



# FOREST PARK COURSE DESCRIPTIONS

2017-2018

# **Social Studies**

## **6<sup>th</sup> Grade Social Studies**

We will concentrate on study skills, outlining and mapping as we learn about world culture from the western hemisphere. Students will study and analyze the various western world cultures and be able to analyze and focus on the key elements of those cultures. The 5 themes of geography will be learned first and used as a guide to study the world cultures. We will discuss similarities and differences among the world cultures and relate them to that of the United States.

## **7<sup>th</sup> Social Studies**

Eastern Hemisphere allows the student to study earth's physical and human geography. There will be an emphasis on Europe, Africa, Asia, and the Pacific area. The student will be given the opportunity to research European cultures and compare and contrast those cultures with the ones they have. They will also be required to learn to outline properly and take notes from the chapters. Current events will also be discussed as they relate to their life. The 5 themes of geography will be learned first and used as a guide to study the world cultures.

## **8<sup>th</sup> Social Studies**

Eighth grade social studies is a general overview of American History. The course covers the development of the United States from exploration to World War I. The class will provide students with the background knowledge, concepts, values and skills to become effective citizens. We will concentrate on study skills and outlining. Students will be able to look at information and be able to analyze the information and focus on the key elements of the topic(s) discussed. The class will also focus on the Constitution and the core democratic values which are the foundation/cornerstone of the United States of America.

## **American History and Geography**

This course is intended to build upon previous course work in United States history beginning in 1865 to the present. Emphasis is placed on reconstruction of the United States after the Civil War, the emergence of the United States as a world power, and its foreign policy, economic development and growth, as well as political, social, and cultural developments of the nation through the twentieth century. Students are provided with the opportunity to understand and appreciate democratic values, beliefs and responsibilities. Social studies skills including, but not limited to, reading, writing, organization, analysis, note taking, discussion and critical thinking are applied within this chronological survey. Social Studies strands of history and geography are themes throughout the course.

## **World History and Geography**

This course introduces the student to the major cultures of the world and builds on previous course work in Western and Eastern Hemisphere studies at lower grades. Emphasis on 10<sup>th</sup> grade is placed on the impact of religion, geography, politics, and economics on the development of these cultures. This course includes an overview of Eastern and Western Europe, the Far East, North Africa and the Middle East, and other areas in relation to these locations. These topics are studied with a geographic and chronological framework which is intended to help the student understand the interrelationships between current cultures as well as historical events, which have resulted from internal and external causes.

## **Government**

This course is a study of the structure and functions of the U.S. federal government. Students will study the foundations of the U.S. government system, including: the Constitution and Bill of Rights, the Political Party system, and current political issues. The legislative, executive, and judicial branches will be covered in depth, including: qualifications, duties and changing roles and responsibilities. Core Democratic Values will be referenced.

## Economics

This course is a study of classical economics and Keynesian economics. Micro and Macro-economics are studied using supply and demand models and how and why households, business firms, and units of government make choices. Emphasis will be placed on fiscal and monetary policies, price systems, and international trade.

## Mathematics

**Math 6:** Students in sixth grade mathematics will focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking. Students will cover the following units that align with the common core state standards: algebraic reasoning, integers and rational numbers, applying rational numbers, patterns and functions, proportional relationships, percents, collecting, displaying, and analyzing data, and geometric figures.

**Math 7:** Students in seventh grade mathematics will focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples. Students will cover the following units that align with the common core state standards: principals of algebra, rational numbers, graphs, functions, and sequences, exponents, ratios, proportions, and similarity, percents, foundations of geometry, and perimeter, area, and volume.

## **Algebra 1**

Students in Algebra 1 will focus on three critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem. Students will cover the following units that align with the common core state standards: foundations for algebra, equations, inequalities, functions, linear functions, systems of equations and inequalities, exponents and polynomials, factoring polynomials.

## **Algebra II**

**Credit:** 1

**Grade:** 9, 10, 11 or 12

**Prerequisites:** Algebra I

Algebra II will reinforce concepts of Algebra I and include new studies of linear equations, factoring, rational expressions, quadratic equations, imaginary and complex numbers, radicals, proportions, and statistics.

## **Pre-Calculus, Concurrent Enrollment through Northern Michigan University**

**Credit:** 1

**Grade:** 11 or 12

**Prerequisites:** A grade of B or better in Algebra 2 and Instructor Approval

This course is intended to lay the groundwork for further study of mathematics at the high school and college levels. Emphasis is placed on discrete mathematics and data analysis to develop students' quantitative reasoning and problem-solving skills. Pre-Calculus includes algebraic topics of linear equations, quadratic equations, higher degree polynomials, functions, exponential functions, function properties and graphing. Pre-Calculus includes a semester study of Trigonometry. Topics include circumference, circle area, angles, cosine, sine, tangent, cosecant, secant,

cotangent, right-triangle and non-right triangle trigonometry, identities, polar coordinates and graphing.

## **Calculus, Concurrent Enrollment through Northern Michigan University**

**Credit:** 1

**Grade:** 12

**Prerequisites:** A grade of B or better in Pre-Calculus and Instructor Approval

This course places emphasis on integrated and motivational applications which are designed to show the real-world relevance of calculus topics and concepts. Emphasis is placed upon: Functions, graphs, limits, differentiation and applications of the derivatives, integration techniques and applications, trigonometric functions, and polynomials and functions of several variables.

### **Pre-Calculus**

**Credit:** 1

**Grade:** 11 or 12

**Prerequisites:** Algebra II and Geometry

This course is intended to lay the groundwork for further study of mathematics at the high school and college levels. Emphasis is placed on discrete mathematics and data analysis to develop students' quantitative reasoning and problem-solving skills. Pre-Calculus includes algebraic topics of linear equations, quadratic equations, higher degree polynomials, functions, exponential functions, function properties and graphing. Pre-Calculus includes a semester study of Trigonometry. Topics include circumference, circle area, angles, cosine, sine, tangent, cosecant, secant, cotangent, right-triangle and non-right triangle trigonometry, identities, polar coordinates and graphing.

### **Applied Calculus**

**Credit:** 1

**Grade:** 12

**Prerequisites:** Pre-Calculus

This course places emphasis on integrated and motivational applications which are designed to show the real-world relevance of

calculus topics and concepts. Emphasis is placed upon: Functions, graphs, limits, differentiation and applications of the derivatives, integration techniques and applications, trigonometric functions, and polynomials and functions of several variables.

## **Consumer Math**

**Credit:** 1

**Grade:** 11 or 12

**Prerequisites:** Algebra I

Consumer Math will apply basic math operations to real life situations including wages, taxes, checkbooks, credit, interest, profit, business, advertisements, stocks, travel, and measurement.

## **English Department**

**Language Arts 6** has a stress on grammar and sentence structure. Also explored in the class are several novels and other forms of literature with a concentration on the classics. To accompany these will be several types of writing, speaking, and discussing. As follow-up to units, projects of varying natures will be explored and completed.

**Language Arts 7** has a stress on novels both classics and those considered the “new classics.” This class will introduce literary terms and devices from various forms of literature and begin to use those for discussion purposes. There will be units in poetry, short stories, myths and fables, and drama in which extra terms/devices will be introduced. Accompanying each unit will be a writing assignment or project. There will be at least one speaking assignment.

**Language Arts 8** has a stress put on the different genres of literature and the similarities and differences to the others. There will also be a stress put on the terms introduced in LA7 and utilizing those in discussion. There will be several writing projects for varied purposes, speaking assignments, and other varied projects accompanying the units. The units include poetry, drama, short stories, non-fiction narrative, and novels.

## **English 9**

The 9<sup>th</sup> grade English curriculum is designed to explore a variety of genres including, but not limited to short stories, novels, plays, and poetry. The 9<sup>th</sup> grade coursework aims to expose students to diverse methods of examining literature while developing a broad vocabulary of important literary terms that will allow them to interpret various works of literature in future English courses. Students in 9<sup>th</sup> grade English will also learn to distinguish important organization and rhetorical skills along with a strong basis for accomplishing higher-level thinking, logic and reasoning skills, as well as the foundations necessary to produce good writing.

## **English 10**

The 10<sup>th</sup> grade English curriculum is designed to reinforce the basic foundations set forth in the 9<sup>th</sup> grade English curriculum. Through the examination of various works of literature, students will develop strong analytical skills necessary to improve both reading comprehension and to create cohesive responses through writing.

## **English 11**

The 11<sup>th</sup> grade English curriculum is designed to strengthen the skills acquired through both 9<sup>th</sup> and 10<sup>th</sup> grade English. Students will explore the evolution of the English language and be exposed to various works of British literature. Students will also enhance their abilities to comprehend complex writing as well as their capacity to formally construct an organized response utilizing research components.

## **English 12**

The English 12 curriculum follows the new Common Core State Standards with a focus in American literature. Content ranges from pre-colonial oral traditions through the present with modern poetry and the short story genre. Throughout the course focus is placed on critical thinking processes and writing at a college level. Skills learned will build towards an in-depth cumulative research paper.



# **Foreign Language**

## **Spanish 1**

Spanish I is an introductory, base-level, foreign language class. In accordance with the Michigan World Language State Standards, this course focuses on preparing students with the necessary abilities and skills in Spanish to display a basic proficiency in writing, reading, speaking, and listening in Spanish. Among other things, various Spanish speaking cultures will also be explored to give them a better understanding of the Spanish language. Passing this course counts for one year of the Michigan's required two years of a foreign language.

## **Spanish II**

Spanish I is a pre-requisite to enter this course. Improving and adding upon the basic concepts learned in Spanish I, Spanish II begins to look at the more advanced grammar and language concepts, while continuing to supplement the language portion of the course with a variety of cultural lessons. In accordance with the Michigan World Language State Standards by the end of the course the students will be at an advanced beginner proficiency level in writing, reading, speaking, and listening in Spanish. They will also have a much better grasp of Spanish culture.

## **Spanish III/IV**

Spanish III-IV will continue to work on proficiency in writing, reading, speaking, and listening to the Spanish Language. Students will continue to learn the Spanish culture.

# **Science Department**

## **Science 6**

Prerequisites: EL Science

This course concentrates on the fundamentals of science, as well as each of the three fields of science (Physical, Life, and Earth). We study the scientific method, scientific writing, metrics, and data

analysis. Students complete a research project on a science question of their choice to introduce the class to each of the fields of science. Physical science focuses on matter and energy, looking specifically at kinetic and potential energy, energy transfer, and changes in states of matter. Life science focuses on ecosystems, looking specifically at producers, consumers, and decomposers, interactions and relationships of organisms, biotic/abiotic factors, and environmental impacts of organisms. Students will be involved in the rearing of trout in the classroom as a real-world application of the ecology standards. Earth science will focus on the composition, properties, and changes of the Earth, looking specifically at rocks, soil, magnetic field of the Earth, plate tectonics, fossils and geologic time. Real-world examples are used throughout the course to supplement the MI standards.

## Science 7

Prerequisites: 6<sup>th</sup> Grade Science

This course reviews the fundamentals of science, as well as concentrates on each of the three fields of science (Physical, Life, and Earth). We review the scientific method, scientific writing, metrics, and data analysis. Students complete a research project on a science question of their choice to review each of the fields of science. Physical science focuses on waves and energy, looking specifically at waves and solar energy. Students will use the photovoltaic solar panel at Forest Park as a real-world application of solar energy. Physical science will also focus on the physical and chemical properties and changes in matter, looking specifically at chemical properties and changes, and elements/compounds. Students will complete a formal lab write-up as part of the chemical change unit. Life science focuses on the structures and processes of living things, looking specifically at cell functions, growth and development, and photosynthesis. Earth science will focus on the fluid Earth, looking specifically at solar energy, water cycle, atmosphere, weather/climate, and human consequences. Real-world examples are used throughout the course to supplement the MI standards.

## **Earth Science**

Prerequisites: 7<sup>th</sup> Grade Science

Earth science is a course designed to prepare students for advanced science classes, as well as provide a fundamental understanding of the concepts of Earth science. The course starts with the organizing principles of Earth Science looking at Earth systems and biogeochemical cycles. The class then focuses on geology, looking specifically at earthquakes and Earth's interior, plate tectonics and volcanism, rock forming processes, and Earth history. The course then moves to meteorology and climatology, looking specifically at severe weather, oceans and climates, and climate change. Hydrogeology and resource/environmental challenges are the next units in the class. The last two units involve astronomy, looking specifically at cosmology and Earth's place in space as well as the Sun and stellar evolution. Real-world examples are used throughout the course to supplement the MI standards. Concepts will include real-world applications, scientific writing (formal lab write-ups), and labs.

## **Physical Sciences**

Grade: 9

This course is one semester of Introduction to Physics and one semester of Introduction to Chemistry. The Physics portion focuses on one dimensional motion, Newton's Laws, Forces, Electricity and Energy. The Chemistry portion focuses on Matter, Atoms, the Periodic Table, Chemical equations and Chemical Reactions.

## **Biology**

Grade: 10

Prerequisites: Physical Sciences

Biology includes the study of ecology, cells, genetics and, evolution. Within ecology topics will include global environmental issues, population dynamics, biodiversity, invasive species, species interactions and symbiotic relationships. An introduction to cells is

included in Biology; topics covered are the types of cells, their structure and function, physiology and maintaining homeostasis. Genetics is studied beginning with basic genetics, epigenetics and the interaction of genes and the environment. An in depth study of Evolution will round out Biology education.

## **Chemistry**

Grade: 11 or 12

Prerequisites: Physical Science & Algebra I & Biology

Chemistry is a college prep course designed to prepare students for introductory college chemistry courses. Topics will include fundamentals of chemistry, atomic theory, periodic table, quantum mechanics, bonding, nomenclature, formulae and equations, stoichiometry, states of matter, thermochemistry and solutions, acids/bases, and redox/equilibrium reactions. Concepts will include real-world applications, scientific writing (formal lab write-ups), and labs.

## **Anatomy & Physiology**

Grade: 11 or 12 (Offered even numbered school years i.e. 2010-2011 school year - Alternates every other year with Environmental Science)

Prerequisites: Biology

Anatomy & Physiology is a college prep course designed to prepare students for college anatomy & physiology. This course focuses on anatomy and physiology of the human body. Topics include biochemistry, basic anatomical terms & directions, tissues, as well as human body systems such as Skeletal, Muscular, Nervous, Cardiovascular, Respiratory, Endocrine and Reproductive Systems will be covered. The heart will be dissected as well as a fetal pig at the end of the year.

## **Agricultural Sciences**

Grade: 11 or 12 (Alternates every other year with Anatomy)

Prerequisites: Biology

This course focuses on hands on environmental learning. Students will study biomes, global environmental issues, watersheds, dendrology (the study of trees) as well as forest management. Other projects include mammals and winter tracking, fish, their habitat requirements and measuring water quality using chemical and bio-indicators.

## **Physics**

Credit: 1

Grade: 11 or 12 (Alternates every other year)

Prerequisites: Physical Science and Pre-Calculus

Physics is a college prep course designed to prepare students for introductory college physics courses. Topics will include fundamentals of physics, 1D motion, 2D motion and forces, dynamics, momentum, periodic motion, mechanical energy, mechanical waves, electromagnetic waves, electric forces, electric current, energy transformations, and energy and in society. Concepts will include real-world applications, scientific writing (formal lab write-ups), problem solving, and labs.

## **Music Department**

### **6<sup>TH</sup>/7<sup>TH</sup> Grade Band**

6<sup>th</sup> / 7<sup>th</sup> Grade Band is an ensemble that provides students with learning and performance opportunities on wind and percussion instruments. The primary focus is on the development, continuation, and expansion of basic skills begun the previous years that are necessary for effective instrumental music performance. In addition to large group ensembles, individual growth and achievement are encouraged through participation in adjudicated solo and ensemble contests, honor bands, and other events.

## **8<sup>th</sup>-12<sup>th</sup> Grade Band**

Band is a year long course open to any student (grades 8-12) with previous instrumental music experience. Students will participate in marching band and concert band performances. A wide variety of music for winds and percussion will be studied and performed throughout the year. Students will have individual opportunities to participate in optional events like Solo and Ensemble Contest, Honors Band, musicale tea etc. Attending all full band performances is a course requirement.

## **Industrial Arts Department**

### **Shop 6**

The course is designed to introduce students to the basics of drafting. Various topics covered are sketching, orthographic projection, introduction to miter lines for the use of plotting points, dimensioning, alphabet of lines, and basic 3 dimensional drawing.

### **Woods 7**

Introduction to the basics of woodworking. Safety is the main focus of this class as this is where all the machines are introduced to the students. Machines that students will learn to use are the jointer, planer, table saw, radial arm saw, miter saw, band saw, and various sanding machines. Students in this class choose to mass produce a project and then are introduced to the manufacturing process under the teacher's direct supervision.

**Woods 8** - Is the study of the tools, materials and processes common in woodworking. Processes introduced are layout, measuring, cutting, sanding, drilling, shaping, jointing, fastening, and finishing.

### **Woods**

The course is designed to expand the skills and knowledge acquired in the Junior High Woods classes. Students are encouraged to

choose a project at their skill level that will challenge them during the construction process.

**Home Tech** - A class that is designed to introduce students to the carpentry field along with teaching them house maintenance.

Topics covered are basic house framing, rafter building, roofing, electrical wiring, plumbing on sinks and toilets, sweat soldering, drywall repair, and basic masonry.

## **Physical Education**

### **ADVANCED FITNESS**

Advanced Fitness will provide learning opportunities for students to further develop skills and knowledge related to health and fitness, physical competence, an understanding of how exercise directly affects the body, and positive attitudes about physical activity that promote a healthy and physically active lifestyle. Students will acquire knowledge and skills related to aerobic and anaerobic exercise. The curriculum will differ from general physical education class. Students will create their own fitness plan that they will then implement individually and collect results.

### **High School PE**

Physical Education/Fitness class contributes much to the growth, development and general well-being of every individual. Students learn skills necessary to become physically fit, participate in wide variety of exercises and activities, develop the understanding and value of physical education, and learns and demonstrates the skills necessary to work with others in a team format along with establishing individual goals towards life-long fitness.

### **Middle School PE**

Physical education is a vital part of an individual's total education. The emphasis for physical education this year is on a wide variety of physical activities that will help a student to lead a physically active and healthy lifestyle. There will be a range of activities from

touch football, soccer, kick ball, dodge ball, weight training, basketball, to speedball. Students will also be tested twice in accordance with the Presidential Fitness Standards. The desired goal is a well-rounded student that is educated intellectually, socially, morally, and physically.

## **Health**

The goal of Health Education is to help establish patterns of behavior that will assist a person in achieving complete health. This is done by following the health education standards along with updated current facts and events going on around us.

Complete health is accomplished by having a balance of physical, mental, social, and emotional well-being. This course is designed to offer students the opportunity to acquire knowledge, incorporate process and life skills, and develop positive attitudes about life. Building a solid foundation of good decision-making skills can contribute to a variety of healthy choices for themselves and others. Although the knowledge components are addressed through several different content sections, the development of skills and attitudes has been woven throughout each of these areas. Development of a healthy body and a healthy mind will assist young people in living active, productive, and successful lives.

## **Business Education**

### **FINANCIAL ACCOUNTING**

Accounting is a skill-level course that is of value to all students pursuing a strong background in business, marketing, and management. This course includes planned learning experiences that develop initial and basic skills used in systematically computing, classifying, recording, verifying, and maintaining numerical data involved in financial and product control records including the paying and receiving of money. Instruction includes information on keeping financial records, summarizing them for convenient interpretation, and analyzing them to provide



assistance to management for decision-making. This course provides coverage of three types of business – proprietorship, partnership, and corporation. Each type of business is presented in a complete accounting cycle covering analyzing transactions, journalizing, posting, petty cash, financial statements, and adjusting and closing entries. Accounting concepts are introduced using a modern business with owners that students can relate to in each cycle.

## **MEDIA PRODUCTIONS**

This course is an applied computer application class enforcing the concept and principles of desktop publishing. Included in the class are the layout and design of a variety of different printed publications such as the school yearbook and the school newspaper.

The Video Productions portion of the course is designed to utilize digital video as an innovational, viable instructional tool in the classroom. The nature of the course commands hands on total motivation, creativity and interest. These elements certainly exemplify elements for effective learning.

An instructional digital video process, specifically designed and developed for the course, is used to provide focus and direction to the students. The process involves eleven steps. Each step in the production of a video is followed by a three-pronged assessment, which encompasses a teacher review, peer review, and a self-assessment. The steps are: defining the video, creating a storyboard and script writing; shooting the video; video editing; final revision and editing; and final presentation.

## **INFO TECH I**

This course is an introductory course about the digital age, specifically computers, communications, the digitization of information and the exchange of digital information. Students will be exposed to the Microsoft Office Suite. They will learn how to properly research the internet, create digital presentations and videos, word process, create spreadsheets and databases.

## **BUSINESS PRINCIPLES**

Business Principles is an introductory course on the role of business in our free enterprise system. Major emphasis is on the individual as a consumer, conserver, worker, producer, and well-informed citizen. Areas of study include the economic system; business in our economy; interrelationships of government, business, and labor; career opportunities and work attitudes; technology; financial institutions and banking services; management of credit; planning of savings and investments; protection from economic loss (insurances); and business management and marketing.

## **INFO TECH II**

Students taking Info Tech II will be exposed to various software applications. An in-depth approach will be taken in the creation of documents. Emphasis will be placed on Desktop Publishing, Graphic Design, Graphic Editing, WebSite Development and creation. Proper use of social networking and the power of file sharing will be explored.

## **On-line Education**

Courses are available on-line for elective purposes. Courses are available from the following sources and their course catalogs.

Odysseyware: <https://www.odysseyware.com/course-catalog>

GenNet: [http://www.gennet.us/subjects\\_21F.asp](http://www.gennet.us/subjects_21F.asp)

Michigan Virtual High School:

<https://michiganvirtual.org/courses/students/>

Other options may be available if they meet the requirement of a student's Educational Development Plan.