

BENZIE CENTRAL Academy



COURSE CATALOG

2018-2019

GUIDING PRINCIPLES FOR BENZIE CENTRAL ACADEMY

Vision: All learners achieving individual potential.

District Mission Statement: The mission of the Benzie County Central Schools Community is to provide a safe learning environment that motivates all students to reach their highest potential by providing the necessary skills to become lifelong learners and leaders in a changing society.

BCHS Mission Statement: In partnership with our community, We believe the Responsibility of Benzie Central Academy is to provide a Well-Rounded Curriculum in a Safe, Positive Learning Environment so that All Students can become Productive, Functioning Members of Society.

Guiding Principles

We believe Benzie Central Academy is a learning organization, built upon integrity, and to this end:

We are committed to the principle of **Caring**.

We believe in:

- maintaining a family atmosphere
- supporting each other
- being warm, sincere, and genuine
- accepting and including everyone
- confronting the tough issues
- keeping each other safe and secure

We are committed to the principle of **Collaboration**.

We believe in:

- solving problems together
- working toward win/win
- building partnerships
- sharing best practices
- volunteering
- being generous
- engaging parents as full partners

We are committed to the principle of **Open Communication**.

We believe in:

- listening
- sharing
- promoting trust
- building community through dialogue
- encouraging participation from all

We are committed to the principle of **Diversity and Inclusiveness**.

We believe in:

- helping students value their unique talents and gifts
- knowing, understanding, and appreciating each other
- valuing individual differences
- celebrating our heritage
- healing racism
- embracing differences to enrich, strengthen, and connect our community
- striving for equity
- considering all viewpoints to arrive at better decisions

We are committed to the principle of **High Expectations**.

We believe in:

- expecting all children to learn
- requiring all to give their best
- providing opportunities for all to contribute
- assuming parents want what's best for their child
- maintaining high academic standards
- offering challenging opportunities
- helping students make healthy choices
- contributing to the development of good character

We are committed to the principle of **Learning**.

We believe in:

- learning for its own sake
- offering a range of educational opportunities
- providing diverse experiences
- individualizing learning programs
- accommodating multiple intelligences and learning styles
- preparing students for lifelong learning
- providing quality resources
- accessing the world beyond our classrooms

We are committed to the principle of **Respect**

We believe in:

- fostering high regard for self and others
- modeling civility
- appreciating differences
- adhering to our code of conduct
- having zero tolerance for inappropriate behaviors

We are committed to the principle of **Trust**.

We believe in:

- being honest
- being consistent
- being loyal
- assuming others' intentions are good
- keeping promises
- demonstrating good stewardship

Academy Plan

The following are minimum credit requirements that must be satisfied in order to graduate from Benzie Central Academy. These add up to 20, additional elective credits must be earned to reach a minimum total of 24. The entire graduation policy is located in the student handbook.

English	4 credits
Mathematics: 2 credits of Algebra, 1 credit of Geometry and 1 credit of math in the 4th year	4 credits
Science: 1 credit Earth Science, 1 credit Biology and 1 credit of Chemistry or Physics	3 credits
Social Studies: 1 credit US History, 1 credit Civics, 1 credit World History and .5 credit Economics	3.5 credits
Physical Education	1 credit
Health	.5 credit
Computer Science	1 credit
World Language*	2 credits*
Visual, Performing or Applied Arts	1 credit

*The World Language requirement must be met in 1 of the following 3 ways:

- A student shall successfully complete 2 credits of the world language. OR
- A student shall successfully complete 1 credit of a world language and successfully complete an accredited Career Tech program. OR
- A student shall successfully complete 1 credit of a world language and successfully an additional VPAA Credit.

Academy Plan

Requirements	9th Grade	10th Grade	11th Grade	12th Grade
Math (4 Credits: Algebra 1,2, Geometry and 4th year)	Algebra 1 Hon. Geometry	Algebra 2 Hon. Alg. 2 Geometry	Geometry Pre-Calculus Algebra 2	Geometry Con. Ed. Physics AP Calculus
English (4 Credits, 4 years)	English 9 Hon. Eng. 9	English 10 Hon. Eng. 10	English 11 Hon. Eng. 11	English 12 AP Literature
Science (3 Credits: Earth, Biology, Chemistry)	Earth Science Hon. E. Sci Hon. Biology	Biology Hon. Chemistry	Chemistry AP Biology ADV Biology	AP Chemistry
Social Studies (3 credits, 3 years)	US History	Health/Econ. Civics	World History AP Psychology	
World Language (2 yrs = I & II) or -2 year Vis./Perf. Arts -2 year CTC	Spanish I	Spanish I/II	Spanish I/II/III CTC MTA Dual Enroll	Spanish I/II/III CTC MTA Dual Enroll
ELECTIVES	Remember 1 credit of Physical Education and 1 credit of Computers is required to graduate. Please note the electives available to your grade level on the front of this sheet and in the course description guide located online.			

9th Grade	10 Grade	11 Grade	12 Grade
9th Grade: Core _____ Core _____ Core _____ Core _____ Seminar _____ PE: Body Mechanics, Reg PE Band: Symphonic Band, Choir: Chamber Choir, Benzie Bellas Art: Crafts, Drawing Honors Biology F. Lang: Spanish I or II Ind Arts: Plant Science, Animal Science	10th Grade: Core _____ Core _____ Core _____ Core _____ Seminar _____ PE: Body Mechanics, Adv Reg PE Band: Symphonic Band, Jazz Band Choir: Chamber Choir, Benzie Bellas Art: Crafts, Drawing, Studio Art Honors Biology F. Lang: Spanish I or II Ind Arts: Plant Science, Animal Science Myth/Current Events	11th Grade: Core _____ Core _____ Core _____ Core _____ Seminar _____ PE: Body Mechanics, Adv Reg PE Band: Symphonic Band, Jazz Band Choir: Chamber Choir, Benzie Bellas Art: Crafts, Drawing, Studio Art Honors Biology F. Lang: Spanish I, II, III, IV Ind Arts: Plant Science, Animal Science Myth/Current Events Career Tech Center MTA Dual Enrollment	12th Grade: Core _____ Core _____ Core _____ Core _____ Seminar _____ PE: Body Mechanics, Adv Reg PE Band: Symphonic Band, Jazz Band Choir: Chamber Choir, Benzie Bellas Art: Crafts, Drawing, Studio Art Honors Biology F. Lang: Spanish I, II, III, IV Ind Arts: Plant Science, Animal Science Myth/Current Events Career Tech Center MTA Dual Enrollment

ENGLISH	8
Honors English 9	8
English 10	8
Honors English 10	8
English 11	9
Honors English 11	9
English 12	9
AP Literature	9
Mythology	10
FINE ARTS	10
Concert Choir	10
Chamber Choir	10
Benzie Bellas	10
Symphonic Band	10
Jazz Band	11
Crafts	11
Drawing	11
Studio Art	11
HEALTH/PHYSICAL EDUCATION	12
Health	12
Physical Education Coed	12
Advanced Physical Education Coed	12
HS Body Mechanics	12
INDUSTRIAL ARTS/AGRICULTURAL	13
Agricultural Mechanics and Welding	13
Agricultural Shop and Construction	13
Industrial Arts	13
MATHEMATICS	14
Algebra I	14

Algebra II (Statistics)	14
Honors Algebra II	14
Geometry	14
Honors Geometry	14
Pre-Calculus	15
Advanced Placement Calculus	15
Consumer Education	15
SCIENCE/AGRICULTURE	16
Animal Science	16
Plant Science	16
Earth Science	16
Honors Earth Science	16
Environmental Science	17
Biology	17
Honors Biology	17
Chemistry	17
Honors Chemistry	17
Advanced Placement Chemistry	18
Physics *	18
Advanced Physics	18
Advanced Biology	18
Advanced Placement Biology	19
SOCIAL STUDIES	19
U.S. History	19
Civics	20
World History	20
Economics	20
Current Events	20
Psychology	21
Sociology	21

General Law	21
Advanced Placement Psychology	21
Advanced Placement U.S. History Full Year	21
TECHNOLOGY & BUSINESS	22
Computers 9	22
Multi-Media	22
Spanish I	22
Spanish II Prerequisite Spanish I	23
Spanish III Prerequisite Spanish II	23
Principles of Accounting I & II (Direct Credit from Baker College)	23
Study Hall	24
Seminar	24

ENGLISH

English 9

9th Grade
Year Long
1 Credit

This course develops three main skill areas of language arts: reading, writing, and grammar. The class examines a variety of genres including short story, novel, drama and poetry. Students learn higher level reading skills focused on understanding theme, interpreting meaning, and identifying author's craft. Writing skills focus on organizing ideas and crafting language purposefully. Grammar usage and mechanics are studied throughout the year and are reinforced in subsequent writing assignments. In all areas of study, active and independent learning, and logical and critical thinking are promoted.

Honors English 9

Prerequisites: Teacher Rec., STARS Test 10th Grade Level, Writing Sample, B+ average in English
Recommended for Grades: 9
Year Long
1 Credit

Honors English I is designed for the highly-motivated college-bound freshman. Students should demonstrate the ability to write with a high degree of competence based on an understanding of the writing process and the characteristics of good writing. The study of vocabulary will promote better verbal scores in reading comprehension on the ACT and SAT. Students will read and discuss short stories, plays, poetry and essays from an anthology of literature. Students will write two book reviews. Other writing assignments will include but not be limited to description, character sketch, personal narrative, persuasion and analysis.

English 10

Recommended for Grades: 10
Year Long
1 Credit

The goal for English Language Arts 10 is to continue to build a solid foundation of knowledge, skills, and strategies that will be refined, applied, and extended as students engage in more complex ideas, texts, and tasks. In English Language Arts 10, students will add to the list of various genre of classic and contemporary narrative and informational texts that will be read and analyzed throughout Academy. Tenth graders will connect with and respond to texts through critical response and stance. They will learn to evaluate for validity and quality, to balance and expand their perspectives promoting empathy, social action and appropriate use of power. Critical response and stance offers students the lens to assess and modify their beliefs, views of the world, and how they have power to impact them.

Honors English 10

Pre Prerequisite: Recommendation of current Honors English I teacher, B average in English
Recommended for Grade: 10
Year Long
1 Credit

The goal for Honors English 10 is to acquire mastery of knowledge, skills, and strategies of more complex ideas, texts, and tasks in this college prep class. Students will add American Literature to the list of various genre of classic and contemporary, narrative and informational texts that will be read and analyzed throughout Academy. The focus of exploration will be American novels and text.

Students will connect with and respond to texts through critical response and stance. They will learn to evaluate for validity and quality, to balance and expand their perspectives promoting empathy, social action and appropriate use of power. Critical Response and Stance offers students the lens to assess

and modify their beliefs, views of the world, and how they have power to impact them.

English 11

Prerequisite: Teacher Recommendation, B+ average in English

Recommended for Grade: 11

Year Long

1 Credit

This class will read and discuss world literature from a variety of cultures. Students will explore different genres that may include novel, short story, essay, drama, poetry, and nonfiction and other visual media. Students will examine the historical and cultural context of the literature as a means to understand it. The course will also focus on preparing students for the ACT test that is required of all juniors by the State of Michigan. Grammar, reading, and writing skills will be emphasized and tested regularly in preparation for the Spring ACT test.

Honors English 11

Prerequisites: Recommendation of current Honors English II teacher, B average in English

Recommended for Grade: 11

Year Long

1 Credit

This advanced level class will devote an entire year to the improvement of writing and analytical skills that the student has developed along the honors English path. We will utilize college level writing material and explore the finer aspects of the "Writing Process" culminating in a substantial research paper. Use of short stories, novels, and scholarly journal articles will provide students an opportunity to learn how to analyze and interpret multiple literary texts. The skills gained and developed in this class will assist and prepare the students for the ACT test taken at the end of the junior year.

English 12

Recommended for Grade: 12

Year Long

1 Credit

English 12 is a year-long literature survey course. Students will study the works of a variety of British authors. Special emphasis will be given to the study of a Shakespeare play. The course will also include instruction in grammar and writing. Students will complete a senior project in the spring.

AP Literature

Teacher Recommendation

Year Long

1 Credit

AP Literature is a year-long survey course of British literature. The authors studied, including medieval poets, Chaucer, Shakespeare, and Dickens, are much the same as the ones studied in the general education sections, but the honors class delves into more depth. Tests take a variety of formats, from multiple choice to assigned essays to essays in which students develop their own topics. Students will do an interpretive reading during the study of Hamlet. In the spring, they will complete a senior project in fiction writing.

Mythology

Recommended for grades: 11, 12

1 semester

.5 Credit

Mythology is a one semester thematically-based study of the mythology of a variety of cultures. Students will read and compare both ancient and contemporary myths about creation, the hero, death and the afterlife. The class will discuss the relationship of myth to language, culture and history.

FINE ARTS

Concert Choir

Recommended for Grades: 9-12

Full Year

1 Credit

Concert Choir is a SATB choir of 9-12 grade students. This ensemble participates in 3 concert performances, in addition to district and state level festivals, and solo & ensemble. Choral literature spans from sacred, secular, foreign-language, and popular music selections. Students will enhance their music literacy skills as well as learn the basics of music theory, music terms, and sight-reading. Attendance at public performances is mandatory.

Chamber Choir

Recommended for Grades: 9-12

Full Year

1 Credit

Chamber Singers is an auditioned SATB ensemble for 9-12 grade students. Students auditioning for this group must have a year's choral experience, strong music and sight-reading abilities. Auditions for this group take place at the end of the school year. The Chamber Singers participate in 3 concert performances, solo & ensemble, BC's Got Talent, and many extra community performances throughout the year. Attendance at public performances is mandatory.

MEMBERSHIP IS BY AUDITION ONLY.

Benzie Bellas

Recommended for grades 9-12

Full Year

1 Credit

Benzie Bellas is a 9-12 female ensemble. The group performs at all required choral events and at special community events. This groups will focus on singing SSAA a cappella music. You do not need to audition to be a part of this ensemble, **but requires instructor's permission.**

Symphonic Band

Grades: 9-12

Full Year

1 Credit

This class explores advanced Academy and college level musical literature and techniques with an emphasis on style and tone quality. Fundamentals of marching band are also taught in the fall. Prerequisite: successful completion of a junior high band program. Students must be able to play a minimum of four major and two minor scales and be able to read rhythms in a variety of meters and time signatures.

Jazz Band

Recommended for Grades: 10-12

Full Year

1 Credit

Jazz Band is open to instrumental music students with previous musical training either in band or through legitimate private lessons. The instrumentation is standard jazz, Saxophones, Trombones, Trumpets, Guitar, Set Drum, Bass Guitar (or acoustic) and Piano. The class performs three times a year in band concerts. All students work on improvisation, jazz articulations and rhythms.

Crafts

Recommended for Grades: 9-12

Full Year

1 Credit

In this class the student will learn how to construct a variety of projects following basic steps and processes. They will explore a variety of materials including clay, wood, and reeds. Projects will be constructed to develop individual skills and express personal ideas and feelings. The student will also create and utilize a sketchbook to record project information, develop designs and keep personal ideas for projects. No previous art experience is required for this course.

Drawing

Recommended for Grades: 9-12

Full Year

1 Credit

In this course, the student will develop an awareness of the basic elements of design, proportions, and the concept of light and shadow. The student will develop skills in a variety of drawing techniques, including line drawing, pointillism, rendering, and geometric perspective. A variety of materials will be used to develop the students' ability to express themselves in two-dimensional works of art: pencils, colored pencils, inks, colored chalks, oil pastels, and felt-tipped markers. No previous art experience is needed.

Studio Art

Recommended for Grades: 10-12

Full Year

1 Credit

Students in this class will learn basic artistic skills that will lead students to plan, set goals and objectives, and create works of art in their perspective areas of expertise. An appropriate number of projects, goals and objectives must be stated and met through the creation of projects determined by the student and agreed upon by the instructor. The satisfactory completion of either Drawing or Crafts class is required to enter this course.

HEALTH/PHYSICAL EDUCATION

Health

Required Grade: 10

Semester

½ Credit

This course explores the development of the individual from a physical, psychological, and emotional perspective. The content will include an overview of types of pathogens, how they spread, and preventive methods used to control the spread of communicable diseases. Discussion will center on the consequences for the use and abuse of tobacco, alcohol and illegal drugs. Furthermore, a focus on effective, proven prevention strategies will be looked at with the developing adolescent in mind. Finally, an introduction to the study of mental health will examine what it is, how to effectively manage stress and identify certain common disorders and their effects on self, family, and society.

Physical Education Coed

Recommended for Grades: 9

Year Long

1 Credit

This course is recommended to students who have participated in physical education at the middle school level and/or are willing to be at a competitive level in a coed environment. The same design and expectations will apply as with the above mentioned physical education course.

Advanced Physical Education Coed

Recommended Grades: 10-12

Year Long

1 Credit

Advanced physical education will provide an opportunity for the student to participate in many of the same activities which are included in regular Academy physical education but at an advanced level with other physically skilled students. A student must first pass regular Academy physical education while exhibiting an advanced skill level in many of the activities presented in that course before he may enroll in advanced physical education. A strong emphasis will be placed on dressing appropriately for activity throughout the course. A reasonable portion of the student's grade will reflect his achievement in these areas since all are considered essential to obtaining course outcomes.

The primary goal of Advanced Physical Education will be to improve the student's physical fitness level through participation in team activities with skilled participants and individual training programs using weights and running as the primary means. Students completing the Course should become more physically fit as a result and also have a thorough understanding of how to maintain this fitness level on their own in the future.

HS Body Mechanics

Prerequisite: See Course Description

Recommended for grades: 9-12

Full Year

1 Credit

This course is designed to further the opportunity for its participants to learn and reinforce training concepts and techniques used for obtaining and maintaining optimal physical fitness. Students will benefit from comprehensive weight training, performance-based training, and cardiorespiratory endurance activities. Students will build upon the fundamentals of weight training, strength training, aerobic training, fitness training/conditioning, nutrition, and applied functional sciences (i.e., the convergence of physical,

biological and behavioral sciences that consist of the principals, strategies, and techniques process for functional assessment, training and conditioning, rehabilitation and injury prevention). *Approval from one of two sources: a) a previous Benzie Central Academy or middle school Physical Education instructor; b.) a Benzie Central coach that coached the prospective Body Mechanics for an entire athletic season within the last calendar year.*

INDUSTRIAL ARTS/AGRICULTURAL

Agricultural Mechanics and Welding

Recommended for Grades: 10-12

Full Year

1 Credit

An introductory course designed to give students basic knowledge in ag mechanics (small engines) and welding. This is a hands-on course where students will be working in the shop most days. You will get dirty and be required to wear proper shop clothing and protective equipment. First semester is the small engines unit where students will learn shop safety, measurement, tool ID, small engine theory (2-stroke and 4-stroke), fuel mixing and basic maintenance, and small engine parts and systems. Each student will be required to bring in a 2-stroke or 4-stroke one-cylinder engine to disassemble and put back together. Second semester is the welding unit where students will learn welding safety, metal cutting and grinding, welding theory (SMAW and GMAW), metals and materials, and welding practice and projects. Students will get hands-on experience welding straight beads and simple joints and will complete 2 welding projects. Students may take the course a second year where they will have the opportunity to do advanced projects and assist beginning students.

Agricultural Shop and Construction

Recommended for Grades: 10

Full Year

1 Credit

This course gives students basic knowledge in shop woodworking and ag-related construction. This is a hands-on course where students will be working in the shop most days. You will get dirty and be required to wear proper shop clothing and protective equipment. In first semester, students will focus on basic woodworking and joinery techniques including shop safety, measurement, woodworking hand tools, power hand tools, power shop tools, wood and lumber, layout and cutting, joinery, and finishing. Students will complete at least one project they will be able to take home. Second semester will focus more on outside construction including platform framing, post and beam framing, farm structures, concrete, and plumbing. All students will participate in larger class construction projects. 2nd semester projects will build on the basic skills learned in first semester. Students may take the course a second year where they will have the opportunity to do advanced projects and assist beginning students.

Industrial Arts

Grades: 9

Full Year

1 Credit

In this course students will learn to safely use tools and machines by making things and doing basic repair work. Student projects will involve woodworking, metalworking, electrical, plumbing and mechanical skills. Students will also learn basic technical drawing skills and have the opportunity to compete in local, regional and state project fairs. This course will teach students practical, hands-on skills and/or prepare students to enter a program at Benzie's Ind Arts/FFA program or the Career-Tech Center.

MATHEMATICS

Algebra I

Recommended for Grades 10-12

Year Long

1 Credit

Algebra I is the study of linear, absolute value, quadratic and exponential functions and inequalities. For each family of functions there will be a study of graphs and equations as well as a connection between the different representations and their connection to real-world situations. The study of linear and exponential functions will also be connected to arithmetic and geometric sequences. The class also looks at systems of all types of these equations.

Algebra II (Statistics)

Prerequisite Algebra I

Recommended for Grades 10-12

Year Long

1 Credit

Algebra II is a continuation of Algebra I. It takes the same family of functions approach by studying graphs, equations, real-world situations and connection different representations. It looks at polynomials, exponentials, logarithms, and rational functions as well as conic sections and a continued look at sequences and series. One marking period of this class will be dedicated to the study of probability and statistics. This will cover all probability and statistics standards for the Academy common core.

Honors Algebra II

Prerequisite teacher recommendation open to students who excel in Algebra I & Geometry

Recommended for Grades 10-12

Year Long

1 Credit

Honors Algebra II will build on concepts taught in Algebra I and Geometry while adding new concepts to the student's repertoire of mathematics. Continuing the study of exponential and logarithmic functions and further enlarge the catalog of function families to include rational and trigonometric functions. The primary strands of context expectation include quantitative literacy and logic, algebra and functions, geometry and trigonometry, and statistics and probability.

Geometry

Prerequisite Algebra I

Recommended for Grades: 9-12

Year Long

1 Credit

This course in basic geometry is designed to give the student a better understanding of a logical mathematical system. The course is developed allowing students to use algebra skills already learned. The primary focus will be towards mastering the Michigan Geometry Content Standards.

Honors Geometry

Prerequisite Algebra I

Open to students who have excelled in Algebra I with teacher recommendation or those who receive 90% or above on the Geometry Placement Test

Year Long

1 Credit

This course in Euclidean geometry is designed to give the student a better understanding of a logical mathematical system. Using algebra skills already learned students will be challenged with assignments, projects, and thought producing challenges. In addition to the Michigan Content Standards topics include inductive and deductive thinking, logic, polygons, congruence, similarity, circles, parallelism, and an introduction to right triangle trigonometry.

Pre-Calculus

Prerequisite Algebra I, II & Geometry

Recommended for Grades: 11-12

Year Long

1 Credit

This is an advance course covering coordinate geometry, polynomials, exponents and logarithms, and a comprehensive coverage of trigonometry. Other topics include statistics and probability. This course is designed to prepare the student for college-level mathematics and AP Calculus in particular. A graphing calculator is recommended.

Advanced Placement Calculus

Prerequisite Algebra I, Algebra II, Geometry, and Pre-Calculus

Recommended for Grades: 12

Year Long

1 Credit

AP Calculus AB is the study of limits, derivatives and integrals. It covers basic computations as well as problem solving and technology use. It includes all College Board required topics and culminates with the AP test given in May of each year. For a complete syllabus, see the AP Calculus teacher.

Consumer Education

Recommended for Grades: 11-12

Year Long

1 Credit

This class helps students develop skills necessary to becoming a more informed and successful consumer. Consumer rights and responsibilities, influences on and by consumers in the world provide backdrop as students learn about compound interest, saving, borrowing, credit cards, insurance, and taxes. Throughout the year, students review, practice, strengthen and apply their own math skills learned in previous courses such as pre-algebra, algebra 1 and algebra 2. This practical course offers hands-on activities, computer simulations and video, along with textbook reading/writing and performance task, to prepare students for their roles as workers, consumers and family members.

Algebra 1 Lab

Recommended for students wishing to gain additional algebra skills

Year Long

1 elective credit

This class is designed, to improve the math skills necessary to be successful in an Algebra 1 course. Students will be assessed at the beginning of the semester and areas of improvement will be defined. The class will be designed around these areas and concepts will be taught with a multiple representation approach. Possible topics will include operations with fractions and decimals, operations with positive and negative integers, setting up graphs, displaying data, and interpreting tabular and graphical information. More topics could be added based on the assessment given in the beginning of the course. There will be a selection process to fill this class.

SCIENCE/AGRICULTURE

Animal Science

Recommended for Grades: 9-12

Full Year

1 Credit

A course designed as an introduction to food and fiber production. Emphasis will be divided between commercial agriculture and practical livestock production for individuals and families. This is a hands-on course in which students will be involved in work and tasks related to raising and breeding animals. This includes feeding and watering animals, cleaning animal pens, shoveling manure, handling and moving animals, and performing care tasks such as shearing and hoof/nail trimming. This means you will get DIRTY sometimes. Units of instruction will include introduction to agriculture, poultry production, pest and disease management, animal facilities design, animal nutrition, animal reproduction, large animal management (sheep), small animal management (rabbits), poultry production (broiler chickens), record keeping, animal judging, agribusiness, and aquaculture. Instruction in leadership (FFA) and supervised agricultural experience program development as well as exposure to agricultural career opportunities will be provided. No prerequisite required.

Plant Science

Recommended for Grades: 9-12

Full Year

1 Credit

A course designed as an introduction to plants and agricultural crops. Emphasis will be divided between commercial agriculture and practical food production for individuals and families. This is a hands-on course in which students will be involved in work and tasks related to growing and managing plants. This includes, preparing soil, turning compost, filling pots, planting seeds, weeding, and watering. This means you will get DIRTY sometimes. Units of instruction will include introduction to agriculture, plant anatomy and physiology, soils and plant nutrition, fruit crops, plant propagation, composting, greenhouse plant production, maple syrup production, agribusiness, and gardening. Instruction in leadership (FFA) and supervised agricultural experience program development as well as exposure to agricultural career opportunities will be provided. No prerequisite required.

Earth Science

Grade 9

Full Year

1 Credit

This class will provide students with scientific knowledge and experience from the Earth and Space Sciences in real-world contexts. The goal of this interdisciplinary course is for students to develop an understanding of the earth and the solar system as a set of closely coupled systems that can be useful in explaining natural phenomena and making decisions about real-world problems. Units covered include Astronomy, Plate Tectonics, Seismology, Volcanology, Mineralogy, Paleontology, Glaciology, Meteorology and Oceanography. Objectives for this course have been selected from the Michigan Department of Education's Academy Science content expectations.

Honors Earth Science

Teacher Recommendation

Grade 9

Full Year

1 Credit

This class provides students with scientific knowledge and experiences from the Earth & Space Sciences in real-world contexts but will explore the Academy Science Context expectations to a greater depth than the regular Earth Science course. The goal of this interdisciplinary course is for students to develop an understanding of the earth and the solar system as a set of closely coupled systems that can be useful in

explaining natural phenomena and making decisions about real-world problems. Units covered include Astronomy, Plate Tectonics, Seismology, Vulcanology, Mineralogy, Paleontology, Glaciology, Meteorology and Oceanography. Objectives for this course have been selected from the Michigan Department of Education's Academy Science content expectations

Environmental Science

***Recommended for 10th-12th Grade**

Full Year

1 Credit

Environmental Science is the study of the natural environment and the interdependence of all life forms. Students will gain a better understanding of the environment including the dependence of human life on the finite resources of the planet through a combination of interdisciplinary lessons and hands-on experiences. Emphasis will be placed upon natural biomes, biological diversity, local ecosystems, current environmental issues, and sustainable conservation practices.

Biology

9th & 10th grade

Full Year

1 Credit

Biology is the study of life. This Biology course is a survey course, which incorporates new perspectives and understanding across the major sub-disciplines of biology. Genetics, cell biology, development, evolution, classification, animals and human body systems are some of the areas covered. We will examine the human role in the world of living things in relation to contemporary problems. The course will have a lab-based, hands-on component. Understanding through exploration is one goal of this course. Students will be sensitized to various moral and environmental issues brought about by research in bioengineering and other areas of biological research. They will be provided with tools with which to make educated decisions regarding these new technologies and developments. This class promotes scientific thinking through problem solving, a process that encourages curiosity and careful inquiry.

Honors Biology

Prerequisite Recommendation by 8th grade Science & Algebra I teachers

9th & 10th grade

Full Year

1 Credit

Same as Biology with emphasis on preparing students for Advanced Biology and Advanced Placement Biology.

Chemistry

Prerequisite Algebra I

Recommended for Grades: 11-12

Full Year

1 Credit

This course is a lab-intensive hands-on application of many general chemistry concepts. Topics for this course will include periodic law and bonding, stoichiometry (balancing equations and using a mass/mole concept to figure chemical products), gas laws, solutions, redox reactions, Thermo chemistry and acid/base reactions. The course is designed to prepare students for entry-level college chemistry courses and provide students with an analytical lab experience. Pre-required courses include a good understanding and mastery of the concepts taught in Algebra.

Honors Chemistry

Teacher Recommendation

Full Year

1 Credit

In addition to general chemistry requirements, Honor's chemistry topics will include equilibrium, chemical kinetics and some organic chemistry. Honor's chemistry students will have an increased homework load and an accelerated schedule for general chemistry topics

Advanced Placement Chemistry

Prerequisite Algebra I, Algebra II, Geometry, Chemistry

Recommended for Grades: 12

Full Year

1 Credit

Students opting for this course will need to understand that it is designed to cover the same topics that a first year general inorganic Chemistry course at most colleges and universities will cover. Tests and labs will be of the same nature that would be found in most colleges. Students will also enter into an agreement that it will be expected that to complete this course, the Advanced Placement examination will be taken in May to determine their placement and credit for college Chemistry courses.

Physics *

Prerequisite: earned credit in HS math or recommendation from current math teacher

Recommended for Grades: 10-12

Full Year

1 Credit

***May be used as a senior year math credit**

Physics is everywhere. Students who choose this course will learn it through hands-on activities, video, computer simulations, and exploratory projects, as well as through discussion, questioning, textbook and group work. Students will expand their understanding of concepts and strengthen their problem solving abilities as they gather, analyze and interpret data. Topics include forces, motion, energy, waves, sound, light, electricity and atomic energy. Projects associated with each topic allow students to apply math skills like using formulas, graphing, and modeling, as they prepare for the SAT, ACT and the challenges of education later in life. This course will prepare students to take entry-level physics in college, as well as giving them a more complete understanding of physics found everywhere in the living and nonliving universe all around – everywhere from music and body systems to machines, visual art and space travel.

Advanced Physics

Prerequisite: Completion of an algebra course with a grade of B or better

Recommended for Grades: 10-12

Full Year

1 Credit

Advanced Physics is a course designed to ensure that students will procure the fundamental physics content and skills to prepare them for a college level or AP Physics course as well as be equip them to excel on scientific reasoning sections of the SAT and ACT. Students will engage in activities to develop expertise in: inquiry based data collection, analysis using computer based graphical modeling (such as Excel), deriving formulae from data, utilizing interpolation and extrapolation to predict behavior in systems, and scientific writing to make claims that can be justified with evidence and reasoning. Students will construct representations of major paradigms in physics and test predictions by deploying classical algebraic and trigonometric approaches. Students will also gain an understanding of the need for calculus in building accurate representations of the physical Universe and have a greater understanding of the Nature of Science as a discipline in terms of knowing how scientific theories are constructed and validated. Assessment is mastery based and end of unit practicums will engage students in design thinking and engineering tasks. Units include: Constant Velocity, Accelerated Motion, Net Force Modeling, Two Dimensional Motion, Electromagnetic Charge & Field Modeling, Circuit Electricity, Waves, Light & Sound and the Analysis of Energy Storage and Transfer in Physical Systems. It may be helpful to have completed Geometry and/or take Geometry concurrently with College Prep Physics.

Advanced Biology

Prerequisite Biology "B" or better, Chemistry "B" or better

Recommended for Grades: 11 & 12

Full Year

1 Credit

This class is provided to allow college-bound students to expand their conceptual framework, factual knowledge, and analytical skills that initially were developed in their introductory biology class. The first semester of work is devoted to the study of heredity, populational biology (hardy Weinberg), basic biological chemistry of carbohydrates, lipids, proteins, and nucleic acids and the biochemistry of the light and dark reactions and the chemiosmotic synthesis of ATP. During the second semester the focus will shift to the structure, function and biochemistry of the various vertebrate organ systems, the biochemistry of glycolysis and cellular respiration, and introductory biometrics. Occasionally some projects and laboratory work will necessitate that students spend additional time in the laboratory. Every student planning on attending college should be enrolled in Advanced Biology in their junior or senior year. Almost every career path requires credits earned in Intro level Biology in college.

Advanced Placement Biology

Prerequisite Chemistry “B” or better

Recommended for Grades: 11 & 12

Full Year

1 Credit

This class is provided to prepare college-bound students to take the Advanced Placement examination in Biology. Students enrolled in AP Biology must also be concurrently enrolled in Advanced Biology. Taken together the classes cover the entire AP Biology course description. A complete AP Biology course description is published by the College Board. Copies of this complete description can be obtained by the principal or AP Biology instructor. Topics covered in AP Biology from molecules and cells include enzymology, cells, membranes, sub cellular organization, and cell cycle and regulation. Topics covered from heredity and evolution include gametogenesis, DNA and RNA structure and function, gene regulation, mutation, viral structure and replication, nucleic acid technology, early evolution of life, evidence for evolution and mechanisms of evolution. Topics covered from organisms and populations include evolutionary patterns, survey of the diversity of life, phylogenetic classification, evolutionary relationships, reproduction, growth and development of plants and animals, structural, physiological, behavioral adaptations and responses to the environment, population dynamics, communities and ecosystems and global issues.

SOCIAL STUDIES

U.S. History

9th Grade

Full Year

1 Credit

The study of United States history prepares students to take up the challenges of life in contemporary society. This full year course introduces students to the history of the United States with a focus on the post-Civil War Industrial Age to the present day. Beginning with a review of prior political, intellectual, and demographic transformations that shaped the nation, students learn about major political, philosophical, and historical underpinnings of our government. Throughout the course, students analyze how ideas of freedom and equality have shaped our collective past and explore implications for the future. Adopting a chronological approach, students analyze their causes and effects of events in the nation’s past. They use primary and secondary sources to explore time and place in the twentieth century. Within their historical study of twentieth century America, students deepen their understanding of major geographical themes, economic principles, and significant concepts in United States government. Throughout the course students learn to develop important questions, conduct inquiry, and evaluate evidence. They also read a variety of historical arguments and develop skills in writing evidentiary-based arguments and historical narratives. By helping identify common and diverse strands that formed and continue to shape life in America, students develop the habits of mind

essential for democratic citizenship.

Civics

Required for Grade: 10

Full Year

1 Credit

Civics introduces students to the American political system -- its core values and principles as set forth in foundational documents, as well as its origins, institutions and operations. The course also acquaints students with political parties, historical development of American politics, voting and elections, public opinion and interest groups, branches of federal government, state and local government, criminal and civil law, civil rights, and government and economy. Students are also introduced to the rights and responsibilities of citizenship and of democratic civic involvement. They also are required to fulfill community service obligations.

World History

11th Grade

Full Year

1 Credit

World History gives students the opportunity to explore recurring themes of human experience common to civilizations around the globe from ancient to contemporary times. This course centers on the following themes: the origins and expansion of the global capitalist economy and the varied types of resistances to that expansion, the rise of secular/scientific thinking and politics, the transformation of religion in the modern world, the influence of technology. Five regions of the world surveyed include: Africa, Asia, Pacific Islands, Europe and Latin America. Historical analysis and interpretations will be surveyed through the lens of comparative examination of the economic, cultural, political, social and technological commonalities and differences between human societies. This course is required in the 11th grade.

Economics

Requirement for Grade 10

Semester

.5 Credit

This one-semester required course builds economic literacy in students. The overarching problem of scarcity, unlimited human wants pursuing limited resources, is a focal point of the course. Students deepen their prior knowledge of basic economic concepts and apply them to national and international economic systems and problems as a whole. They explore the various challenges presented by both micro and macro- economic perspectives. By focusing on microeconomics, students study how interactions of buyers and sellers impact price and the role of trade-offs and incentives in consumer and business decisions. Students also examine the macroeconomic goals of high employment, stable prices, and economic growth as they explore how the flow of goods and services and money are used measure and influence the status of the economy. After examining the role that governments in the United States play in a market economy, students assess how the activities of households, firms, and governments have global consequences in an increasingly interconnected world. Throughout the course, students use a variety of media to compile, analyze, and present statistical data pertinent to economic problems. Students apply their economic knowledge to make informed decisions as consumers and to participate as citizens in deciding matters of economic policy.

Current Events

Recommended for grades: 11, 12

1 Semester

.5 Credit

Current events is a one semester class designed to keep the student educated in the current news happenings throughout the world. It is involved with all three levels of government: local, state, and federal. The course will involve many different areas of study at these levels including, but not limited to, law and order, religion, economics, foreign affairs, sports, the arts, and politics. The course will use many different media sources for information.

Psychology

Recommended for grades: 11, 12

Full Year

1 Credit

This course explores human behavior and growth. Special attention will be paid to approaches to psychological thought and theory, methods of psychology, working of the mind and body, consciousness, and sociocultural influences on behavior. Additionally, memory, intelligence, developmental stages, personality, gender differences and adjustment & breakdown of behavior will be studied.

Sociology

Recommended for grades: 11, 12

Full Year

1 Credit

Sociology explores human interactions and behavior through social interaction with special emphasis on culture, the socialization process, social stratification, collective behavior, social institutions, and social change. Special attention is paid to U.S. culture including minorities, and the rules we live by.

General Law

Recommended for grades: 11, 12

1 Semester

.5 Credit

General Law will explore everyday laws and how they apply to individuals. Through this course one will better understand their rights and responsibilities in our society.

Advanced Placement Psychology

Prerequisite: None

Recommended for grades: 11, 12

Full Year

1 Credit

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 with psychology. They also learn about ethics and methods psychologists use in their science and practice.

Advanced Placement U.S. History Full Year

Prerequisite: Completion of U.S. History

Recommended for grades: 11, 12

Full Year

1 Credit

AP US History is a college-level course that covers the years from 1877 to the present. AP US History is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and materials in U.S. History. Emphasis is placed on the significance of the political, economic, social, and intellectual life of the United States in contemporary times. The AP course is distinguished from the regular course by additional supplemental reading, interpretation of primary sources, further development of writing skills and classroom discussion. In the Spring, students are expected to attend study sessions in preparation for the Advanced Placement exam, which is administered in May.

TECHNOLOGY & BUSINESS

Computers 9

Required for Grades: 9

Year Long

1 Credit

This course develops the skills needed to use Web 2.0 tools and a variety of applications to produce quality projects which can be integrated into all subject areas throughout the Academy experience. Learning how to use the Internet and online databases for the purpose of academic research and being a good digital citizen will be stressed. Basic photo-editing, podcasting and other multi-media projects will be created throughout the year. Students will learn how to use Microsoft Office software effectively to create documents, spreadsheets and presentations. Emphasis on creating a digital portfolio, on-line learning experiences and career exploration will be included in this year long course.

Multi-Media

Grades: 10-12

Year Long

1 Credit

Multi-media class is a journalism class open to students in the 10th, 11th, and 12th grades. The course is designed to offer students experiences in journalism. They will have opportunities to hone their journalism skills by participating in all elements of both broadcast and print production. The course includes instruction in effective and responsible journalistic writing forms and techniques, broadcasting, sales and marketing, and business management. Students are required to work outside the school day. Consideration for enrollment is based on an application along with a 60-second video pitch. Students must have a B average in their ELA classes.

WORLD LANGUAGES

Spanish I

Recommended for grades 9-12

Year Long

1 Credit

Students will be introduced to the Spanish language and culture. In a variety of classroom activities, students will acquire vocabulary and grammar in order to speak Spanish. While the focus of the course will be on speaking, students will also learn to listen to, read, and write Spanish. Student success in Spanish is dependent upon the completion of daily homework, weekly vocabulary quizzes, tests, and projects. A strong understanding of English grammar is also stressed.

Spanish II

Prerequisite Spanish I

Required

Year Long

1 Credit

Students will continue their study of the Spanish language and culture. Students will expand the vocabulary and grammar learned in the first year. The focus of the course will also expand to include writing as well as speaking. The main goal of the Spanish II course is to expand their use of the grammar to include the future and past verb tenses as well as present tense. Students will be able to speak in conversations and write a one-page paper about a given topic. Students will expand their cultural understanding of Spanish-speaking countries. Student success in Spanish II is dependent upon the completion of daily homework, weekly vocabulary quizzes, tests, and projects.

Spanish III

Prerequisite Spanish II

Recommended for grades 11-12

Year Long

1 Credit

In Spanish III students continue their study of the grammar, vocabulary, and culture of the Spanish speaking World. A bulk of the year will be spent with the grammatical concept of the subjunctive mood and how it is used. More authentic, longer pieces of literature, art, and poetry will enhance their studies.

Principles of Accounting I & II (*Direct Credit from Baker College*)

Grades: 11, 12

Year Long

1 Credit (HS) and Baker College credit

Principles of Accounting I (1st semester) Introduces students to the concepts of financial accounting, including the completion of the accounting cycle, preparation of the financial statements, and detailed coverage of cash, receivables, inventory, fixed assets and liabilities. Successful completion of the first semester will result in 3 Baker College credits.

Principles of Accounting II (2nd semester) enables the students to prepare, evaluate, and use accounting data as an introduction to the accounting profession. The mechanics of financial accounting and the overall effect of accounting procedures on published financial statements are examined in detail. Alternative accounting procedures and their impacts on the financial statements are also examined. Coverage includes extensive examination of the accounting equation, as well as the accounting process as it relates to receivables, inventory, fixed assets, and bonds payable.

Study Hall

Seminar

Recommended for grades 9-12

Year Long

.25 Credit

This year-long course is designed to help students with organization and manage the academic rigor and social issues of Academy. This course covers various study skills, note-taking, test-preparation, research procedures, and reading and writing strategies. Students will learn and practice organizational skills and will receive a daily agenda to use in all their BCHS classes.

The course will also address social issues that affect students as they begin to explore Academy and post-secondary planning. Seminar is designed to help students during their transition to Academy – its academic and personal demands – and help ensure their educational success.