and rhetoric. Students are expected to develop their own writing skills in expository, analytical and argumentative essays. Students will develop an awareness of the expressive potential of language along with the ability to utilize some degree of that potential in reading, writing and speaking.

## ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION (1 credit) <br> **This course will be offered for the first time in the 2024-25 school year. ${ }^{* *}$

This is a senior level course intended for students going on to the college level. Underclassmen receiving a grade of B+ or above in English II may seek permission to take it earlier with teacher recommendation. This class will run every other year.

This course has the potential to earn students both a high school English credit and advanced placement in college via the recommended AP exam in May. AP English Literature and Composition is an introductory college-level literary analysis course. Students cultivate their understanding of literature through reading and analyzing texts as they explore concepts like character, setting, structure, perspective, figurative language, and literary analysis in the context of literary works.

## FAMILY AND CONSUMER SCIENCES

## FAMILY AND CONSUMER SCIENCES (1 credit)

Family and Consumer Science (FACS) is an introduction to foods and clothing, which builds the foundation for Family and Consumer Sciences by defining the family and the work of the family. Emphasis is placed on the artistic and scientific aspects of FACS. FACS related careers will be investigated.

Students will become proficient in assessing consumer choices, in making nutrition-based food choices, in using equipment and in food preparation. Students will also become proficient in using sewing machines, in basic construction techniques, in caring for clothing and in being a wise consumer. Clothing and leisure-time activities projects will be constructed in this introduction to construction and fashion.

Housing opportunities are also explored.

## INFANT AND TODDLER DEVELOPMENT

## Grades 10, 11, 12

Infant and Toddler Development will give students a strong understanding of the growth and change process in children, beneficial to those planning to raise children or interested in working with children in any capacity in a future career. Topics covered include thinking about children; parenting and families; understanding child development theories; prenatal development; preparing for birth and the birth process; understanding and caring for infants; development from birth to 36 months.

## FOODS/NUTRITION ( 1 credit)*

## Grades 10-12

Foods and Nutrition is a comprehensive study of foods and their relationship to people. Students will learn to select recipes, prepare market orders, shop, and store food products. A variety of food topics include meats and poultry, dairy products, fruits and vegetables, bread and cereals, and sugars. A factory unit with emphasis on food production and sales is completed. Special food units explored - i.e., gingerbread houses, job shadowing, and demonstrations.

## FOOD SCIENCE (1 credit)

## Grades 11-12

This course is design to explore the realm of science within a food element while earning a science credit. Basic science concepts such as food safety, chemistry, processing, microbiology, preservation and physics will be applied throughout the term. Learning is structured to explore scientific principles through food labs and experimentation. This course is approved as a science-equivalent credit course.

## FAMILY LIVING ( 1 credit)

## Grade 12

Family Living is a course designed to give students support and hope at a time when many families are troubled. Emphasis is placed on the importance of families to each individual student, accepting responsibility for self, family and friends, and strengthening decision-making skills for personal choices. Problem solving techniques are explored through critical thinking skills. This class attempts to provide a safe environment for students to explore sensitive topics.

## FOREIGN LANGUAGE

## SPANISH I (1 credit)

Spanish I begins with basic conversation. Throughout this course students are encouraged to utilize conversations in various situations. Basic grammar is introduced, and knowledge of vocabulary is important. The students write and translate simple stories and conversations. They are introduced to parts of Spanish and Mexican culture, geography and song through technology, texts, and workbooks.

## SPANISH II (1 credit)

## Prerequisite: C or better in Spanish I

Spanish II continues the study of the Spanish language through conversation. More grammatical structures are introduced and spoken. Students translate, learn grammar and vocabulary through use of technology, textbook, and workbook. Extensive review occurs at the beginning of the semester. Students use the information they have learned in class to produce various projects and experiences. Students who complete this course can converse with Spanish speaking persons (native speakers).

## SPANISH III (1 credit)

## Prerequisite: C or better in Spanish II

Spanish III continues the journey of acquiring more of the Spanish language, with a special emphasis on making the language more usable for communication, both oral and written. Reading takes on greater importance, as students explore articles, poetry, stories, children's books, and even very short novels. More in-depth grammatical structures are introduced and studied, as well as more specific vocabulary. Students will learn through the use of technology, textbook and workbook. Students use information from class to produce various projects in which they are able to demonstrate their understanding of the language. Students who complete this course can converse with native speakers with more ease.

## SPANISH IV (1 credit)

## Prerequisite: C or better in Spanish III

Spanish IV continues the journey of Spanish language acquisition. While very similar to the Spanish III class in organization and process, the differences are in depth and familiarity. Students gain even more fluency, polishing skills attained in earlier classes. At the same time, their understanding of the language, its structure and its grammar increases, boosting comprehension and allowing them greater ability to express themselves, both orally and in writing. Again, reading is an important component of this class. A portion of this class will be spent looking at students' futures in a foreign language and preparing them for that, with possible field trips to emphasize the importance of second language acquisition.

## GENERAL REQUIREMENTS

## INTRODUCTION TO PROBABILITY AND STATISTICS ( $\mathbf{1} / \mathbf{2}$ credit)

*Required Materials: Scientific Calculator and a 3 ring binder with loose-leaf paper
The purpose of the Probability and Statistics curriculum is to encourage student awareness of the importance of mathematics in the modern world. This course is an introduction to the study of probability, interpretation of data, and fundamental statistical problem solving. Students will explore and analyze data by observing patterns or the absence of patterns, interpret information from various displays, apply appropriate statistical models to infer information from data, and learn to use technology in solving statistical problems.

PERSONAL FINANCE ( $1 / 2$ credit) *Students will receive Western Technical College credits for completing this course: 3 credits Personal Finance
This course is designed to teach students how to prepare a wide range of financial records for personal and business use, and to become familiar with the procedures related to personal money management and to major areas of business. The students are required to create a budget and maintain an income and expense log. This course further lays the groundwork for basic accounting principles. Students are required to use PCs for a number of assignments.

## INTRODUCTION TO EDUCATION ( 1 credit) *Students will receive Western Technical College credits for completing this course: $\mathbf{3}$ credits Introduction to Education

This course allows students to take Western Technical College's Introduction to Education course at Viroqua High School earning credit at VHS and Western. Students will learn about the historical, philosophical and social foundations of education and delve into innovative theories and practices used in schools. An option to extend the learning consists of a hands-on Youth Teaching Youth placement in a Viroqua Schools classroom following completion of this course. Students interested in the careers of teaching, special education, paraprofessionals, school counseling, school social work, or school psychologist would benefit from this course.
*This course is transcripted with Western Technical College, which means the student receives Western Technical College credit for this course.

## MATHEMATICS

## PRE-ALGEBRA (1 credit)

*Required Materials: Scientific calculator, notebook, folder, and a ruler with metric and English units. Pre-Algebra is a course designed to develop the skills required to be successful in Algebra I/II. Mathematical content includes number sense, patterns and functions, problem solving, and connections to Geometry. Students will become proficient in signed numbers, decimals, fractions, number sense, ratios, proportions, percents, and solving multi-step and linear equations.

ALGEBRA I (1 credit)
*Required Materials: Scientific calculator, 3 ring binder with loose-leaf paper and a ruler with metric and English units.
This course will introduce the standard topics of algebra. We will develop the concepts of linear, exponential, quadratic, and absolute value functions through graphing, applications, problem solving and the use of technology. Additional concepts include linear sentences and systems, polynomials, and connections to geometry.

## ALGEBRA IA ( $1 / 2$ credit)

*Required Materials: Scientific calculator, 3 ring binder with loose-leaf paper and a ruler with metric and English units.
Together with Algebra IB, this course covers the same concepts that are learned in Algebra I. Algebra IA/IB is a slower paced alternative to Algebra I, with more time available to do projects and for students to ask questions. This course will introduce the standard topics of algebra. We will develop the concepts of linear and absolute value functions, equations, and inequalities. These concepts are developed through graphing, applications, problem solving and the use of technology.

## ALGEBRA IB ( $\mathbf{1 / 2}$ credit)

*Required Materials: Scientific calculator, 3 ring binder with loose-leaf paper and a ruler with metric and English units.
Together with Algebra IA, this course covers the same concepts that are learned in Algebra I. Algebra IA/IB is a slower paced alternative to Algebra I, with more time available to do projects and for students to ask questions. This course builds onto the concepts learned in Algebra IA. We will extend the concepts of linear functions and develop the concepts of exponential and quadratic functions through graphing, applications, problem solving and the use of technology. Additional concepts include linear systems, polynomials, statistics, and probability.

## GEOMETRY (1 credit)

## Prerequisite: Algebra I

* Required Materials: Scientific calculator, 3 ring binder with loose-leaf paper, compass, protractor and ruler with metric and English units
This course is a study of Euclidean and coordinate geometry, including relationships involving polygons and circles. Other topics in this course are lines, angles, transformations, trig ratios, congruency and similarity of polygons, area and perimeter of polygons, and volume and surface area of 3-dimensional solids. Throughout this study, we will emphasize forming and testing conjectures in an attempt to improve logical reasoning skills.


## ALGEBRA II (1 credit)

Prerequisite: To help ensure success in Algebra II, students must have earned a grade of C- or above in Algebra I and Geometry. Students who receive a passing grade below a C-in either Algebra I or Geometry may register for Algebra II with consent of both the Algebra I and Geometry instructors.

* Required Materials: TI-83+ graphics calculator, 3 ring binder with loose-leaf paper, and ruler with metric and English units.
The topics in this course are an extension of those covered in Algebra 1. Concepts covered include linear sentences and systems, matrices and matrix algebra, relations, radicals, quadratics, exponential, logarithmic, polynomial and rational functions. Problem solving and real-life applications are continuous themes throughout the course. Technology is used to investigate and verify algebraic findings. A TI-83+ graphics calculator can be contracted out to the student for the duration of the course. As long as the calculator is returned in working order with a package of four AAA batteries, there is no cost to the student for the use of the calculator.


## PRECALCULUS I (1 credit)

## Prerequisites: A grade of B- or better in Algebra II. Students who receive a passing grade in Algebra II that is less than a B- may register with consent of the Algebra II and/or Precalculus instructor.

* Required Materials: TI-83+ graphics calculator, straight edge, notebook, and folder.

This course is intended for those who have a thorough understanding of the mathematics in the prerequisite courses. Success in college level mathematics courses begins with a good understanding of algebra and trigonometry. One goal of this course is to help students further develop their understanding. Another goal is to use algebra and trigonometry to model real life problems. Technology will be used as a tool to explore, analyze, make conjectures and form generalizations. Concepts further developed include the basics of trigonometry and the following functions: linear, absolute value, quadratic, exponential, logarithmic, polynomial and rational. A TI-83+ can be contracted out to the student for the length of the course. As long as the calculator is returned in working order, along with a package of four AAA batteries, there is no cost to the student for the use of the calculator. If a student is going to take both precalculus I and II, it is beneficial to take precalculus I and precalculus II in the same year.

## PRECALCULUS II (1 credit)

## Prerequisites: Precalculus I and consent of the instructor.

* Required Materials: TI-83+ graphics calculator, straight edge, notebook, and folder.

This course is intended for those who have a thorough understanding of the mathematics in the prerequisite courses. Completion of this course will satisfy the college requirement of four years of high school mathematics. The trigonometry concepts will be further developed to include the graphs of the trig functions, solving of trigonometric equations, analytic trigonometry, vectors, parametric equations, and polar coordinates. Additional topics include matrices, systems of equations, conic sections, sequences and series, statistics, data analysis and probability. Technology will be used as an instrument to explore, analyze, make conjectures, and form generalizations. Also, throughout the course, many examples discuss algebraic techniques or graphically illustrate concepts that are used in calculus. A TI-83+ calculator can be contracted out to the student for the length of the course. As long as the calculator is returned in working order with a package of four AAA batteries, there is no cost to the student for the use of the calculator.

## ADVANCED PLACEMENT CALCULUS AB (1 credit)

## Prerequisite: Precalculus II and consent of the instructor.

*Required Materials: TI-89 graphics calculator, straight edge, notebook, and folder.
The curriculum that is covered is that specified by the College Board for the advanced placement exam along with additional topics. This curriculum includes analysis of graphs, limits of functions, asymptotic and unbounded behavior, continuity, derivatives, integrals, anti-differentation, application of derivatives and integrals, the fundamental theorem of calculus, and numerical approximations to definite integrals. Students who earn a 3 or more on a 5-point scale on the advanced placement exam have the opportunity to earn college credit. A graphics calculator can be contracted out to the student for the duration of the course. As long as the calculator is returned in working order with a package of four AAA batteries, there is no cost to the student for the use of the calculator.

## ADVANCED PLACEMENT STATISTICS (1 credit)

## Prerequisites: Algebra II (grade of $\mathbf{C}$ - or above) This course may be taken concurrently with Precalculus I, Precalculus II, or Advanced Placement Calculus.

*Required Materials: TI-83+ graphics calculator, straight edge, 3-ring binder with loose-leaf paper.
The curriculum that is covered is specified by the College Board for the advanced placement exam. The purpose of the class is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The curriculum includes four general themes: exploring data, sampling, and experimentation, anticipating patterns, and statistical inference. Students who earn a 3 or more on a 5 -point scale on the advanced placement exam have the opportunity to earn college credit. A TI-83+ graphics calculator can be contracted out to the student for the duration of the course. As long as the calculator is returned in working order with a package of 4 AAA batteries, there is no cost to the student for the use of the calculator.

## MUSIC

Music at Viroqua High School is structured around two main areas: Instrumental Music with the Concert Band and String Orchestra, and Vocal Music with the Concert Choir. Participation in Instrumental and Vocal music ensembles includes performances outside of the school schedule. Students need to be aware of these required performances prior to agreeing to participate.

## CONCERT BAND (1 credit)

Prerequisites: 1) All students must have prior band experience, or the consent of the instructor.
2) Students must be enrolled in the band at least one semester a year, or an audition must be completed before entering. Continuous enrollment is preferred.
The Concert Band is the Viroqua Area Schools premiere performance band, providing entertainment and learning experiences at the highest musical levels. The Concert Band begins the year as a part of the "Marching Blackhawks" and performs at all home football games and several area parades. The Concert Band, a class A performance ensemble, performs for several concerts \& music festivals throughout the school year, as well as for the VHS graduation ceremony. The Concert Band rehearses every day and band members are required to prepare lesson assignments. Pep Band is an assigned portion of the Concert Band experience, and students should expect to participate. There are several extra-curricular opportunities for band members, including Jazz Ensemble, Solo and Ensemble Festivals and numerous Honors Bands.

## JAZZ BAND (1 credit)

Prerequisites: 1) Concurrent enrollment in the Concert/Marching Band (exception for drums, guitar, bass, and piano), or consent of instructor.
The Jazz Band's design is to introduce students to the basic techniques of America's truly original art form-jazz. This is a performance ensemble that focuses on jazz history, techniques, articulation, style, and improvisation in the styles of Swing, Rock, Blues, Latin, Funk, \& Jazz Fusion, through listening to and playing as much music as possible. As a smaller ensemble, members are held to a higher level of performance, participation, and behavior. The Jazz Band may perform at school assemblies, evening concerts, festivals, and is also available to perform concerts for the community.

## STRING ORCHESTRA (1 credit)

Prerequisites: 1) All students must have prior orchestra experience, or the consent of the instructor.
2) Students must be enrolled in orchestra for at least one semester; yearlong enrollment is preferred.

This ensemble meets daily and consists of students in grades 9 through 12 who have prior experience playing a string instrument. Performances occur at least two times per year and attendance is required outside of the normal school day. Lessons are required and scheduled during the school day in addition to regularly scheduled class time. Extra-curricular groups available to orchestra students include various chamber ensembles as well as WSMA offerings such as state Honors, and Solo \& Ensemble.

## CONCERT CHOIR (1 credit)

Prerequisites: 1) All students must have prior choir experience, piano experience, or consent of the instructor.
2) Students must be enrolled in the Concert Choir for at least one semester per year; yearlong enrollment is preferred.
The Viroqua Concert Choir meets daily and is made up of 9th-12th grade high school students with prior singing experience. Concert Choir students perform at a class A-B performance level. This group competes at the regional Choral Large Group Festival. In addition to Large Group, the Concert Choir performs outside of the normal school day and attendance is required for all members of the ensemble. Extra-curricular groups available to choir students include High School Lessons, Musical, WSMA Solo \& Ensemble, Dorian Vocal Festival, and State Honors Choir.

## HEALTH/PHYSICAL EDUCATION

## HEALTH (1/2 credit)

This course emphasizes personal health assessment and the applications of specific health knowledge to personal health behavior. The purpose of the course is to encourage each student to achieve a high level of personal wellness, through understanding of deterrents to health, and the positive effects of good health practices, and to learn to put into use specific techniques for achieving desired personal health goals. The course is looked upon as a learning workshop experience rather than a simple lecture series. Many activities will be used by the students to:

1. Explore and measure current levels of physical and emotional health.
2. Assess personal health values, behaviors and lifestyles.
3. Identify the precursors of illness or high-risk behaviors.
4. Make available alternate strategies.
5. Teach methods of implementing alternate strategies if desired.

## FRESHMAN PHYSICAL EDUCATION

Freshman Physical Education will offer students a foundation of motor skill development in both team and individual sports. The classes will emphasis fundamental skills and strategies to be successful for the units within the 9 week class. Students will also focus on different fitness components within the class. Units include but are not limited to: Bowling, Archery, Fishing, Golf, Tennis, Cross-country Skiing, Dance/stunts/tumbling, Swimming, Recreational Games, Badminton/Pickleball/Table Tennis, Softball, Flag Football, Soccer/Speedball, Team Handball, Basketball, Volleyball, Ultimate Frisbee, La Crosse, Water Polo, and Floor Hockey.

## INDIVIDUAL SPORTS

Individual Sports will be offered to sophomores, juniors and seniors. This class will build on skills learned in Freshman PE. This class will emphasize sports that are played with a partner or solo. This class will go further in depth with rules, skills, and fundamentals. Units include, but are not limited to: Bowling, Archery, Fishing, Golf, Tennis, Cross-country Skiing, Dance/stunts/tumbling, Swimming, Recreational Games, and Badminton/Pickleball/Table Tennis.

## TEAM SPORTS

Team sports will be offered to sophomores, juniors, and seniors. The class will build on previous knowledge of skills and strategies to offer students a deeper understanding of concepts within the units. Students will also continue to build on fitness components within the class. This class is perfect for the students that are competitive and thrive on the team aspect of sports. Units include but are not limited to: Softball, Flag Football, Soccer/Speedball, Team Handball, Basketball, Volleyball, Ultimate Frisbee, Lacrosse, Water Polo, Archery, Fishing, and Floor Hockey.

## WEIGHT TRAINING

Weight Training is a course for students who wish to obtain the tools needed to become a knowledgeable lifter, and for those students who want to maintain and gain during the regular and off seasons. Students will perform many different types of lifts and programs to get an all-encompassing aspect of what can be done in the weight room to work on muscular strength and endurance. Students will be tested on important muscle groups in the body, and will be able to identify what muscles are being worked while performing certain lifts. People taking this course will also get and understanding of how different rest periods and repetitions change the outcome of a workout. Students will also write and design their own workout plans. All classes will take place in the weight room.

## SCIENCE

## PHYSICAL SCIENCE (1 credit)

Physical Science is an introductory course in physics and chemistry concepts. Students are engaged in a variety of activities that stress observation, measurement, problem-solving, and the use of technology. Topics include motion, forces, energy, waves, and matter.

## BIOLOGY (1 credit)

## Prerequisite: Physical Science

What are living things made of? Why do children resemble their parents? How do viruses cause illness? These are just some of the questions that will be answered in biology class. Students will also study and observe examples of the five major groups of living things: bacteria, protists, fungi, plants, and animals.

## ENVIRONMENTAL SCIENCE (1 credit)

In order to protect and preserve the environment, one must first understand the environment itself. Therefore, topics such as water quality, climate change, and wildlife populations will be studied both indoors and outdoors, with the hope that students will acquire a new sense of appreciation and respect for their surroundings. Students will also examine how the actions of humans have impacted the environment. The idea of conservation, or "wise and efficient use of natural resources," will be an important focus throughout the class.

## ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE (1 credit)

## Prerequisite: A grade of B or above in Physical Science and Biology; Algebra I and Chemistry I are recommended, but are not required. Students may not take both Environmental Science AND Advanced Placement Environmental Science for credit.

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Students will use a college-level textbook and complete coursework that will help prepare them to take the AP Environmental Science exam in May. Most colleges award credit to students scoring well on this exam.

## CHEMISTRY I (1 credit)

All sciences are related to and dependent on chemistry because everything is made of atoms. To be an expert in any area of science requires at least some knowledge of chemistry. Therefore, students majoring in any area of science in college, including health care and engineering, will be required to take at least one or two semesters of college chemistry. Many colleges require students to take a high school lab science like chemistry in order to be accepted into the college. Topics include physical and chemical properties, atomic and molecular structure, acids and bases, stoichiometry, chemical bonding and equilibrium.

## CHEMISTRY II (1 credit)

## Prerequisite: Chemistry I

Chemistry II is a continuation of Chemistry I. Students will spend much of their time performing fun and interesting laboratory experiments in the chemistry lab. Upon completion of this class, students should be very well prepared to take a college chemistry class. Topics include thermochemistry, organic chemistry, acids and bases, reaction kinetics, equilibrium and electrochemistry.

## PHYSICS (1 credit)

This course is designed to prepare students for a large variety of careers, not just engineering! Students will improve problem-solving skills, use technology, and participate in fun and interesting lab activities while investigating the concepts of motion, force, and energy. One of the favorite activities of many students is the Annual Physics Regatta in which students design and build boats out of nothing more than cardboard and duct tape!

## HUMAN ANATOMY AND PHYSIOLOGY I (1 credit)

Would you like to learn how your body works? Join us in an interesting exploration of the anatomy (the parts) and the physiology (how the parts work) of the human body. Students will be involved in many fun lab activities while learning how various organ systems function. We will also look at clinical conditions which affect some individuals. The organs we will study include the skeletal, muscular, cardiovascular and nervous systems. Students will learn how to tape ankles and other joints like an athletic trainer. You will learn how to check blood pressure and lung volume and will be involved in many other hands-on learning activities. Join us on fun field trips to the UW-La Crosse Human Performance Lab, Gunderson-Lutheran Hospital, and Vernon Memorial Hospital Physical Therapy and Cardiac Rehab Departments. This class is for anyone interested in learning more about the human body and is especially helpful for anyone considering a career in human or animal health care.

## HUMAN ANATOMY AND PHYSIOLOGY II (1 credit)

Prerequisite: Human Anatomy and Physiology I. This is a continuation of Human Anatomy and Physiology I. We will be studying the organ systems not covered in Human Anatomy and Physiology I. This would include the urinary, digestive, endocrine, lymphatic, respiratory and integumentary systems. Students will study the anatomy and physiology of each system as well as clinical conditions and how those conditions are treated by medical professionals.

## INTRODUCTION TO MEDICAL TERMINOLOGY \& HEALTHCARE CAREERS* (1 credit) Students will receive Western Technical College credit for completing this course: 3 credits Introduction to Medical Terminology.

Students will study the basic anatomy and physiology for each system of the body. We will also discuss clinical conditions affecting each system as well as the diagnostic and treatment procedures associated with the conditions. There is an emphasis on learning the meanings of the prefixes, roots and suffixes used in medical terminology. For each system of the body, there is a field trip to Vernon Memorial Hospital where doctors and other health care providers talk to the class about the body system, related terminology, clinical conditions, diagnostic procedures and treatments.
*This course is transcripted with Western Technical College, which means the student receives Western Technical College credit for this course.

## SOCIAL STUDIES

## UNITED STATES HISTORY 9 ( 1 credit)

Ninth grade students are required to take U.S. History. In this course, students review early U.S. History, starting with the colonization period through the Revolutionary War. History in this time frame will be viewed through the lens of political events and the formation of our nation's government, with an overview of the branches of government, political parties, and 19th century through World War I. The focus of the second half of United States History 9 is the period of time from 1920 until the present, which includes a sequential approach to historical events. Throughout the class, students will make connections between historical events and their own lives, creating relevance and meaning. Current events are utilized to further the growth of citizenship skills, and to connect past with present. The use and interpretation of primary sources, graphs, and maps, as well as student projects, simulations, games, debates, and discussions will provide important skills and understanding.

## WORLD HISTORY (1 credit)

Tenth grade students are required to take World History. The course begins with early river valley civilizations, discusses classical civilizations in Greece, Italy, and China, then dives into the middle ages in Europe and Southwestern Asia. Finally, the course discusses the sweeping changes in Europe, starting with the Renaissance and culminating on the eve of World War I. A primary purpose of World History will be to explore our own precedents in terms of law, government, religion, and social structures. Students of World History will review background and the foundations that link the United States to other world cultures. The use and interpretation of primary sources, graphs, and maps, as well as student projects, will provide important skills and understanding.

## WORLD GEOGRAPHY (1 credit)

This course is dedicated to a study of the world around us. The class starts with an introduction to geography, in which students will learn the five themes of geography, the features that define the earth, the climate patterns of the earth, how to study peoples and cultures of the earth and how to use various geographic tools. Students will use the skills they have learned and apply them to the ten regions of the world we will be studying (Example: North America, Europe, East Asia, Etc.). In addition, the students will look at the physical features of those areas (land, climate, and types of vegetation). Each area will also be addressed in terms of its culture, which includes studies of population patterns, history and government, and cultures/lifestyles. Students will analyze media sources, graphs, and maps; student presentations will be a major part of each unit.

## SOCIOLOGY/PSYCHOLOGY (1 credit)

## Grades 10-12

The purpose of this class is to provide students with a survey of both Sociology and Psychology. Sociology is concerned with the study of humans in groups. This course focuses upon the aspects of human behavior, the way human groups are organized and how they function and change. It also deals with how human behavior is affected by interaction with other human beings through the process of group living. The Psychology portion of the class is designed to introduce students to the scientific study of the behavior and mental processes of human beings and animals. The focus is on the internal mental processes and they are affected by external factors. Students also investigate how thinking changes over the maturation process. The basic elements of Psychology are studied and connected to personal experiences and activities.

## ECONOMICS (1 credit)

## Grades 11 or 12

Economics provides students with an opportunity to accomplish three things: study basic principles of micro and macro economics, learn about the American free enterprise system, and explore their roles as citizens, producers and consumers. Basic principles include how limited resources may be most efficiently utilized in order to serve the unlimited wants of humans, how markets determine price and how opportunity costs influence decisions in business, government and for individuals. The conflict between unlimited wants and limited resources is the central problem of any economy. Students will learn how the free enterprise system answers this problem. Furthermore, students will compare and contrast other economic systems. Finally, students will gain hands-on experience through simulations dealing with the stock market, and run a fictional computer simulated company.

## ADVANCED PLACEMENT UNITED STATES HISTORY (1 credit)

## Grades 11-12

Advanced Placement United States History is a college level course designed especially for the high school student. The major objective of this course is to prepare each student for college expectations of critical thinking, reading skills, and writing skills. Secondly, the course is designed in preparation for Advanced Placement U.S. History test through which college credit may be gained. Toward these ends, the course provides a thorough grounding in relevant facts an examination of their context and historical significance. Reading of primary and secondary sources analytically and critically is emphasized in order to weigh historical evidence, make interpretations, and arrive at logical conclusions. Students will become familiar with the use and interpretation of maps, statistical tables, as well as pictorial and graphic materials. In addition, students will also learn to express their ideas clearly and concisely in their writing, class discussions, debates, simulations and various role playing situations.
This class runs every other year.

## ADVANCED PLACEMENT PSYCHOLOGY (1 credit)

## Grades 11-12

Advanced Placement Psychology is a college level course designed especially for the high school student. The major objective of this course is to prepare each student for college expectations of critical thinking, reading skills, and writing skills. Secondly, the course is designed in preparation for Advanced Placement Psychology test through which college credit may be gained. Toward these ends, students will participate in activities, simulations, investigations, and discussions about the nature of human and animal behavior. The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

## TECHNOLOGY EDUCATION

## EXPLORING TECHNOLOGY (1 credit)

This project-based course gives students experience in multiple areas that VHS offers in the field of technology including, but not limited to: construction, welding, graphic \& web design, programming, engineering, video production, boat building and possibly other areas. Exploring Technology also acts as a great introductory course for future Technology Education classes.

## HOME \& AUTO MAINTENANCE I (1 credit) <br> \section*{Grades 10-12}

Home \& Auto Maintenance is a course designed to give students a working knowledge and appreciation of maintaining a residence and an automobile. In this class, the students will learn how to identify and use common hand and power tools; identify all the major parts and basic maintenance and repair of small engines, and basic automotive repair. Students will also learn how to identify and check basic residential home mechanical systems (plumbing, heating and electrical) and some basic home repair skills (drywall, flooring, siding, roofing). Students will also learn about alternative power systems (solar, water, wind), pneumatic and hydraulic power systems.

## DESIGN \& MANUFACTURING ( 1 credit)

## Grades 11-12

## Prerequisite: Grade of C or better in Woods I or Basic Metals or consent of instructor

Design \& Manufacturing class gives students the opportunity to work with local businesses and individuals to create customized products. The course is designed to give students hands-on experiences in the planning, developing, and operating of a student enterprise within an educational environment. Students will research, develop, produce, and market a product which they have deemed feasible and profitable.

## BASIC METALS (1 credit)

## Grades 10-12

Basic metals class covers a wide range of different metals processes and theories. Students will study and experience metal properties, materials, and processes. This course allows for a large amount of time spent in the metals lab working on a series of projects. Some projects include fabrication of a screwdriver, heat treatment of steel, sheet metal box, milling/turning operations, forging, CNC plasma cutting and casting operations. Another large part of the lab activities includes SMA, MIG, Oxy-Act, Resistance, and TIG welding. This class is a very informative and useful class for all students of all skill levels. Career opportunities in the metal industry will also be covered in this course.

## ADVANCED METALS (1 credit)

## Grades 11-12

## Prerequisite: Grade of $\mathbf{C}$ or better in Basic Metals

Advanced Metals is a course designed to give students an in depth look at metal, its properties, its microstructure, and its manipulation processes. This course includes many of the same lab experiences as Basic Metals, but with more refined techniques and a higher skill level. Some examples include multi position welding, part fabrication, lost foam casting, and an individual project. This class is for any student with an interest in a higher-level metallurgical study class. Basic Metals is strongly encouraged for students interested in joining Advanced Metals. Career opportunities in the metal industry will also be covered in this course.

## WOOD MANUFACTURING I (1 credit)

## Grades 10-12

This course is designed for those students interested in wood manufacturing. This course includes tool and machine safety, wood characteristics and use of adhesives. Students will learn machine operations, joint construction, basic furniture construction and proper ways to finish projects. Students will choose one of three project ideas to complete, using proper techniques learned during the class time.

## WOOD MANUFACTURING II (1 credit)

## Grades 11-12

## Prerequisite: Grade of C or better in Wood Manufacturing I

Manufacturing II is an advanced woodworking class. Students will study in detail various methods of furniture construction. Tool safety, joint construction and adhesive technology will be reviewed. Also advanced machine construction and new techniques including the development of jigs and fixtures will be incorporated into the building of a project chosen and designed by the student. Furniture design and furniture styles will be explored. Various finishing techniques will be discussed prior to completing their project.

## GRAPHIC COMMUNICATIONS I ( 1 credit)

## Grades 10-12

This course provides an introduction to graphic communications. Students will do many different activities, including desktop publishing, digital photography, photo-manipulation, web page design, computer illustrations, audio and video creating and editing. There is a $\$ 15.00$ lab fee to offset the costs of media.

## GRAPHIC COMMUNICATIONS II (1 credit)

## Grades 11-12

## Prerequisite: Grade of B or better in Graphic Communications I

This course is an in-depth look at the areas covered in Graphic Communications. Students will have many activities to do. This class is intended for students that are self motivated and enjoy graphic communications. There is a $\$ 15.00$ lab fee to offset the costs of media.

## CONSTRUCTION I* ( 1 credit)

## Grades 11-12

This class is designed to provide students with the hands-on activities involved in the many aspects of construction. The course revolves around building projects in the Viroqua area. Major topics include concrete, stud and pole construction techniques, roof coverings, external coverings, and trim work.

## CONSTRUCTION II (1 credit)

## Grades 11-12

## Prerequisite: Construction I

This class runs concurrently with Construction I. Members of this class will be group leaders (foremen) for the Construction I class.

## COMPUTER AIDED DESIGN \& ENGINEERING I (1 credit)

This course introduces the student to the CAD system. The student will receive "hands-on" training and will develop the techniques that are essential in today's job market. The student will learn how to adapt basic technical drafting techniques to computer generated drawings of the various drafting disciplines. The student will learn how to adapt the principles of descriptive geometry when applied to "real-world" applications, involving using the CAD system to create Isometric and 3-D drawings. The student will have the opportunity to work on drawings used in various technical fields, such as mechanical engineering, architecture and electronics. Students will complete engineering related projects where they have to create a design brief.
*This course is transcripted with Western Technical College, which means the student receives Western Technical College credit for this course.

## COMPUTER AIDED DESIGN \& ENGINEERING II (1 credit)

## Prerequisite: Computer Aided Design \& Engineering I

In this course, the student will combine all the skills and technique of the previous course to plan and develop a project. The student will learn current production techniques while developing the project. Students will work with 3d modeling software in this course as well.
This course is transcribed with Western Technical College. This means the student receives Western Technical College credit for this course.

## WEB DESIGN \& PROGRAMMING (1 credit)

## Grades 10-12

This class is computer based and project based. Students will learn how to build websites in HTML, CSS and JQuery. They will also learn the design and layout by building websites on user friendly websites like, wix.com or wordpress.com with no code. During the second half of the class, students will learn basic programming in a language very similar to Java. This class will also cover game creation in Scratch and touch on app development. The last month of the semester, there will be a final. Students will choose their favorite area and create a final project that should be up and running.

## VIDEO PRODUCTION (1 credit)

## Grades 11-12

This course is designed for students who are interested in videography. Students will storyboard, shoot, and edit video, as well as learn about different lighting and composition techniques used. Time outside of class may be required to complete projects.

## YEARBOOK ( 1 credit)

## Grades 11-12

This course will offer students the opportunity to use their computer knowledge, communication skills, team working skills and creativity to create the yearbook. Students will learn the software used to create the individual pages and how to use digital cameras as they design and create the pages that make up our school's yearbook.

## YOUTH APPRENTICESHIP

Youth Apprenticeship (YA) integrates school-based and work-based learning to instruct students in employability and occupational skills defined by Wisconsin industries. Local programs provide training based on statewide youth apprenticeship curriculum guidelines, endorsed by business and industry. Students are instructed by qualified teachers and skilled worksite mentors. Students are simultaneously enrolled in academic classes to meet high school graduation requirements, in a youth apprenticeship related instruction class, and are employed by a participating employer under the supervision of a skilled mentor.

Visit the Department of Workforce Development website at https://dwd.wisconsin.gov/apprenticeship/yaapplicants.htm for additional information.

Junior or Senior standing is required for all Youth Apprenticeships. The following Occupational Pathways available for Youth Apprenticeships:

## AGRICULTURE, FOOD \& NATURAL RESOURCES

Careers involve working with plants, animals, and the environment.

## ARCHITECTURE \& CONSTRUCITON

Careers involve designing and building homes, roads and other structures.

## ARTS, A/V TECHNOLOGY \& COMMUNICATIONS

Careers involved creative tasks, such as performing or writing.

## FINANCE

Careers involve managing and working with money.

## HEALTH SCIENCES

Careers involve helping people and animals with the medical care they need to get or stay healthy.

## HOSPITALITY \& TOURISM

Careers involve providing people with food, lodging and related services.

## INFORMATION TECHNOLOGY

Careers involve solving problems through research and design.

## MANUFACTURING

Careers involve making products, such as food, cards, and household goods.

## MARKETING

Careers involve promoting and selling products and services.

## SCIENCE, TECHNOLOGY, ENGINEERING \& MATHEMATICS (STEM)

Careers involve solving problems through research and design.

## TRANSPORTATION, DISTRIBUTION \& LOGISTICS

Careers involve moving people and products from one place to another.
This apprenticeship would include an evening Western Technical College credit course offered at Sleepy Hollow in Viroqua.

## YOUTH TEACHING YOUTH

## YOUTH TEACHING YOUTH

Grade 12
Students are admitted into the Youth Teaching Youth (YTY) program with teacher permission and principal approval. Students must have the signature of their supervising YTY teacher on their course registration form.
This course allows seniors to get involved in a leadership role in the classroom in all high school departments. YTY students should possess above-average knowledge in the subject area. YTY students may be used for tutoring, giving periodic class presentations on areas under study, individual projects, and may be taught to develop their own assessments for use in the classroom. Specific course objectives are provided by the supervising teacher.


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