

## ART

The emphasis of the art department at Grant High School is on developing creativity through creating art and studying the historical, cultural and social roles that art plays in our world. Classes are designed to help students develop an understanding and appreciation of art materials and techniques as well as the production of works of art. Students will be expected to do research projects and weekly homework drawings that are based on class work. Art can be an enjoyable enrichment class to deepen a student's awareness of the world around them as well as preparation for a future career in an art-related field.

### ART 111 FUNDAMENTALS OF ART (Grades 9 – 12) One semester

This class is designed to present the basics of visual art. Discussion and written activities will enable learners to develop their understanding of the meaning of art and its role in our world. A variety of media will be introduced as well as terms and techniques that will promote the development of skill in the following areas: the elements and principles of design, basic drawing, color theory, basic painting, and basic ceramics. This class is a prerequisite for all other art classes.

### ART 121 DRAWING AND DESIGN (Grades 9 – 12) One semester

This class will focus on basic drawing and design terms and techniques in a variety of media including but not limited to paper, pencil, colored pencil, marker, charcoal, pastel, and pen and ink. Artists through history will be presented in relation to drawing and design. Through discussion, written activities and projects, learners will develop a better understanding of these artists and their impact and influence on art. Prerequisite: Fundamentals of Art.

### ART 131 PAINTING (Grades 9 – 12) One semester

This class will focus on color theory and basic painting terms and techniques in a variety of media including but not limited to watercolor paint, tempera paint, and acrylic paint. Artists through history will be presented in relation to painting. Through discussion, written activities and projects, learners will develop a better understanding of these artists and their impact and influence on art. Prerequisite: Fundamentals of Art.

### ART 141 SCULPTURE AND CERAMICS (Grades 9 – 12) One semester

This class will focus on basic sculpture and hand-build ceramics terms and techniques in a variety of media including found objects, clay, wire and paper mache. Artists through history will be presented in relation to sculpture and ceramics. Through discussion, written activities and projects, learners will develop a better understanding of these artists and their impact and influence on art. Prerequisite: Fundamentals of Art.

### ART 151 PHOTOGRAPHY (Grades 11 – 12) One semester

This class will focus on the basics of black and white photography. Students will learn how to operate a 35mm camera, develop film and photos, and enlarge photos. There will be a focus on

photo composition and creative uses of photographs within artwork. Students will also learn basic digital photography and manipulation of digital photos using Adobe Photoshop. Prerequisite: Fundamentals of Art and permission from the Art Teacher.

### **ART 161 PRINTMAKING (Grades 9 – 12) One semester**

This class will focus on basic forms of printmaking. Students will learn basic terms and techniques in relief printing, block printing, silk-screening, and etching. There will be a focus on design and color. Artists through history will be presented in relation to printmaking. Through discussion, written activities and projects, learners will develop a better understanding of these artists and their impact and influence on art. Prerequisite: Fundamentals of Art. Class offered every other year from 2011-12 on.

### **ART 211 ADVANCED DRAWING AND DESIGN (DRAWING II, III, IV) (Grades 10 – 12) One - two semesters**

This class is an advanced class for those who have a strong interest in improving their drawing skills, exploring new media and techniques, and developing a better understanding of visual art and art history. An emphasis will be placed on the student's ability to use the language of art both in creating and discussing art. Students will focus on strengthening the area of creativity and expression in composition through design, subject matter, and technique. Artists through history will be presented in relation to drawing and design. Through discussion, written activities and projects, learners will develop a better understanding of these artists and their impact and influence on art. Prerequisite: Fundamentals of Art and Drawing and Design with a B or better grade.

### **ART 221 ADVANCED PAINTING (PAINTING II, III, IV) (Grades 10 – 12) One semester**

This class is an advanced class for those who have a strong interest in improving their painting skills, exploring new techniques, and developing a better understanding of visual art and art history. An emphasis will be placed on the student's ability to use the language of art both in creating and discussing art. Students will focus on strengthening the area of creativity and expression in composition through design, subject matter, and technique. Students will learn how to stretch and prepare their own canvas. Artists through history will be presented in relation to painting. Through discussion, written activities and projects, learners will develop a better understanding of these artists and their impact and influence on art. Prerequisite: Fundamentals of Art and Painting with a B or better grade.

### **ART 231 ADVANCED SCULPTURE AND CERAMICS (SCULPTURE II, III, IV) (Grades 10 – 12) One semester**

This class is an advanced class for those who have a strong interest in improving their sculpture and ceramics skills, exploring new media and techniques, and developing a better understanding of visual art and art history. An emphasis will be placed on the student's ability to use the language of art both in creating and discussing art. Students will focus on strengthening the area of creativity and expression in composition through design, subject matter and technique. Artists through history will be presented in relation to sculpture and ceramics. Through discussion, written activities and projects, learners will develop a better understanding of these artists and their impact and

influence on art. Prerequisite: Fundamentals of Art and Sculpture and Ceramics with a B or better grade.

## COMPUTER

### COM 311 MULTI-MEDIA COMMUNICATIONS One semester

In this course students will investigate the many ways that using technology will enhance their communication, organization, creativity, efficiency, and productivity throughout their lives as students at GHS and as they move past high school. Some of the activities that we will be involved in are:

- iWork Suite
  - Pages
  - Numbers
  - Keynote
- iLife
  - GarageBand
  - iPhoto
  - iMovie
- Google Drive
- Google Sites

All work (both individual and group projects) will be done on computers and iPads and submitted on the Google Drive. Students will be given many opportunities to search for interesting and informative topics to share with the class relating to "Multi-Media".

### COM 312 ADVANCED MULTI-MEDIA One semester

This course provides an introduction to filming and editing (iMovie) video projects. In this class, you will be doing video announcements, projects for the school district and community, as well as class projects. You will also utilize photo editing software to add text and graphics to existing images, presentation software for higher level projects, and some introduction to spreadsheets for creating tables and organized information.

## ENGINEERING

### Introduction to Engineering & Design A&B

Student dig deep into the engineering design process, applying math, science, and engineering standards to hands on projects. Students work both individually and in teams to design solutions to a variety of problems using 3-D modeling software. Counts toward VPAA credit.

## **Principles of Engineering A&B**

This is the 2<sup>nd</sup> year course in the sequence of Engineering. Pre-requisite is Intro to Engineering A&B. Counts toward VPAA credit, senior Math credit, or elective Science credit. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problems solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

## **Civil Engineering & Architecture A&B**

The 3rd year course of the PLTW Engineering Pathway, Civil Engineering & Architecture introduces students to the aspects of design and engineering in both residential and commercial buildings. This course involves hands-on model building, mathematical calculations, use of local codes and ordinances. Students will use computer-based modeling software to design a Habitat for Humanity house, and also refurbish an abandoned warehouse into a library.

## **ENGLISH**

### **ENG 111/112 ENGLISH 9 (Grade 9) Two semesters**

This course uses six distinct units to introduce students to six specific genres: short story, novel, poetry, drama, epic, and nonfiction. A substantial amount of reading in and out of class is expected. Standards in reading literature, reading informational texts, writing, speaking, listening, and language will be addressed.

### **ENG 121/122 ADV. ENGLISH 9 (Grade 9) Two semesters**

This course uses six distinct units to introduce students to six specific genres: short story, novel, poetry, drama, epic, and nonfiction. A substantial amount of reading in and out of class is expected. Standards in reading literature, reading informational texts, writing, speaking, listening, and language will be addressed. This course is different from the

English 9 course in scope, volume, and complexity. PREREQUISITE: Recommendation of 8th grade English teacher and should have a B average in English.

### **ENG 211/212 ENGLISH 10 (World Lit & Grammar) (Grade 10) Two semesters**

Speaking, writing, grammar, vocabulary, and listening activities are used in conjunction with literature. The literature will feature a variety of short stories, nonfiction, poetry, and drama.

### **ENG 221/222 ADV. ENGLISH 10 (Adv. World Lit & Eng. Grammar) (Grade 10) Two semesters**

This course will include a large amount of reading of a variety of genres including short stories, poetry, drama, essays, biographies and autobiographies, and novels. Although writing and speaking activities will be included, the course emphasis will be on the literature. Classroom and small group discussions and projects will be utilized. Prerequisite: Recommendation of 9th grade English teacher and should have a B average in English with an interest in reading.

### **ENG 231 CREATIVE WRITING (Grades 9 – 12) One semester**

This course is designed for students who have a strong interest in writing both poetry and prose. Critiquing, revising, sharing, and learning what professionals say about writing are important elements of the class. Keeping a writer's journal may be required.

### **ENG 241 JOURNALISM (Grades 9 – 12) One semester**

Students will learn all aspects of journalistic writing, including news, feature, sports, and editorial writing. In addition, students will explore the elements of good newspaper and yearbook layout and design, as well as the grammatical style and computer skills that are pertinent to journalism.

### **ENG 251 MYTHOLOGY (Grades 9 - 12) One semester**

Myths are a culture's way of explaining the unknown and incorporating that culture's history. To this day myths are presented in some form not only in literature but on television and in the movies. Such recent movies as "Troy" and "Beowulf" attest to modern interest in these ancient myths. Since much of western literature is based on Greek mythology, ancient Greeks and Romans and other cultures of myths and eras will be covered.

### **ENG 311/312 ENGLISH 11 (American Literature) (Grade 11) Two semesters**

The course includes a survey of American literature, writing of various compositions to develop skills for taking the MME test, study of grammar and mechanics as they relate to the writing assignments, and vocabulary relevant to the study of literature.

### **ENG 321/322 ADV. ENGLISH 11 (American Literature) (Grade 11) Two semesters**

This class or English 311/312 is required for juniors. This course involves a survey of American Literature as well as in-depth study of several novels by American authors. Composition work will be for purposes of developing skills for taking the MME test and responding to the themes and

issues in the novels read. Grammar and mechanics will be approached on an as-needed basis. Prerequisite: teacher recommendation or a B average in English.

### **ENG 344 JRR TOLKIEN & MIDDLE EARTH (Grades 9 - 12) One semester**

English elective class where students will study JRR Tolkien's literature as a resource for other modern fantasy writers. Just as Tolkien took from Norse mythology and the Bible, each new generation of writers has taken from him. His dynamic Middle-Earth impacts images and themes in the works of other important authors including C. S. Lewis and J. K. Rowling. We will examine the tension displayed between one's responsibilities to one's self and to an ideal greater than that self, heroic characteristics and their tragic consequences and the ideal of the fellowship.

### **ENG 411/412 ENGLISH 12 (Grade 12) Two semesters**

This class fulfills the Michigan Merit Curriculum and provides the content expectations for senior English.

### **ENG 421/422 ADV. ENGLISH 12 (Grade 12) Two semesters**

Using advanced literature, this course focuses on analyzing and interpreting literature as well as the different literary styles. Writing is emphasized and the students will write in-depth papers in the various forms of discourse as well as creative writing. Students will also plan and demonstrate what they have learned through creative projects.

## **FOREIGN LANGUAGE**

### **SPA 111/112 SPANISH I (Grades 9 – 12) Two semesters**

This course is a general introduction to the Spanish language, culture, and history. An emphasis is made on listening, speaking and video comprehension.

### **SPA 211/212 SPANISH II (Grades 9 – 12) Two semesters**

Spanish II continues practice in conversational Spanish but places more emphasis on reading, writing, and grammar. It is recommended for students who had at least a "C" or better in Spanish I.

### **SPA 311/312 ADV. SPANISH (SPANISH III & IV) (Grades 10 – 12) Two semesters**

Spanish III completes the study of basic Spanish grammar. Spanish literature is introduced and reading is emphasized. Students must have a "C" or better in Spanish II. Spanish IV is a course in Advanced Spanish with an extensive review of grammar and practice in writing, reading, and speaking Spanish. This class is largely independent in nature and requires a self-motivated student.

### **LAT 111/112 LATIN I (Grades 9 – 12) Two Semesters**

The basis of the Romance languages--French, Spanish, Italian, and others--Latin is also the source of 70% of English vocabulary. Latin I explores speaking, reading, and writing in the language of the Romans, with a focus on the continued cultural relevance of the art, architecture, mythology, government, and law of the ancient world. Games, storytelling, question/response, and dramatic scenes provide the framework for an active environment of language acquisition.

### **LAT 211/212 LATIN II (Grades 10 – 12) Two Semesters**

Latin II continues the study of the language of the ancient Romans, and includes more in-depth reading/translating assignments. It is recommended for those students who maintained at least a C average in Latin I.

### **LAT 311/312 LATIN III; LAT 411/412 LATIN IV (Grades 11 – 12) Two Semesters**

Available for independent study, Latin III and IV examine advanced grammar topics and the reading of original texts. Because the translation and reading comprehension at this level is largely independent, students must have a B or better average in Latin II.

## **MATHEMATICS**

### **MTH 201/202 MATH SUPPORT (Grade 9) Two semesters**

Class for students to provide extra support and teaching in arithmetic principles to help them gain skills.

### **MTH 219/220 ALGEBRA (Grades 9 - 10) Two semesters**

This course will acquaint the students with the fundamentals of algebra for students seeking the technical trades using Algebra concepts. Applications, statistics, and geometry are employed to develop and exemplify the algebra of quadratic and linear equations and inequalities. Graphing of lines is heavily emphasized. An emphasis will be placed on applications to manufacturing and technical problems. Also included will be review of arithmetic principles as needed.

### **MTH 221/222 ALGEBRA I (Grades 9 - 10) Two semesters**

This course will acquaint the students with the fundamentals of algebra. It is the prerequisite for advanced math and is aimed at those students who have a firm understanding of the basics in arithmetic. Applications, statistics, and geometry are employed to develop and exemplify the algebra of quadratic and linear equations and inequalities. Graphing of lines is heavily emphasized.

### **MTH 209/210 GEOMETRY I (Grades 10 – 12) Two semesters**

This course is designed to introduce students to the geometric foundations of mathematics. The class will study patterns and proofs. Students will also work with properties, areas, and volumes of figures. Students will also explore equations and learn how to solve real-world situations with this

knowledge. Math credit for geometry standards with a focus on technology and manufacturing. Students have the availability to gain a direct credit through Muskegon Community College through the class. Students will use measuring tapes, calipers, micrometers, and other tools to understand geometry and how it relates to real world applications.

### **MTH 211/212 GEOMETRY (Grades 10 – 12) Two semesters**

This course is designed to introduce students to the geometric foundations of mathematics. The class will study patterns and proofs. Students will also work with properties, areas, and volumes of figures. Students will also explore equations and learn how to solve real-world situations with this knowledge. Prerequisite: student must successfully complete the Algebra course.

### **MTH 301/302 ALGEBRA II A/B (Grades 10 - 12) Two semesters**

This course is designed to continue the student's quest in developing algebra enlightenment. The class will study many functions, including linear, quadratic, exponential, logarithmic and trigonometric. Students will work with matrices, systems and other mathematical relations including imaginary numbers. Students will also explore equations and learn how to solve real-world situations with this knowledge. Prerequisite: Geometry or currently in Geometry.

### **MTH 311/312 ADV. ALGEBRA II (Grades 10 – 12) Two semesters**

This course is designed to continue the student's quest in developing algebra enlightenment. The class will study many functions, including linear, quadratic, exponential, logarithmic, and trigonometric. Students will work with matrices, systems and other mathematical relationships including imaginary numbers. Students will also explore equations and learn how to solve real-world situations with this knowledge. Prerequisite: Geometry or currently in Geometry.

### **MTH331/332 PERSONAL FINANCE (Grade 12) Two semesters**

Personal Finance features workbook, activities, and videos by Dave Ramsey, nationally recognized personal finance expert. The four units deal with Savings and Investing, Credit and Debt, Financial Responsibility and Money Management, and Insurance/Risk Management and Income/Careers.

### **MTH 411/412 FUNCTIONS, STATISTICS & TRIG (FST) (Grades 11-12) Two semesters**

This course integrates ideas of functions and trigonometry with statistics and data analysis necessary to function successfully in the worlds of today and tomorrow. The first trimester includes a thorough study of trigonometry with circular functions and concluding with an approach using right triangles and oblique triangles with practical applications. The second trimester will cover topics such as: groups of circular functions, permutations, sequences, series, combinations, polynomial functions, matrices and quadratic relations. Prerequisite: student must have successfully completed the Algebra II course with an A or B understanding.

### **MTH 421/422 CALCULUS (Pre Calc, Calc & AP Calculus) (Grade 11-12) Two semesters**

This course is the study of calculus with emphasis on the following calculus topics: techniques and application of the derivative, the exponential and natural logarithm functions and their applications, techniques of integration, trigonometric functions, and functions of several variables. Computers and graphing calculators will be used to aid in the solving of problems where applicable. Students doing well in this class will be encouraged to take the advanced placement mathematics exam. Prerequisite: student has successfully completed the trigonometry course with an A or B understanding.

### **MTH 421 STATISTICS A (Grades 11 – 12) One semester**

Statistics A will prepare students to analyze and interpret data from various disciplines such as psychology, economics, demographics, agriculture, manufacturing and biological science fields. Topics covered are organizing data: exploring data, normal distributions, examining relationships, and producing data: samples, experiments and simulations. Prerequisite: Teacher recommendation and 11th or 12th grade.

### **MTH 422 STATISTICS B (Grades 11 – 12) One semester**

Statistics B will study probability, randomness and binomial, geometric and sampling distributions. In addition, students will study inferences made from statistics. They will learn how to make sense of statistical significance and to make inferences for distributions and proportions. Prerequisite: Successful completion of Statistics A and 11th or 12th grade.

## **MUSIC**

### **MUS 111/112 BAND (Grades 9 – 12) Two semesters**

Band is a major performing organization at the high school. Participants are required to attend the 13 – 16 performances scheduled for the band each year. The band performs as the marching band in the fall and as the symphonic band the rest of the year. The Grant Tiger Marching Band begins rehearsals during the summer months and prepares a new show every year. The marching band performs at all home football games, in parades, and travels to festivals and competitions each fall. The Symphonic Band plays a varied repertoire of music and performs at festivals and concerts at least five times per year. Enrollment is open to all previous band members entering grades 9 – 12. Others may be able to join with the permission of the directors. Music literature and history are considered very important to the musical development and will be part of the curriculum. Prerequisite: Must be proficient on instrument and previous band experience. Must be able to read music and sight read.

### **MUS 121/122 JAZZ BAND (Grades 9 – 12) Two semesters**

Jazz Band is a performance-based ensemble at the high school. The band participates in 8 - 10 performances throughout the school year including concerts and festivals, and special occasions. Standard jazz band instrumentation is alto, tenor, and baritone saxophone, trumpet, trombone, guitar, piano, bass guitar, drum set, auxiliary percussion, and occasionally additional instruments.

Improvisation is an important part of jazz studies and will be emphasized. Students must audition or have director permission for admittance into this course.

### **MUS 131/132 TECHNICAL THEATER (Grades 9 – 12) One - two semesters**

Technical Theater is a performance and technique class made up of men and women in 9-12 grades. Participation in the school musical is required. Students will work on the varying elements of production encompassing both on and off stage work. An audition is required to place students in appropriate positions for the musical but will not be used to exclude a student from participating.

### **MUS 141/142 CONCERT CHOIR (Grades 9 – 12) Two semesters**

Mixed choir is a performing choir made up of men and women in 9 - 12 grades. Performances (8-10 per year) are required after-school activities. All students are welcome to join this choir. Students sing advanced choral literature in four to eight-part harmony with emphasis on a cappella singing. Students must be able to, or learn to, sight sing and read music at an advanced level.

### **MUS143/144 Chamber Choir (Grades 9-12) One semester**

Chamber Choir is a highly select mixed choir (Soprano, Alto, Tenor, Bass) of twenty to thirty singers. Students must audition for a spot in this choir with spaces limited depending on voice parts. Students learn advanced singing & performance techniques, to read music at an advanced level, historical music styles and techniques, music theory, cooperation skills, problem solving skills and goal setting to achieve standards of excellence. After school and evening performances may be extensive.

## **PHYSICAL EDUCATION AND HEALTH**

### **PEH 111/112 PHYSICAL EDUCATION (Grade 9) One semester**

Physical education is an essential part of the total educational program for the well-rounded development of our students. The aim of the program is to expose students to a variety of both team and individual activities. Skill development, rule instruction, and enjoyment of the activities will be emphasized. The Grant HS Weight Room will be used throughout the year to set up individual fitness programs.

### **PEH 211/212 ADVANCED PHYSICAL EDUCATION (Grade 9-12) Two semesters**

This course is designed to develop an interest in lifetime sports and activities to promote fitness and strength activities as well as building a healthy lifestyle. There will also be two projects per semester.

### **HTH 211 HEALTH (Grade 9-12) One semester**

The major goal of health instruction is to arm students with the knowledge to make healthy choices that lead to a higher quality of life. We will explore the physical, mental, and social aspects of health and how the choices we make affect each of these areas.

## PEH 311/312 CONDITIONING (Grades 9 – 12) One - two semesters

This class is for students who want to improve their overall fitness. Participants will have opportunities to improve in the following areas; speed, quickness, strength, flexibility, body composition, explosive power, cardio-respiratory, nutrition, leadership, and individual sports skills.

## HTH 212 ADV. HEALTH AND FITNESS (Grade 10-12) One – two semesters

This is an upper-level course for students interested in learning how to lead a healthy lifestyle and not for preparing for athletics. The focus of the class will be to improve the present level of fitness and weight loss. We will also learn about proper nutrition and how it plays a role in this process.

# SCIENCE

## SCI 101/102 ENVIRONMENTAL SCIENCE (Grades 9-10) Two semesters

This course is designed to improve scientific literacy and best practices in science. The primary focus will be on inquiry and investigation, scientific process, as well as a review of important topics about earth science. Students will design, perform, and evaluate their own scientific experiments. No prerequisite.

## SCI 111/112 BIOLOGY (Grade 9-10) Two semesters

This course is focused on using critical thinking skills and class discussion to achieve a basic understanding of Biology as this course is taught using the pedagogy of Modeling Instruction. Students will be expected to perform laboratory and field observations and draw conclusions from their research. Units are aligned to NGSS Science Practices. Units of study are heredity, interactions among populations, evolution, growth and reproduction, characteristics of life, energy, and human impacts. Starting 2019-2020, *Prerequisite: Successful completion of Chemistry.*

## SCI 211/212 ANATOMY/PHYSIOLOGY (Grades 10 – 12) Two semesters

This course is designed to prepare students for a college curriculum in the biological sciences. A detailed look at the human body will include both structure and function. Numerous laboratory experiments will be performed including the dissection of a lower mammal as a comparative animal. All students entering college in any area of medicine or detailed biological study should complete this course. Other students interested in the study of the human body are welcome to enroll. Prerequisite: successful completion of Biology A & B.

## SCI 301/302 CHEMISTRY CONCEPTS (Grades 10 - 12) Two semesters

This is the core course in chemistry. The course will cover the content expectation of the Michigan Merit Curriculum in chemistry tested on the Michigan Merit Exam. Chemistry is the study of matter and energy. Study includes atomic structure, bonding, periodic law, naming compounds, heat laws, and acid and bases. Various lab exercises enhance the topics covered in a day. This course (or Chemistry) is required for all students.

## SCI 311/312 CHEMISTRY (Grades 10 – 12) Two semesters

This class is the first science class that students will take as high school students starting 2018-2019 school year. The goal of this class is to provide GHS students with an understanding of how matter and energy fit into our everyday lives. Students will learn about various natural phenomenon and be able to explain how they can occur. The topics covered in this yearlong course include conservation and transfer of energy, forces, momentum, formation and life of stars, the periodic table, reaction rates, photosynthesis and cellular respiration, and organic molecules.

## SCI 341/342 LAB ASSISTANT (Grades 11 – 12) Two semesters

This course is designed to allow students to become proficient in the areas of biological sciences by preparing lab sessions, giving class demonstrations, and assisting students in laboratory situations. All students will be expected to spend three hours per week working with or preparing for student laboratory sessions. At the conclusion of each unit, written evaluations will be necessary from each student. Only college-bound students with a true desire to work with other students in a classroom setting should enroll in this course.

## SCI 411/412 HONORS CHEMISTRY (Grades 11 - 12) Two semesters

This course is designed for students seeking a more advanced curriculum in chemistry. This course will make use of college based labs and materials to better prepare the student for college chemistry. Prerequisite: Honors Chemistry I. This course is offered every other year.

## SCI 421/422 PHYSICS (Grades 11 - 12) Two semesters

This course is designed to cover classic Physics with more advanced mathematics. The student will do experiments to reinforce the text. A physics course is important for students who plan to continue their education in any technical or science related field. Prerequisite: Algebra II.

## SCI221 EARTH SCIENCE 3<sup>rd</sup> Year – 1<sup>st</sup> semester **REQUIRED\*** (implementing 2020-2021 school year)

This course is the first half of the third year in the progression of the Next-Generation Science Standards at Grant High School. During this semester-long course, students will learn about the Earth's Interior, Age of the Earth, Climate Change, Rock Cycles, Water Cycles, and Reducing Human's Impact on the Earth. Hands-on activities, labs, and simulations will supplement traditional teaching methods.

*Pre-Requisite: Due to the graduated, accumulating nature of these courses, successful completion of Chemistry & Biology needed before taking the third-year class.*

## SCI222 PHYSICS 3<sup>rd</sup> Year – 2<sup>nd</sup> semester **REQUIRED\*** (implementing 2020-2021 school year)

This course is the second half of the third year in the progression of the Next-Generation Science Standards at Grant High School. During this semester-long course, students will learn about Forces at a Distance, Waves, and Wave Interactions/Applications. Hands-on activities, labs, and simulations will supplement traditional teaching methods.

*Pre-Requisites: As the final capstone course of the science progression, successful completion of Chemistry, Biology, and Geology are needed prior to taking Physics.*

2020-2021 \* The third year elective science courses (Earth Science and Physics) are able to be waived by students who are participating in Career/Technical Education at the NCRESA CTE School\*

**SCI421/422 HONORS PHYSICS - Year Long Elective (to be implemented 2020-2021 school year) it is our current Physics course.**

This course is designed to teach classical Physics, with more advanced and rigorous mathematics. The student will do experimentation to reinforce the content in class. A physics course is important for students who plan to continue their education in any technical or science related field. May be counted as a Senior Math credit.  
Prerequisite: Successful completion of Algebra II.

## **SOCIAL STUDIES**

**SOS 111 US HISTORY AND GEOGRAPHY A (Grade 9) One semester (Required)**

Reconstruction thru Great Depression 1865 - 1945. The students will study the United States geographically and historically from reconstruction through the present day. The students will study the emergence of the United States as a strong national and international power. This is a required class for 9th grade.

**SOS 112 US HISTORY AND GEOGRAPHY B (Grade 9) One semester (Required)**

World War II to Present. The students will study the United States' relationships within a global community: politically, economically, and militarily and geographically. This is a required class for 9th grade.

**SOS 121 WORLD HISTORY & GEOGRAPHY A (Grade 10) One semester (Required)**

This class takes a global approach to studying the world and its past to develop a greater understanding of the development of worldwide events, interactions among the world's people, cultures, and environment. The first semester of this class will take us from the classical world to the growth of Islam to the Black Death of Africa, China, Europe and the Americas during the early and medieval periods. We will also study the expanding global explorations, including the slave systems, followed by a look at 18th century Russia, Latin America, and Asia. This is a required 10<sup>th</sup> grade class.

**SOS 122 WORLD HISTORY & GEOGRAPHY B (Grade 10) One semester (Required)**

This class continues to study the world through various events and people important in the migrations and revolutions that occurred around the world throughout the last few centuries. We will analyze the industrial revolution and its impact on the world today, along with the increasing interconnection of countries around the world through the struggles that develop. The class will conclude with a study of the world wars and the cold war that develops following that traumatic time period. Through this comprehensive study, students will realize the impact of the past on the world they inhabit today. This is a required 10th-grade class.

### **SOS 131 WORLD WARS (Grades 9 - 12) One semester (Elective)**

World War I and II were devastating to Europe and the rest of the world. This class focuses on the causes, events, and outcomes of these two major wars. We will also learn about the individuals involved and the influence they had on the wars. The course will conclude with a look at Germany today and her place in the European Union and in the world.

### **SOS 211 MACRO ECONOMICS (Grade 11) One semester (Required)**

The general objective of this course is for students to master fundamental economic concepts, appreciate how the principal concepts relate to each other and understand the structure and function of economic systems. The class will assist students in understanding how the concept of scarcity forces individuals, businesses, and the government to make choices with their limited resources. An understanding of our Free Enterprise system will be established, as well as the role of the United States in the global economy. This class is required for all 11th-grade students.

### **SOS 311 GOVERNMENT (Grade 11) One semester (Required)**

This course will assist in the development of better citizens through an understanding of the American system of government. Major emphasis will be placed on the role of our national government and its relationships with people, state governments, and the international network of nations. Both the State of Michigan's and Newaygo County's core curriculum goals and objectives for social studies will be followed. The utilization of past and contemporary concepts of government will aid in motivating the students to understand and appreciate the American system of national government. This class is required for all 11th-grade students.

### **SOS 331 PERSONAL ECONOMICS (Grades 9 – 12) One semester (Elective)**

This upper-level social studies elective emphasizes personal economics. The class will cover many issues that face the average American regarding their personal finances. Topics such as taxes, budgets, investing, purchasing of goods and comparison-shopping will be covered.

### **SOS 321 PSYCHOLOGY (Grades 9 – 12) One semester (Elective)**

Students will study different aspects of human behavior such as learning and applications, memory and thought, motivation and emotion, sensation and perception, abnormal behavior, personality, along with altered states of consciousness.

### **SOS 322 SOCIAL PSYCHOLOGY (Grades 9 – 12) One semester (Elective)**

Social Psychology is the study of human behavior and groups in society. The study of social psychology helps answer the questions we have about our relationships and ourselves with others.

Social psychology has become an increasingly valuable area of study by helping us understand the issues and problems we face in our society today. People are concerned about issues of poverty, crime, gender and racial inequality and the forces of social change. These issues along with an emphasis on culture, socialization, diversity, and social organizations will be analyzed in this course.

### **SOS 371 STREET LAW (Grades 9 - 12) One semester (Elective)**

What are my rights? This social studies course focuses on the legal issues relative to student lives. Street Law should help students develop the knowledge and understanding they may need to interact in our law-related society. During the course, students will interact with other students to help determine and understand the outcome of some very real situations involving the law.

## **SPECIAL EDUCATION**

The student's individual educational needs determine what level of support is appropriate.

- Self-contained Room (SPE101-SPE215). Full educational support with life skills. \*No diploma awarded, only certificate of attendance. Some students attend Enterprise through NCRESA/CTC for half their school day.
- Workshop Academic Support (SPE211/212). 1st semester required for incoming freshmen. Provides support for core academic general education classes. Most students take two semesters each year.
- Teacher Consultant—Minimal pull out program.

## **SPECIAL SELECTIONS**

### **ACT 301 ACT/COLLEGE PREP (Grade 11) One semester**

This class is a preparation class for the ACT test the students take during their junior year. It is taken during the first semester of the Junior year.

### **ENG 331/332 YEARBOOK (Grades 9 - 12) One - two semesters**

Students will learn the basics of running a small business and promoting and creating the yearbook. Activities include learning about design, designing pages on Yeartech On-line, promoting and selling advertising and yearbooks, photography composition, camera operation, photo editing, writing stories, headlines, and captions and helping with all fund-raising and marketing activities. Teacher interview required for entrance into the class. This class is a two-semester class but can be taken for just one semester if it is the first semester. This does not count as an English credit.

### **ENG 335/336 YEARBOOK II (Grades 10 - 12) One - two semesters**

Advanced Yearbook course. Students will use leadership skills to lead first year Yearbook students with Photography, Design, Photoshop, Spreads, Ad and Book Sales. Students are more involved in

the Business aspect of the Yearbook sales, as well. This class is a two-semester class but can be taken for just one semester if it is the first semester. Pre-requisite: Yearbook

### **APAGS1-APSPA6 ONLINE EDMENTUM COURSES (Grades 9 - 12) One - two semesters**

This class is for credit recovery. If a student is behind classes academically or has failed any classes, he/ she will be required to take an online class to make up credit and get back on track to graduate. Edmentum online courses also offer advanced and/or elective classes that we don't offer at the HS. Students take these courses for a letter grade on their transcript.

### **SPS 501/502 INTRODUCTION TO ENGINEERING & DESIGN A & B (Grades 9 – 12) Two semesters**

Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. Students work both individually and in teams to design solutions to a variety of problems using 3-D modeling software. Counts toward VPAA credit.

### **SPS 503/504 PRINCIPLES OF ENGINEERING A & B (Grades 9 – 12) Two semesters**

This is the 2nd year course in the sequence of Engineering. Pre-requisite is Intro to Engineering A&B. Counts toward VPAA credit, senior Math credit, or elective Science credit. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problems solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

### **SPS 505/506 CIVIL ENGINEERING & ARCHITECTURE A & B (Grades 10 – 12) Two semesters**

This is the 3rd year course in the sequence of Engineering, Computer Integrated Manufacturing (CIM). Pre-requisite is Intro to Engineering A&B. Counts toward VPAA credit, senior Math credit, or elective Science credit. Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the career opportunities related to understanding manufacturing processes, product design, and robotics.

### **WSC 451/452 SCHOOL-TO-WORK INTERNSHIP (Grade 12) Two semesters**

Students (seniors) will spend up to two class periods daily in business, industry, or a public or private agency for the purpose of gaining insight, experience, and education related to the activities and functions of that organization that cannot be accomplished in a typical classroom setting.

Students must have indicated a prior career interest (on their Educational Development Plan) and meet state eligibility requirements for this program. Applications and placement decisions are made in the spring of the students' junior year -- see Mr. Morrison for applications.

## INDEPENDENT STUDY (Grades 11-12) One - two semesters

Independent study is an individual course developed with each student that participates. The material covered will be up to each individual instructor. These classes are mainly for advanced students who have taken all the classes in that subject area. It is up to the individual teacher to offer the class. Ind. Study should be set up over the summer prior to the start of school.

## DUAL ENROLLMENT (Grade 9-12) One – two semesters

Students can take up to 10 college courses during their HS career through the dual enrollment program, or apply for the Early College program, which covers 62 college credits & an Associate degree. Students generally sign up for these courses in the spring of their 10<sup>th</sup> grade year, with a plan to start dual enrolling in 11<sup>th</sup> grade. Students must have passed a qualification test on ACCUPLACER, PLAN, ACT, SAT, or PSAT exams and maximized their high school academic opportunities. See HS Counselor individually to learn more about this opportunity.

## CAREER-TECH CENTER PROGRAMS (Grades 11 & 12) Two semesters

1.5 credit is taken each semester either in AM or PM, for a total of 3 elective credits per year. Students shall be eligible for one Michigan Merit Curriculum credit per year in: Science, 4<sup>th</sup> year Math, VPAA, or World Language (for most CTC programs), provided a student completes the paperwork and maintains no less than a “C” grade (73% or higher) for the entire year.

Qualifications: Related course work is encouraged; students apply with their school counselor during the enrollment period. Each school district is allowed a limited number of slots in each program, therefore, a student's grade level status and prior attendance may be a consideration.

Purpose: The major purpose of the Newaygo County Career Tech Center is to prepare high school and adult students for full time, gainful employment upon completion of a program.

Placement: Placement into a program is carried out through the counselors. The counselors consider six important areas when placing a student into any program:

1. Interest
2. Aptitude
3. Achievement
4. Attendance
5. Attitude
6. Grade Level

Most programs may be taken for one year; however, certain programs do require a two-year commitment for professional certifications and licensing. For more detailed descriptions of the programs see the pamphlets that relate to the Career Tech Center in the Career Center by the counseling offices.

## BUSINESS MANAGEMENT MARKETING AND TECHNOLOGY

BAT-Accounting/Finance or BAT-Management Support

## ARTS AND COMMUNICATIONS

Graphic Communication

## ENGINEERING, MANUFACTURING AND INDUSTRIAL TECHNOLOGY

Construction Trades  
Networking Technology (Information Technology)  
Mechanical Engineering/Mechatronics  
Welding  
Automotive Technician (Electrical & Brakes)  
Heavy Equipment Technician

## HEALTH SCIENCE

Health Science - Certified Nurse Aide, CPR/First Aid Training  
AgriScience

## HUMAN SERVICES

Child Development Associate - Early Childhood Education  
Cosmetology (12th grade only plus one more year for certification)  
Culinary Arts - Hospitality, cooking and restaurant management

## CRIMINAL JUSTICE

Criminal Justice - 11th or 12th-grade dual enroll through West Shore Community College