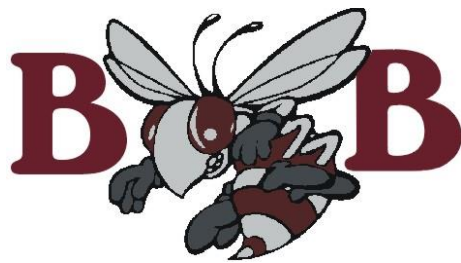


Course Offering Handbook



2022-2023

Byron-Bergen Sr. High School
Bergen, New York

Ashley Hill – school counselor

Kristie Holler – school counselor

Robert Kaercher – college and career counselor

ahill@bbschools.org

kholler@bbschools.org

rkaercher@bbschools.org

494-1220 x 2504

494-1220 x 2604

494-1220 x 2069

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NEW YORK STATE LEARNING STANDARDS

All courses at Byron-Bergen Sr. High School are part of the K-12 curriculum designed to attain the New York State Learning Standards. Students will demonstrate the knowledge and skills necessary in:

THE ARTS

1. Creating, Performing, and Participating in the Arts
2. Knowing and Using Arts Materials and Resources
3. Responding to and Analyzing Works of Art
4. Understanding the Cultural Dimensions and Contributions of the Arts

ENGLISH LANGUAGE ARTS

1. Listening, Speaking, Reading, and Writing for Information and Understanding
2. Listening, Speaking, Reading, and Writing for Literary Response and Expression
3. Listening, Speaking, Reading, and Writing for Critical Analysis and Evaluation
4. Listening, Speaking, Reading, and Writing for Social Interaction

WORLD LANGUAGES

1. Communicating in a Language Other Than English
2. Developing Cross-Cultural Skills and Understanding

HEALTH EDUCATION, PHYSICAL EDUCATION AND FAMILY & CONSUMER SCIENCES

1. Maintaining Personal Health and Fitness
2. Maintaining a Safe and Healthy Environment
3. Managing Personal and Community Resources

SOCIAL STUDIES

1. Understanding the History of the United States and New York
2. Understanding World History
3. Understanding Geography
4. Understanding Economic Systems
5. Civics, Citizenship, and Government Understanding

MATHEMATICS, SCIENCE, AND TECHNOLOGY

1. Engaging in Analysis, Inquiry and Design
2. Managing Information Systems
3. Understanding Mathematics

Content Strands

- a. Number Sense and Operations
- b. Algebra
- c. Geometry
- d. Measurement
- e. Statistics and Probability

Process Strands

- a. Problem Solving
- b. Reasoning and Proof
- c. Communication
- d. Connections
- e. Representation

4. Understanding Scientific Concepts and Principles
5. Applying Technological Knowledge
6. Understanding Common Themes Across Math, Science, and Technology
7. Applying Problem Solving Skills to Address Real-Life Problems

CAREER DEVELOPMENT AND OCCUPATIONAL STUDIES

1. Exploring Career Options
2. Applying Academic Learning in Real World Situations
3. Developing Universal Foundation Skills
4. Pursuing Career Majors

ACE PROGRAM

The ACE Program is a joint program between Genesee Community College (GCC) and area high schools that allows highly motivated seniors to enroll in college level courses. Students in the program have the opportunity to take specially selected college courses at Genesee Community College. Course selections are subject to change. See your school counselor for the latest list of course offerings. Parents/students are responsible for transportation and for tuition (60% less than normal tuition). For more information, please contact your school counselor. Counselors will also discuss this with students in their junior year, when discussing course selection for their senior year.

Students are able to take college level courses, independently, at full cost, on their own time. Potential options exist for half day dismissal to attend classes. If this is of interest, please discuss this option with your counselor.

✓ DEFINITIONS

UNIT	<i>A unit is the credit earned by meeting all requirements for a subject taken for a full year.</i>
1/2 UNIT	<i>A half-unit is the credit earned by meeting all requirements for a subject taken for one-half year or one-half time basis for a full year. Physical education is an example of a half-unit subject.</i>
PROGRAM	<i>A student's academic program consists of all the subjects required of every student, including his/her chosen field. This includes all courses -- constants, majors and electives -- as planned toward each student's graduation.</i>
CORE SUBJECT	<i>The core subject are subjects required of every student, regardless of major.</i>
ELECTIVES	<i>An elective is a course other than a core chosen by the student to complete the high school program.</i>
OCCUPATIONAL EDUCATION	<i>Refers to courses and/or major sequences in Technology or Occupational/Vocational Education.</i>
QUARTERLY AVERAGE	<i>Quarterly averages are used to determine honor roll status.</i>
GPA	<i>Grade Point Average – The average of all the grades in every class the student has taken in grades 9-12. Each class has the weight of 1.0.</i>
WEIGHTED GPA	<i>Weighted GPA – the above equation taking into account the heavier weight of an Advanced Placement (AP) course. The AP class will be weighted at 1.08.</i>

DIPLOMA REQUIREMENTS

Students need to earn twenty-two (22) units of credit, including two credits in physical education, to receive a Regents Diploma. Such units of credit shall incorporate the commencement level of the New York State Learning Standards in: English Language Arts, social studies, mathematics, science, technology, the arts (music, theatre, dance or art), LOTE (Languages Other than English), health, physical education, family and consumer science, and career development and occupational studies. Such units shall include:

- **English** 4 units
- **Social Studies**
 - Global History 2 units
 - American History 1 unit
 - Economics ½ unit
 - Participation in Government ½ unit
- **Science**
 - Living Environment (or other Life Science) 1 unit
 - Additional Science (1 must be a physical science) 2 units
- **Mathematics** 3 units
- **Fine Arts** 1 unit
 - Credit may be chosen from:
 - Studio Art, Music Theory
 - Music (Band or Chorus), Music Appreciation
 - Design and Drawing for Production
- **Health Education** ½ credit
- **LOTE** 1 credit
- **Physical Education** 2 credits
- **Electives** 3½ credits

In addition, all students shall demonstrate competency at the commencement level by achieving a score of 65 or above for a Regents diploma on the Regents exams listed below.

Regents Comprehensive Examination in English

Regents Examination in Global History & Geography

Regents Examination in Living Environment, OR Earth Science, OR Chemistry, OR Physics

Regents Examination in Integrated Algebra, OR Geometry, OR Algebra 2/Trigonometry

Regents Examination in United States History & Government

REGENTS DIPLOMA WITH ADVANCED DESIGNATION

In addition to the required courses and exams of the Regents diploma, students may pursue a Regents Diploma with Advanced Designation. To earn such a diploma, students must:

Complete additional course work that includes -

A three unit sequence in Languages Other than English (LOTE)

OR

A five unit sequence in one of the following:

- Art
- Music
- Fine Arts
- Technology
- BOCES Vocational Sequence (*Career Skills and Financial Skills are Required*)

AND

Pass additional Regents examinations that include -

Integrated Algebra AND Geometry AND Algebra 2

Any two Regents exams in Science

Comprehensive Examination in Spanish (if using a LOTE three unit sequence)

The words “**with honors**” may be added to the diploma if a student has earned a cumulative average of at least 90 percent in all Regents examinations required for the diploma. Cumulative averages below 90.00 will not be rounded upward to 90 percent.

REGENTS EXAM INFORMATION

The following is information regarding which Regents exams New York State requires students to take in order to graduate from high school. School districts may establish diploma requirements in addition to the State requirements.

To receive a **Regents Diploma**, students must pass five Regents exams with a score of 65% or above.

- ✓ English
- ✓ Algebra 1 OR Geometry OR Algebra 2
- ✓ Global History & Geography
- ✓ United States History & Government
- ✓ Science (Living Environment, Chemistry, Earth Science or Physics)

To receive a **Regents Diploma with Advanced Designation**, students must pass nine Regents exams with a score of 65% or above.

- ✓ English
- ✓ Algebra AND Geometry AND Algebra 2
- ✓ Global History & Geography
- ✓ United States History & Government
- ✓ Science (Two of the following exams - Living Environment, Chemistry, Earth Science, or Physics)
- ✓ A Language Other Than English

OR

In lieu of a Language Other Than English, a student may pursue a 5-unit sequence in:

- ✓ Music
- ✓ Art
- ✓ Technology
- ✓ Vocational Education (BOCES) and Career Skills/Financial Management
- ✓ Fine Art (Combination of Art and Music)

ALTERNATIVES TO CERTAIN REGENTS REQUIREMENTS

A student may earn a maximum of 6 ½ units of credit for a diploma without completing units of study for such units of credit through a process called Course Credit by Examination if:

- Based on the student's past academic performance, the superintendent of a school district or the chief administrative officer of a non-public school, or his or her designee, determines that the student will benefit academically by exercising this alternative;
- The student achieves a score of at least 85%, or its equivalent as determined by the commissioner, on a State-developed or State approved examination;
- The student passes an oral examination or successfully completes a special project to demonstrate proficiency, as determined by the principal, in the subject matter area; and

********This process must have prior approval of the Jr./Sr. High School Principal.***

SR. HIGH SCHOOL CREDIT FOR JR. HIGH SCHOOL COURSEWORK

Several opportunities exist for 8th graders to earn Sr. High School credits toward graduation at the end of their middle school careers:

- Passing Jr. High School LOTE courses and Regional exam (1 credit)
- Successful completion of Math 8 – Algebra (1 credit)
- Successful completion of Science 8 Advanced, also called Living Environment (1 credit)

GRADUATION PLAN

8 th Grade	9 th Grade	10 th Grade	11 th Grade	12 th Grade	TOTAL CREDITS	
	English 9	English 10	English 11	English 12		4
	Global 9	Global 10	US History	GOV/ECON		4
Math	Math	Math	Math	Math		3
Science	Science	Science	Science	Science		3
	PE	PE	PE	PE		2
LOTE						1
	Art Music Tech					1
		Health				.5
	Electives	Electives	Electives	Electives		3.5
Credits:	Credits:	Credits:	Credits:	Credits:		22
Notes:	Notes:	Notes:	Notes:	Notes:	Notes:	

Regents	
Exam	Score
Math	
Science	
Social Studies	
ELA	

BYRON-BERGEN HIGH SCHOOL COURSE DESCRIPTIONS



ENGLISH LANGUAGE ARTS



Students will access, generate, process, and transfer information using appropriate technologies...

Four credits of English are required for graduation. As outlined in the New York State Learning Standards, the English Language Arts Program will develop the skills and strategies that students need to read, write, speak and listen for the following purposes: for information and understanding, for literary response and expression, for critical analysis, and for social interaction. In addition to the required courses, English electives may be taken. Elective offerings are developed and offered based upon student interest and enrollment.

English 9

Prerequisite: Freshman Standing

Grade: 9

Unit: 1 credit

In ninth grade ELA students will read, discuss, and analyze contemporary and classic texts. There will be a strong emphasis on reading closely and responding to text-dependent questions, annotating, and developing academic vocabulary.

They will also engage with literary and nonfiction texts to produce evidence-based claims to analyze the development of central ideas and text structure. Students will develop and strengthen their writing by revising and editing, and refine their speaking and listening skills through discussion-based assessments as well as formal and informal public speaking opportunities.

The year concludes with a research paper after reading [Animals in Translation](#) and then argumentative writing.

English 10

Prerequisite: English 9

Grade: 10

Unit: 1 credit

With the implementation of the Common Core State Standards (CCSS) comes a refined approach towards the study and practice of English Language Arts at the grade 10 level. The following are considerable pedagogical shifts that will affect the course of our year:

- 1 – Students will read a true balance of informational and literary texts
- 2 – Students will build knowledge about the world through texts rather than the teacher or activities
- 3 – Students will read central, grade appropriate text around which instruction is centered
- 4 – Students will engage in rich and rigorous evidence-based conversation about texts
- 5 – Student writing will emphasize the use of evidence from sources to inform or make an argument
- 6 – Students will constantly build the transferable vocabulary they need to access grade-level complex texts

To be able to meet these challenges we will be working with a four-term outline:

First Semester: **How Do Authors Develop Complex Characters and Ideas?**

Second Semester: **How Do Authors use Rhetoric and Word Choice to Develop Ideas or Claims about Human Rights?**

Third Semester: **Researching Multiple Perspectives to Develop a Position**

Fourth Semester: **How do Authors Use Craft and Structure to Develop Characters and Ideas?**

During the course of the year, we will apply these skill sets to the investigation of selected literature and non-fiction (informational) texts from a variety of sources with a concentration on world literature. Selections may include Ethan Canin’s “The Palace Thief”, H.G. Bissinger’s “Friday Night Lights”, Martin Luther King Jr.’s “Letter from Birmingham Jail”, Rebecca Skloot’s *The immortal Life of Henrietta Lacks*, and William Shakespeare’s *Macbeth*.

English 11

Prerequisite: English 10

Grade: 11

Unit: 1 credit

English 11 is a course focused on discussion, argumentative and analytical writing, and reading and analyzing literature and non-fiction. A brief unit on media literacy is also part of the course. Additionally, students will engage in scholarly research and write a research paper in which they defend a position. Typically, we read *The Great Gatsby*, *Hamlet*, *One Flew Over the Cuckoo’s Nest*, and *The Things They Carried*. At the end of the year, students will take the Regents Exam in English, an exam required for graduation. Throughout the year, preparation and practice for this exam will help students hone specific skills on which they will be tested.

Advanced Placement (AP) Language and Composition

Prerequisite: English 10

Grade: 11

Summer Work Required

Unit: 1 credit

The AP English Language and Composition course focuses on the development and revision of evidence-based analytic and argumentative writing, the rhetorical analysis of nonfiction texts, and the decisions writers make as they compose and revise. Students evaluate, synthesize, and cite research to support their arguments. Additionally, they read and analyze rhetorical elements and their effects in nonfiction texts—including images as forms of text—from a range of disciplines and historical periods. **To achieve AP credit, students will be required to take the AP Language and Composition test in May at a cost of \$96. The culminating act is the AP exam. Students who enroll in AP are expected to participate in this exam, and college credits can be earned pending a successful outcome of the AP exam.**

English 12

Prerequisite: English 11

Grade: 12

Unit: 1 credit

English 12 is aligned to the New York State Next Generation Learning Standards. English 12 is a reading and writing intensive course designed to meet the needs of students who are preparing for the rigors of college-level reading and writing yet at the same time meet the needs of students who are fulfilling the local requirements toward a high school diploma. All students will explore and expand their strengths in reading, writing, speaking, and listening, with grammar and vocabulary supplementing their class work. These skills will be addressed with the use of poetry, the short story, non-fiction texts, and the novel.

Advanced Placement (AP) Literature and Composition

Prerequisite: English 11

Grade: 12

Summer Work Required

Unit: 1 credit

This course is designed for students with substantial and varied reading history, a solid foundation in literary analysis, strong composition skills and exceptional critical thinking skills, and for students who wish to

further improve their writing and deepen their understanding and appreciation of literature. This rigorous course will display the workload and challenges of a typical undergraduate university English Literature course. Students are recommended to read (or reread) at least 12 of the suggested works of literature which are listed at the end of the syllabus, and be independent and responsible students and thinkers. Students will examine, analyze and begin to deconstruct literature from a variety of genres (poetry, drama, essay, novel, and short fiction). Students will explore major literary themes and continue to develop their abilities to recognize and explain symbolism, figurative language, tone, diction, imagery and the way in which authors use language to construct meaning. At the end of the course, you will take the AP English Literature and Composition Exam, given in May. This is a required component of the course. Scoring a 4 or 5 on this exam is typically considered the equivalent of earning a 3.3-4.0 in a comparable college or university level course. Scoring a 3 on the AP exam will typically earn a student college credit at most colleges and universities across the U.S. **To achieve AP credit, students will be required to take the AP Literature and Composition test in May at a cost of \$96. The culminating act is the AP exam. Students who enroll in AP are expected to participate in this exam, and college credits can be earned pending a successful outcome of the AP exam.**

Eclectic English

Prerequisite: English 9

Grade: 10-12

Unit: ½ credit

May be retaken for credit.

This series of seven-week mini-courses is – as its title suggests – an eclectic package of English-related experiences. The purpose of this multi-faceted course is to intellectually engage students with high-interest ELA-related material without burdening them with traditional “English” pedagogy and homework. Students will be asked to periodically engage in creative writing exercises in each of the subsequent units of study and students will produce a personal portfolio. The mini-courses could include elements of the follows: creative writing, music as poetry, the modern novel, Greek mythology, short stories, speeches, and classic movies.

Literature and Psychology

Prerequisite: English 9, English 10

Grade: 11-12

Unit: ½ credit

1. Study Sigmund Freud's theories about the id, ego, and superego and view literature through the lens of psychoanalytic criticism. This involves actual analysis as applied to characters in literature.
 2. Study of a variety of mental disorders listed in the DSM-5. Examine short stories with characters who express their symptoms
 3. Study the genre of Confessional Poetry.
 4. Study Carl Jung's theory of the Collective Unconscious. This involves the study of archetypes as well as the ways in which stories from all over the world have a similar basic construct.
 5. Study the horror genre or fairy tales (or maybe a combination of the two). Class interest will dictate choice.
 6. View a few films that will enhance the understanding of some of what we've studied in class
 7. Complete, a final project which involves reading a "Memoir of Mental Disorder" and studying one section of the DSM-5. You will complete and present a slideshow about the memoirist's experience with their disorder.
- * Discussion drives this course, so the largest part of your grade will involve participation and engagement. You should be ready and willing to engage in reading, discussion, and activities every day. If not, this course may not be for you.



SOCIAL STUDIES



Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United State and New York...

Four credits of Social Studies are required for graduation. Students are required to take Global History and Geography in 9th and 10th grades, which cumulatively accounts for two units of credit, U.S. History and Government (one unit of credit) in 11th grade, and Economics and Introduction to Government (one unit of credit) in 12th grade. All students will take Regents examinations at the end of 10th grade in Global History and Geography and at the end of 11th grade in U.S. History & Government.

Global History and Geography 1

Prerequisite: Freshman Standing

Grade: 9

Unit: 1 credit

Global History and Geography is a two-year course that students take during 9th and 10th grade, which culminates in a Regents examination at the end of the 10th grade. Students will focus on the five social studies standards (geography, world history, US History, economics, and government), common themes that reoccur across time and place (e.g., change, diversity, and nationalism), and eight historical eras. The course is taught chronologically and focuses on exploring historical and cultural differences and similarities between different regions of the world during the same time period. During 9th grade, students will gain an understanding of world history and geography from ancient times until the late 18th century.

Global History and Geography 1 Honors

Prerequisite: Freshman Standing

Social Studies 8 with an 85% average

English 8 with an 85% average

Grade: 9

Unit: 1 credit

Global History and Geography is a two-year course that students take during 9th and 10th grade, which culminates in a Regents examination at the end of the 10th grade. The course is taught chronologically and focuses on exploring historical and cultural differences and similarities between different regions of the world during the same time period. During 9th grade, students will gain an understanding of world history and geography from ancient times until the late 18th century. Upon completion, students may register for either the Advanced Placement World History or the 10th grade Global History and Geography courses. Advanced Placement students will have the opportunity to earn college credit by achieving a satisfactory score on the AP World History assessment administered in May of their sophomore year. Honors students are also expected to achieve mastery on the Global History and Geography Regents Examination in June of their sophomore year. It is important to note that a strong work ethic, effective time management and organizational skills are essential for success at the honors level. Honors assessments will consist of Advanced Placement World History and modified Advanced Placement World History level essay topics and multiple-choice questions. Exams are designed to enhance comprehension of course material. This honors course will challenge you; it will require your maximum effort; it will push you to reach your maximum potential. There is required work over the summer.

Global History and Geography 2

Prerequisite: Global History and Geography 1

Grade: 10

Unit: 1 credit

Global History and Geography is the second course in a two-year study begun in 9th grade. In 10th grade students will develop an understanding of world history from the late 18th century until modern times, including an emphasis on contemporary issues. Students will focus on the social studies framework including the ten key ideas that continue across time and place. Students are required to take the Global History and Geography Regents exam at the completion of this course as a requirement for graduation.

Advance Placement (AP) World History

Prerequisites: Global 9 Honors with at least 85% average preferred

English 9 with 85 % average preferred

Summer Reading Assignment

Grade 10

Unit: 1 credit

AP World History is an elective course for sophomores combining the Regents Global History and Geography requirements with college level assignments. This course is taught as a college-level course and recommended for students with a strong interest in history and those willing to invest a significant amount of time and effort beyond the classroom. AP World History is designed to be the equivalent of a two-semester introductory college or university world history course. In AP World History students investigate significant events, individuals, developments, and processes in six historical periods from approximately 8000 B.C.E. to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; making historical comparisons; utilizing reasoning about contextualization, causation, and continuity and change over time; and developing historical arguments. The course provides nine units that students explore throughout the course in order to make connections among historical developments in different times and places: interaction between humans and the environment; development and interaction of cultures; state building, expansion, and conflict; creation, expansion, and interaction of economic systems; and development and transformation of social structures. **To achieve AP credit, students will be required to take the AP World History test in May at a cost of \$96. The culminating act is the AP exam. Students who enroll in AP are expected to participate in this exam, and college credits can be earned pending a successful outcome of the AP exam.**

United States History and Government

Prerequisite: Global History and Geography 2

Grade: 11

Unit: 1 credit

United States History and Government is a one-year course that students take in the 11th grade. Students will focus on the five social studies standards integrated throughout the study of our nation's history. Students will develop an understanding of American geography, the Constitutional foundations for our government and legal system, and the history of the United States from its beginning to the present day. Students will develop essential social science skills that include finding, using, and presenting information, problem solving, and effective communication orally, visually, and in writing. Students are required to take the US History and Government Regents exam at the completion of this course.

Advance Placement (AP) United States History

Prerequisites: Global History 9 and 10 with 85% average
English 9 & 10 with 85 % average
Summer Reading Assignment (Read three books and write three writing assignments).

Grade 11
Unit: 1 credit

AP United States History is an elective course for Juniors combining the Regents U.S. History and Government requirements with college level assignments. It is a survey course in U.S. History from the arrival of the first Native Americans to the continent to the present. The course requires summer reading and writing projects in preparation for the school year. This course is taught as a college-level course and recommended for students with a strong interest in history and those willing to invest a significant amount of time and effort beyond the classroom. **To achieve AP credit, students will be required to take the AP United States History test in May at a cost of \$96. The culminating act is the AP exam. Students who enroll in AP are expected to participate in this exam, and college credits can be earned pending a successful outcome of the AP exam.**

Economics

Prerequisite: Senior Standing

Grade: 12
Unit: ½ credit

This course is designed as a general overview of Economics. This course will include a focus on personal finance and a broad overview of microeconomics, macroeconomics, money, labor, business organizations and the government's role in the economy.

Introduction to Government

Prerequisite: Senior Standing

Grade: 12
Unit: ½ credit

This course provides an overview of the American system of government. The two major focuses of the course are the U.S. Constitution especially rights guaranteed in the Bill of Rights and an individual's role and participation in government. Other topics include political beliefs, government institutions, public policy and civil liberties.

Advanced Placement (AP) Government

Prerequisite: United States History and Government

Grade: 12
Unit: 1 credit

AP United States Government and Politics is a college level course that gives students an analytical study of government and politics. This course includes a general study of the Constitutional Underpinnings of American Government, Political Beliefs, Interest Groups, Media, Government Institutions, Public Policy, and Civil Liberties and Rights. Additionally a study of economic forces will be integrated into the course. **To achieve AP credit, students will be required to take the AP United States Government test in May at a cost of \$96. The culminating act is the AP Exam. Students who enroll in AP are expected to participate in this exam, and college credits can be earned pending a successful outcome of the AP exam.**

Psychology

Prerequisite: None

Grade: 10-12

Unit: ½ credit

3 college credits possible*

General psychology introduces the scientific study of human and animal behavior. Topics include basic methodology, neuroscience, behavior, motivation, emotion, learning, memory, human development, personality, psychological disorders and therapy.

This course is designed to give students an overview of what psychological science has discovered about human behavior and mental processes over the past century. An evolutionary, functional perspective will be applied across the many fields of psychology. Students will gain an understanding of the psychological phenomena that occur in daily life as well as the practical applications of psychological knowledge.

****Students are able to earn college credit if they register for this course with Genesee Community College (PSY101) at current ACE GCC tuition rate of approximately \$195/ 3 credit hours.***

Sociology

Prerequisite: None

Grade: 10-12

Unit: ½ credit

Sociology is an elective class focused on the behavior of people in groups. Topics included in the curriculum are socialization, institutions, social interactions, social change, collective behavior and competition in society. Activities include but are not limited to research, readings, presentations, analysis of society, group activities and simulations as well as standard testing.

Current Events

Prerequisite: None

Grade: 9-12

Unit: ½ credit

This course is an exploration and analysis of local, state, national and international events. Students are exposed to a variety of media, expected to read periodicals, and watch current news programs. Active and regular participation in class discussion and debates are some of the core requirements for successfully completing this class.

Personal Finance

Prerequisite: None

Grade 10-12

Unit: ½ credit

Effective money management is a disciplined behavior. Students will start on a path toward being in control of their financial futures by developing skills and strategies that promote financial responsibility. This course will teach students to identify and prioritize their personal money management goals, develop personal spending and savings plans, comprehend how to invest more money, identify banking services offered, understand the cost of using credit, and how to protect their assets.

Global History through Film

Prerequisite: Global History and Geography 1

Grade: 10-12

Unit: ½ credit

This is a half year course which covers multiple issues from Global History, including but not limited to, the Crusades, World War I, World War II, The Holocaust, The Iranian Revolution, and Apartheid in South Africa. As they view films on these topics, students will learn about the historical circumstances as well as the effects of these historical turning points. Throughout the semester, students will also do research to discover the historical accuracy of the films being viewed. Students must get a permission slip signed by their parents or legal guardians for the entire film list.

US History through Film

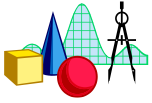
Prerequisite: Global History and Geography 1

Grade: 10-12

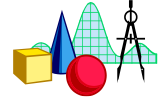
Unit: ½ credit

This is a half year course which covers multiple issues from United States History, including but not limited to the French and Indian War, The American Revolution, Slavery, The Great Depression, World War II, and the Cold War. As they view films on these topics, students will learn about the historical circumstances as well as the effects of these historical turning points. Throughout the semester, students will also do research to discover the historical accuracy of the films being viewed. Students must get a permission slip signed by their parents or legal guardians for the entire film list.

MATHEMATICS



Students will understand mathematics and become mathematically confident by communicating and reasoning mathematically...



Algebra A & B

Prerequisite: Teacher Recommendation

A score of 1 or 2 on the 8th grade NYS Math test

Grade: 9-10

Unit: 2 credits

Algebra A & B is a 2-year algebra course with a review of basic concepts and aligns to New York State Standards. It follows the Algebra I curriculum and standards at a modified pace. The culmination of this 2-year course includes completion of the New York State Common Core Algebra Regents exam.

Algebra I

Prerequisite: None

Grade: 9-10

Unit: 1 credit

Students study the first year of a three-year sequence aligned with the New York State learning standards. The intent of these standards is to provide a variety of ways for students to acquire and demonstrate mathematical reasoning ability with solving problems. The major concepts of this course focus on linear, exponential, and quadratic functions with algebraic and graphing components. Use of a graphing calculator is necessary as it is infused into the daily instruction as a problem solving, calculation, and investigation tool. The culmination of this course includes completion of the New York State Common Core Algebra Regents exam.

- ***Accelerated Algebra I***

Prerequisite: Teacher recommendation and Student Application Required

Grade: 8

Unit: 1 credit

Eligible students can take Algebra I in 8th grade. The acceleration process starts in the spring of 7th grade and is based on Teacher Recommendation and an application process.

Foundations of Geometry

Prerequisite: Pass Algebra I course and exam

Grade 9-11

Unit: 1 credit

Students study a second year of Mathematics which includes geometric and trigonometric relationships, informal proof, coordinate geometry, transformational geometry, circle geometry, and constructions. Further exploration of concepts supported by the use of the graphing calculator is integrated into the course. Students who pass this course fulfill their second credit in mathematics that is needed in order to obtain a Regents diploma.

Geometry

Prerequisite: Pass Algebra I course and exam

Grade 9-10

Unit: 1 credit

Students study the second year of a three-year sequence aligned with the New York State Common Core Curriculum and the Learning Standards. The intent of these standards is to provide a variety of ways for students to acquire and demonstrate mathematical reasoning ability when problem solving. Topics of study include geometric and trigonometric relationships, informal and formal proof, coordinate geometry,

transformational geometry, circle geometry, and construction. Further exploration of concepts supported by the use of the graphing calculator is integrated into this course. This course ends with students taking the Geometry Regents exam in June.

Math III

Prerequisite: Two years of High School Math

Grade 11-12
Unit: 1 credit

Students study a third year of Mathematics, which includes regression analysis, quadratic equations, imaginary and complex numbers, and statistics with an emphasis on “real-life” application. This course incorporates the use of graphing calculators as an instructional tool. Students who pass this course fulfill their third credit in mathematics that is needed in order to obtain a Regents Diploma.

Students who complete this course and pass the Algebra I and Geometry Common Core exams may enroll in Algebra II to pursue a Regents Diploma with Advanced Designation or College Algebra to earn college credits.

Algebra II

Prerequisite: Algebra I and Geometry courses (75% or better on both Regents exams) Grade: 11-12
Unit: 1 credit

Students study the third year of a three-year sequence that is aligned with the New York State Core Curriculum and the Learning Standards. The intent of these standards is to provide a variety of ways for students to acquire and demonstrate mathematical reasoning ability when problem solving. Topics of study include imaginary and complex numbers, quadratic, exponential, and logarithmic functions, trigonometry, regression analysis, and normal distribution. The graphing calculator is a mandatory tool that students must master in order to be successful in this course. This course ends with students taking the Algebra II Regents exam in June. Successful completion of this exam along with the Algebra I and Geometry Regents will satisfy the math requirements for a Regents Diploma with Advanced Designation.

College Algebra III (Elective)

Prerequisite: Three years of high school math with teacher recommendation

Grade: 11-12
Unit: 1 credit

3 college credits possible*

Students study advanced topics of algebra and the basics of trigonometry. Topics include absolute value equations and inequalities, linear and quadratic systems, rational exponents, radical expressions and complex numbers, quadratic, exponential and logarithmic functions and applications, graphs of functions and their inverses, conic sections, trig functions, and the unit circle. ****Students are able to earn college credit if they register for this course with Genesee Community College (MAT136) at current ACE GCC tuition rate of approximately \$195/ 3 credit hours.***

Pre-Calculus & Statistics I

Prerequisite: Pass Algebra 2 and Trigonometry with 85% or more
And at least 75% on Algebra II Regents exam

Grade 11-12
Unit: 1 credit

7 college credits possible*

This course is required for accelerated math students. However, other students may take Pre-Calculus & Statistics (provided they have at least an 85% final average in previous math courses and at least an 85% on all Regents exams in these courses). The Honors courses in Mathematics are aligned with the New York State Core Curriculum and Learning Standards. Curriculum and Learning Standards will be covered with an in-

depth and enriched approach. Honors courses will require students to be self-motivated and willing to assume responsibility for their learning and are intended to challenge math students who have been successful in previous math courses. This is a one-year course and students will not be allowed to withdraw from the course mid-year. **Students are able to earn college credit if they register for this course with Genesee Community College (MAT 140 and MAT 129) at an approximate cost of \$420/ 7 credit hours.*

Pre-Calculus

Prerequisite: Algebra 2 and Trigonometry

Grade 11-12

Unit: 1 credit/with tuition, 4 college credits possible*

Students study a variety of introductory college math topics such as: linear, quadratic, exponential and logarithmic functions, analytic and coordinate geometry, complex fractions, and rational integral functions of the nth degree. Solutions to equations of higher degree and relationships between roots and coefficients are treated in detail with practice in synthetic division and the remainder and factor theorems. More advanced work in logarithms and exponents are studied, including base “e” and the natural logarithmic function. In the spring students enrolled in this course will spend considerable time studying the basic concepts of calculus, preparing students to study high school or college calculus. **Students are able to earn college credit if they register for this course with Genesee Community College at an approximate cost of \$260/ 4 credit hours.*

Advanced Placement (AP) Calculus

Prerequisite: Pre-Calculus

Grade 12

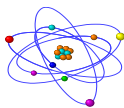
Accelerated Math for 4 years overall average and exams 85%

Unit: 1 credit

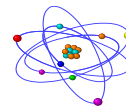
Teacher Recommendation

4 college credits possible*

This course is ONLY available for those students who were accelerated in mathematics for four years and have successfully completed all of the preparatory courses with an overall math average above an 85% and/or teacher recommendation. This course is a rigorous college level math course taught in a high school setting. Students will develop the understanding of the concepts of calculus, together with its methods of applications. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally. **To achieve AP credit, students will be required to take the AP Calculus test in May at a cost of \$96. College credits can be earned pending a successful outcome of the AP exam.** **Students can either earn AP course credit OR GCC credit if they register for this course with Genesee Community College (MAT 141) at an approximate cost of \$260 / 4 credit hours. Students must verify which credit they will pursue with their teacher by December 1st.*



SCIENCE



Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science....

The Living Environment

Prerequisite: None

Grade: 8-10
Unit: 1 credit

This course should be the first science course in the science Regents sequence. Based on the New York State Standards, students use scientific inquiry and design to generate data, and apply scientific concepts, principles and theories that are common to Math, Science and Technology. Students study the nature of living things. Students learn to apply knowledge and thinking skills in class to address real life problems and make informed decisions. Topics include reproduction and development, evolution, ecology, genetics, and physiology. Students must successfully complete the required 1200 minutes of laboratory experience with satisfactory reports on file for Regent's credit. Students are required to take the Living Environment Regents examination at the completion of this course. This course meets a Living Environment science graduation requirement and a minimum grade of an 85% is preferred for A.P. Biology.

- ***Accelerated Living Environment***

Prerequisite: Teacher recommendation and Student Application Required

Grade: 8
Unit: 1 credit

Eligible students can take Living Environment in 8th grade. The acceleration process starts in the spring of 7th grade and is based on Teacher Recommendation and an application process.

Physical Setting: Earth Science

Prerequisite: None

Grade: 9-12
Unit: 1 credit

This course should be the second science course in the science Regents sequence. Earth Science involves the investigation of processes related to the solar system, weather systems, climates, geological formations and geologic history based on observation and measurements. Students must successfully complete 1200 minutes of laboratory experience with satisfactory reports on file for Regent's credit. Technology, such as computers, is used in the study of topographic maps, meteorology, coordinate systems and measurements. Students are required to take the Earth Science Regents examination. This course meets a Physical Setting science graduation requirement.

Physical Setting: Chemistry

Prerequisite: Living Environment and Geometry

Grade: 10-12
Unit: 1 credit

Physical Setting: This course should be the third science course in the science Regents sequence. Chemistry is a laboratory-based Regents course that studies matter and its interactions with energy. Students must successfully complete 1200 minutes of laboratory experience with satisfactory reports on file for Regents credit. ***It is highly recommended that students have successfully completed Geometry.*** Units covered in this course include atomic concepts, the periodic table, moles/stoichiometry, chemical bonding, and physical behavior of matter, kinetics/equilibrium, organic chemistry, oxidation-reduction, nuclear chemistry, and acid-base chemistry. Students are required to take the Chemistry Regents examination at the conclusion of this course. This course meets a Physical Setting science graduation requirement and is a prerequisite for AP Biology and the Health Academy.

Physical Setting: Physics

Prerequisite: Living Environment and Geometry

Grade: 11-12

Unit: 1 credit

This course should be the fourth science course in the science Regents sequence. This course is a study of motion, forces, work, forms of energy, mechanics, waves (sound and light), atomic structure, particle-wave duality, conservation laws, electricity, magnetism, and modern physics with an emphasis during the course on problem solving. Laboratory experiences support classroom study and include collecting, organizing, and analyzing data. Students must successfully complete 1200 minutes of laboratory experience with satisfactory reports on file for Regent's credit. Students are required to take the Physics Regents examination at the end of this course. ***It is highly recommended that students have completed or are concurrently enrolled in Trigonometry. Strong math skills and knowledge of Algebra are necessary for success in this course.*** This course meets a Physical Setting science graduation requirement.

Advanced Placement (AP) Biology

Prerequisite: Living Environment and Regents Chemistry
Summer Work Required

Grade: 11-12

Unit: 1 credit

Recommended: Earth Science

Enrollment in AP Biology is open to students that have completed and earned a minimum of 85% in Living Environment and Chemistry. It is recommended that students complete Earth Science, but it is not required. AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore topics like evolution, energetics, information storage and transfer, and system interactions. This course requires that 25% of the instructional time will be spent in hands-on laboratory activities. Well-written lab reports are required for each laboratory with a discussion on outcomes as a class. This course is taught at a college-level and is recommended for students with a strong interest in science, particularly in the life science beyond high school. It is expected that students invest a significant amount of time beyond the classroom. **To achieve AP credit, students will be required to take the AP Biology test in May at a cost of \$96. The culminating act is the AP exam. Students who enroll in AP are expected to participate in this exam, and college credits can be earned pending a successful outcome of the AP exam.**

AP Chemistry

Prerequisite: Physical Setting Chemistry
Summer Work Required

Grade: 11-12

Unit: 1 credit

8 college credits possible*

The AP Chemistry course provides students with a college-level foundation to support future advanced coursework in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore content such as atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. **To achieve AP credit, students will be required to take the AP Chemistry test. In May at a cost of \$96. The culminating act is the AP exam. Students who enroll in AP are expected to participate in this exam, and college credits can be earned pending a successful outcome of the AP exam. . *Students are able to earn college credit if they register for this course with Genesee Community College at an approximate cost of \$260/ 4 credit hours. They can earn Gen Chem 1 (GCC Course CHE 101) and Gen Chem 2 (GCC Course CHE102) credit for a total of 8 credit hours.**

Environmental Science

Prerequisite: The Living Environment

Grade: 11-12

Unit: 1 credit

The first semester of this course will cover the Envirothon topics of forestry (tree species identification, measurement and value of timber, forest structure and Silviculture), soils (order, profile, texture, erosion, and sedimentation), and current environmental issues.

The second semester of this course will cover the Envirothon topics of wildlife species identification by skulls and tracks, habitats, invasive species, endangered species, food webs, invertebrates, vertebrates, ecosystems, aquatics (watersheds, wetlands, and water quality), energy sources and current environmental issues.

This course meets a General science graduation requirement.

Introduction to Agri-Science 1 and 2

Prerequisite: Can be taken concurrently with Living Environment

Grade: 9 – 12

Unit: ½ credit per semester

Agriculture careers require a wide array of skills from food tasting to construction. In this course, you will develop basic skills to lead you to possible careers in agricultural science. In class, you will have hands on experiences in researching the quality of water in your school and community. Planning, designing and constructing a habitat for local wildlife. Determining how to safely store and preserve food. Determining composition of local soils. Students will also have opportunities in leadership development by joining the Byron-Bergen FFA chapter.

Science Electives Anticipated Schedule

NOTE: Some science courses will be offered in a two-year cycle – A / B

Some science courses are offered on a three-year cycle - *

Cycle A

Agricultural Business Foundations

Cycle B

Plant Science

Principles of Animal Science 1&2

Every 3 years*

Agricultural Power and Technology 1&2

2022-2023 (A*)	2023-2024 (B)	2024-2025 (A)	2025-2026 (B*)
Agricultural Power and Tech 1&2 Agricultural Business Foundations	Plant Science Principles of Animal Science 1&2	Agricultural Business Foundations	Plant Science Principles of Animal Science 1&2 Agricultural Power and Tech 1&2

Principles of Animal Science 1 and 2

Prerequisite: Introduction to Agri-Science 1 and 2

Grades 10-12

Unit: ½ credit per semester

The major focus of the *Principles of Animal Science* course is to expose students to agriculture, animal science, and related career options. Students participating in the course will have experiences in various animal science concepts with exciting hands-on activities, projects, and problems. Students' experiences will involve the study of animal anatomy, physiology, behavior, nutrition, reproduction, health, selection, and marketing. For example, students will acquire skills in meeting the nutritional needs of animals while developing balanced, economical rations. Throughout the course, students will consider the perceptions and preferences of individuals within local, regional, and world markets.

Students will explore hands-on projects and activities to learn the characteristics of animal science and work on major projects and problems similar to those that animal science specialists, such as veterinarians, zoologists, livestock producers, and industry personnel, face in their respective careers. Students will also have opportunities in leadership development by joining the Byron-Bergen FFA chapter.

Plant Science

Prerequisite: Introduction to Agri-Science 1 and 2

Grades 10-12

Unit: 1 credit

Plant Science provides a foundation of plant science knowledge and skills. Students will experience various plant science concepts through exciting "hands-on" activities, projects, and problems. Student experiences will include the study of plant anatomy and physiology, classification, and the fundamentals of production and harvesting. Students will learn how to apply scientific knowledge and skills to use plants effectively for agronomic, forestry, and horticultural industries. Students will discover the value of plant production and its impact on the individual, the local, and the global economy.

Agricultural Power and Technology I and II

Prerequisite: Introduction to Agri-Science 1 and 2

Grades 10-12

Unit: ½ credit per semester

Agricultural Power and Technology exposes students to mechanics, power, technology, and career options in the world of agriculture. Students participating in the APT course will have experiences in various mechanical and engineering concepts with exciting hands-on activities, projects, and problems. Student's experiences will involve the study of energy, tool operation and safety, material properties, machine operation, and structural components. Students will acquire the basic skills to operate, repair, engineer, and design agricultural tools and equipment. Throughout the course, students will apply the engineering principles to the construction of machines and structures.

Agricultural Business Foundations

Prerequisite: Introduction to Agri-Science 1 and 2

Grades 10-12

Unit: ½ credit

Agricultural Business Foundations (ABF) introduces students to business management in agriculture. Throughout the course are practical and engaging activities, projects, and problems to develop and improve business and employability skills. Additionally, students investigate and develop viable business plans in order to solve local problems. The business plan ideas are communicated to student peers and members of the professional community.

WORLD LANGUAGES

Students will be able to use a language other than English for communication...

One unit of credit is needed for graduation. Three units of credit in a language other than English are required to earn an Advanced Designation Regents diploma. Students may substitute for this requirement by pursuing a five-unit sequence in career and technical education (business, technology or Occupational Studies at BOCES) or the fine arts.

Spanish 1

Prerequisite: None

Grade: 9-12

Unit: 1 credit

This course is designed to meet the one year language requirement in high school. Students eligible for this course may not have received credit in a middle school language class or would like to learn a new language. This course introduces the student to the Spanish language and to the culture of the Hispanic world. Upon completing this course, students will be able to carry on basic conversation in Spanish. Written, as well as oral comprehension is emphasized.

***Students who did not pass the NYS Proficiency requirements in grade 8 must take and pass this course in order to graduate.**

Spanish 2

Prerequisite: Spanish 1 / Spanish 8

Grade: 9-12

Unit: 1 credit

Students learn and practice the grammatical concepts of the language and other fundamentals such as writing brief descriptions of simple situations and events, participating in short conversations, reading ads and announcements, and using cues and strategies to understand dialogues. Through art, music, and history, students continue their study of the basic geographical and cultural aspects of the countries speaking the language. The structure of grammar as it relates to writing and speaking conventions is also an integral part of this course. Throughout the year, weekly quizzes and tests are given.

Spanish 3

Prerequisite: Spanish 2

Grade: 10-12

Unit: 1 credit

In this course, more emphasis is placed on oral and written work. This course also involves a great deal of reading and vocabulary expansion. Several short oral presentations are required throughout the year and weekly quizzes and tests are given. It is expected that the students have a command of the language and that they be able to comfortably communicate both orally and in writing. The Comprehensive Spanish Regional examination is given in June. Students must pass the class and the exam in order to receive credit necessary for the Advanced Regent Diploma.

Spanish 4

Prerequisite: Spanish 3 and successfully passing the Spanish Regional Exam

Grade: 11-12

Students must have had an 85% or better in Spanish 3 in order to take this course

Unit: 1 credit

3 college credits possible*

This course concentrates on skills of reading, writing, and speaking in Spanish. Conversations and discussions are conducted mostly in the target language. The Hispanic culture is researched in depth and discussed in class. Throughout the year, students are required to do research on the culture, write papers, and do oral/visual presentations in Spanish. ***Students are able to earn college credit if they register for this course with Genesee Community College at current ACE GCC tuition rate of approximately \$195/ 3 credit hours.**

OCCUPATIONAL EDUCATION & TECHNOLOGY

Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems to satisfy human and environmental needs...

Byron-Bergen HS Technology Education

- DDP is a foundation course for all Technology courses with the exception of Manufacturing Systems, Transportation Systems, Communication Systems, and Photography.
- Recommended - 9th graders should take DDP simultaneously with Manufacturing Systems.
- Required – Students complete Manufacturing Systems 1 & 2 prior to taking Advanced Product Design.

Technology Course Offerings by Grade Level

<u>Grades 9-12</u>	<u>Grades 10-12</u>	<u>Grades 11-12</u>
DDP (grade 9 or 10 Recommended) Manufacturing Systems I, II Home Maintenance & Repair Construction Systems	Advanced Product Design Transportation Systems Communication Systems Photography Principles of Engineering CAD/Advanced CAD Digital Electronics/Robotics	Architectural Drawing Construction Drawing

Technology Electives Anticipated Schedule

NOTE: Some technology courses will be offered in a two-year cycle – A / B
All other courses are offered every year

Cycle A

Home Maintenance & Repair (Fall 2024)
Construction Systems (Spring)
Principles of Engineering (Full Year)

Cycle B

Advanced Product Design (Fall)
Transportation Systems (Spring)
Digital Electronics/Robotics (Full Year)

2022-2023 (A)	2023-2024 (B)	2024-2025 (A)	2025-2026 (B)
Home Maintenance & Repair (F) Construction Systems (S) Principles of Engineering (full yr)	Advanced Product Design (F) Transportation Systems (S) Digital Electronics/Robotics	Home Maintenance & Repair (F) Construction Systems (S) Principles of Engineering (full yr)	Advanced Product Design (F) Transportation Systems (S) Digital Electronics/Robotics

Offered every year:

Drawing & Design for Production (DDP)
Computer Aided Design (CAD) and Advanced Computer Aided Design
Architectural Drawing
Construction Drawing
Manufacturing Systems 1 & 2
Communication Systems (Fall)
Photography (Spring)

Drawing and Design for Production (DDP)

Prerequisite: Freshman Standing

Grade: 9-12

Unit: 1 credit

This course emphasizes creative problem-solving, designing, and technical drawing. The course reflects the approach used in business and industry to develop new products. Students develop solutions to various design or product problems, and proposed solutions are researched, sketched, refined, and rendered as technical drawings. Basic elements of design and the six basic areas of technical drawing are covered.

Computer Aided Design (CAD)

Prerequisite: DDP

Grade: 10-12

Unit: ½ credit

3 college credits possible*

Students create 2-D engineering drawings using basic CAD concepts and industrial level software (AutoCAD). Focuses on the principles and practices common to all CAD systems used in drafting. Develops skills with operating systems, computer terminology, and functions of hardware and peripheral components within a workstation environment and using proper drafting standards. Requires drawings using different techniques, drawing constructions and dimensioning. **Students are able to earn college credit if they register for this course with Genesee Community College at current ACE GCC tuition rate of approximately \$195/ 3 credit hours.*

Advanced Computer Aided Design (Advanced CAD)

Prerequisite: CAD

Grade: 10-12

Unit: ½ credit

Students create 3-D engineering drawings using basic CAD concepts and industrial level solid modeling software (Inventor). Focuses on the principles and practices common to all CAD systems used in drafting. Develops skills with operating systems, computer terminology, and functions of hardware and peripheral components within a workstation environment and using proper drafting standards. Requires drawings using different techniques, drawing constructions and dimensioning.

Construction Drawing

Prerequisite: DDP (recommended prerequisite: CAD)

Grade: 11-12

Unit: ½ credit

Students design and draw the plans for a 2000 square foot home, using them to build a model of the home. This design includes choosing the proper building materials to meet code. Presentation, foundation, floor, elevation, framing, electrical, and plumbing drawings are developed. The model is a scaled representation of the designed home.

Architectural Drawing

Prerequisite: DDP (recommended prerequisite: CAD)

Grade: 11-12

Unit: ½ credit

Students gain understanding of architectural drawing by actually creating most of the drawings constituting a house plan. They will also study the history of architecture and careers related to architectural drawing.

Communication Systems

Prerequisite: None

Grade: 10-12
Unit: ½ credit

Students are introduced to various methods of communication. The three main concepts are graphic, audio, and audio-visual communication techniques. Students learn how messages are presented and targeted to specific groups. Students will complete projects using Photoshop, Word, Moviemaker, digital cameras, and screen printing equipment for t-shirts.

Construction Systems

Prerequisite: None

Grade: 9-12
Unit: ½ credit

Students learn about residential, commercial and public construction processes. The students spend much of their time doing actual construction activities. Activities include foundation work, structural framing (floor, wall and roof), interior and exterior finishing, and basic electrical and plumbing of residential structures. Additional information about related careers in this area is taught.

Manufacturing Systems 1

Prerequisite: None

Grade: 9-12
Unit: ½ credit

3 college credits possible*

Students learn selection, cutting, bending, joining, and finishing of wood, metal, ceramic and plastic materials used to create manufactured products. Students gain a basic understanding of the operation of a manufacturing facility by imitating the manufacture of a product from beginning to end. Additional information is taught about related careers. ****Students are able to earn college credit if they register for this course with Genesee Community College at current ACE GCC tuition rate of approximately \$195/ 3 credit hours.***

Manufacturing Systems 2

Prerequisite: Manufacturing Systems 1

Grade: 9-12
Unit: ½ credit

This is an applied technology course. Students will be exposed to advanced techniques used in the industrial worlds while basing the course around actual industry practices. The outcome will be a variety of projects that students will manufacture in class combining the basic skills obtained in Manufacturing Systems I and the advanced skills learned throughout this course.

Transportation Systems

Prerequisite: None

Grade 10-12
Unit: ½ credit

This is an applied technology course. Students are exposed to the methods used to move people and goods by land, sea, and air transportation. The learning outcome will be the application of knowledge to engage in a variety of hands-on projects and career exploration pertaining to the transportation industry.

Advanced Product Design

Prerequisite: Required Manufacturing Systems 1 & 2

Grade 10-12
Unit: ½ credit

This is an applied technology course. Students will develop solutions to real-life problems. Students will design, fabricate, and test product ideas to prove out their ideas and compete with other students challenged with solving the same/similar problems. This course will prepare students for various annual competitions including GCC Tech Wars.

Home Maintenance & Repair

Prerequisite: Manufacturing 1 & 2 preferred but not required

Grade: 9-12
Unit: ½ credit

This hands-on class is designed to give students a working knowledge of how to make household repairs through the introduction of hand and power tools and techniques needed for basic home maintenance and repair. The fundamentals of interior and exterior home maintenance including electricity, plumbing, carpentry, masonry and appliance trouble-shooting and repairs will be explored. Also, students will review fundamental methods in installing and repairing common household items such as flooring, furniture, cabinets, and basic wall framing. The understanding of blueprints and its importance relating to trouble-shooting problems buried within a wall structure will also be covered.

Digital Electronics/Robotics

Prerequisite: DDP

Grade: 10-12
Unit: 1 credit

Topics taught in this course are logic gates and combinational logic circuits involving digital signals, binary and hexadecimal number systems, gate symbols and truth tables necessary for an understanding of digital systems found in electronic equipment. The second part of the course teaches sequential logic circuits and logic system applications involving memories, counting and timing operations, and their applications.

Principles of Engineering

Prerequisite: (recommended: DDP)

Grade: 10-12
Unit: 1 credit

In this course an integrative hands-on laboratory based set of case studies conveys the concepts, principles, skills, techniques, and attitudes found in different engineering fields. The case studies involve auto safety, ergonomics of a communication system, machine automation, and structures. Each case study involves modeling, system, optimization, technology/society interaction, design and ethics. Students use technology, math, and sciences to develop or enhance solutions to current or future engineering problems. Major emphasis is on problem solving and the presentation of solutions.

Photography

Prerequisite: Communication Systems or Studio in Art

Grade: 10-12
Unit: ½ credit

In this course, the students learn about photographic equipment and its operation, basic photography terms and techniques, and how to take good photographs. Students will also explore digital imaging and editing. The history of and careers involving photography will also be studied. This course can lead into Computer Graphic Arts Design 1.



VISUAL ARTS



In order to graduate, students are required to earn at least one unit of credit in the fine arts of either music and/or art. The major goal of this requirement is for students to acquire the knowledge, understanding, and appreciation of the artistic, cultural, and intellectual accomplishments of civilization and to develop skills to express personal artistic talents. Students may choose a performance course to meet the one-unit requirement for graduation.

Students will respond critically to a variety of works of in the arts, connecting the individual work to other works and to other aspects of human endeavor and thought... “Every child is an artist; the problem is how to remain an artist when he grows up.” Pablo Picasso

The Visual Arts program presents opportunities for students to broaden their interests in the arts as they acquire knowledge, understanding, and appreciation of the artistic, cultural, and intellectual accomplishments of civilization, and develop skills to express personal artistic talents. Students who show a strong interest or ability in the visual arts should begin preparing a portfolio and pursue an art major sequence.

Art Course Offerings by Grade Level

Grades 9-12 Studio in Art	Grades 10-12 Drawing and Painting 1 Pottery 3-D Design & Sculpture Photography	Grades 11-12 Drawing and Painting 2 Advanced Studio in Art GCC Art 110 Eclectic Art
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Art Electives Anticipated Schedule

NOTE: Some art courses will be offered in a two-year cycle – A / B
All other courses are offered every year

Cycle A

Eclectic Art

Cycle B

3-D Design & Sculpture

2022-2023 (A)	2023-2024 (B)	2024-2025 (A)	2025-2026 (B)
Eclectic Art	3-D Design & Sculpture	Eclectic Art	3-D Design & Sculpture

<i>Offered every year:</i>
Studio in Art
Drawing and Painting 1
Drawing and Painting 2
Advanced Studio in Art <i>*(if enough interest)</i>
Pottery
GCC Art 110
Photography

Studio in Art

Prerequisite: None

Grade: 9-12

Unit: 1 credit

Studio In Art is a foundation course for students who are planning to be art majors or are taking an art course for a fine art graduation credit. *Throughout the course, the focus will be on WHY humans have created art throughout time with a major focus on art history and diverse cultures.* This course is also centered on the exploration of a variety of media and introduces students to hands-on art techniques in order to develop successful works of art. A sketchbook is required.

Drawing and Painting 1

Prerequisite: Studio in Art

Grade: 10

Unit: 1 credit

This full year course builds on learning from Studio in Art and is designed to have an *intense focus on materials and advanced technique*. Students will become more skilled in the use of graphite drawing pencils, colored pencils, pastels, pen and ink, watercolors, and acrylic paints. A sketchbook is required.

Drawing and Painting 2

Prerequisite: Studio in Art and Drawing and Painting 1

Grade: 11-12

Unit: 1 credit

Students who successfully completed Drawing & Painting 1 use this course to continue the art sequence. *The main focus of this course is guiding the students to use their prior knowledge of materials to begin to develop their own personal artistic style.* Advanced techniques using drawing and painting supplies are explored and students will continue to learn about themes and artists in the art world. A sketchbook is required.

Advanced Studio in Art

Prerequisite: Three previous Art credits

Grade: 11-12

Unit: 1 credit

This full-year course is similar to the Studio in Art course except the information and projects are more in depth and challenging. This intensive course continues an exploration of a variety of methods and materials, both 2-dimensional and 3-dimensional. Art appreciation and art history are a major focus throughout the course.

Pottery

Prerequisite: Studio in Art

Grade: 10-12

Unit: 1 credit

This course will introduce students to the pottery studio. Vocabulary for clay and knowledge of clay and ceramics in art history will be incorporated. Students will explore three basic forms of hand building: pinch, coil, and slab. Students will also learn about a variety of glazing and firing techniques. Once students have learned basic building techniques, they will explore more advanced forms of hand building such as lidded vessels and sculptural forms. All students will learn how to use the pottery wheel and throw vessels with clay.

GCC Art 110

Prerequisite: Studio in Art, Drawing and Painting 1, and at least 1 other art elective
And teacher approval

Grade: 11-12

Unit: 1 credit

3 college credits possible*

GCC Drawing 101 is designed for serious students interested in majoring in fine art in college and earning college credit. This course will focus on various drawing techniques, artistic style and personal choice, analyzing artwork through critique discussion, and the development of a college admissions portfolio. There will also be a strong emphasis on direct observational drawing. Students are required to have a sketchbook, and hardbound portfolio. ****Students are able to earn college credit if they register for this course with Genesee Community College at current ACE GCC tuition rate of approximately \$195/ 3 credit hours.***

3-D Design & Sculpture

Prerequisite: Studio in Art
Offered every other year (next offered 2023-2024)

Grade: 10-12

Unit: 1 credit

We will explore the basic principles of art that govern 3 dimensional work and how they can be manipulated to produce aesthetically pleasing and interesting sculptural forms. Offered every other year with Eclectic Art.

Eclectic Art

Prerequisite: Studio in Art and 1 other art elective or teacher permission
Offered every other year (offered 2022-2023)

Grade: 11-12

Unit: 1 credit

This full year course is designed to give students an opportunity to explore a wide variety of arts experiences, medias, and concepts not typically available in our other art classes. Students can expect to try non-traditional art forms like paper making, bookbinding, textile arts, up-cycling, multi-cultural arts & anthropology, mixed media arts and much more. A variety of guest artist and field trips exploring local arts experiences may be included in this course.

Photography

Prerequisite: Communication Systems for Technology Majors
Prerequisite: Studio in Art for Art Majors

Grade: 10-12

Unit: ½ credit

In this course, the students learn about photographic equipment and its operation, basic photography terms and techniques, and how to take good photographs. Students will also explore digital imaging and editing. The history of and careers involving photography will also be studied. This course can lead into Computer Graphic Arts Design 1.



Students will engage in processes that constitute creation and performance in the arts and participate in various roles...

These classes not only encourage the individual growth of a student, but prepare students who may be going to college to major in the field of music.

Music Electives Anticipated Schedule

NOTE: Some music courses will be offered in a three-year cycle – A / B / C

All other courses are offered every year

Cycle A

Music Appreciation

Cycle B

Musical Theater

Cycle C

The Voice

History of Pop Music

2022-2023 (B)	2023-2024 (C)	2024-2025 (A)	2025-2026 (B)
Musical Theater	The Voice (Fall) History of Pop Music (Spring)	Music Appreciation	Musical Theater

Offered every year:

Sr. High School Band

Senior High Chorale

Singing Silhouettes

Music Theory and Composition

Singing Silhouettes

Prerequisite: January Audition with Teacher

Grade: 9-12

Unit: 1 credit/year

The Singing Silhouettes are the “Singing Ambassadors” of Byron-Bergen: a select chorus of auditioned students grades 9 – 12. This chorus sings a wide variety of challenging music in many genres, and much of the literature is a cappella. Students who wish to audition for Singing Silhouettes will have opportunity in grades 8 - 11 to audition for the following years’ Silhouettes in January.

Music Theory & Composition

Prerequisite: None

Grade: 10-12

Required for Music Sequence for Regents Diploma with Advanced Des. Unit: 1 credit

This course provides knowledge of the mechanics of music and composition, and provides students with the skills to obtain greater ability at reading, writing, and listening to music. This class is extremely active, and focuses on the four main elements of music: Rhythm, Melody, Harmony, and Aesthetics/Expression.

Musical experience and basic music literacy skills are essential to achieve course success, and this course is CRITICAL for any students wishing to continue in a career in music.

Senior High Chorale

Prerequisite: None

Grade: 9-12
Unit: 1 credit

The Senior High Chorale is a vocal ensemble (chorus) featuring male and female vocalists (soprano, alto, tenor, bass). No experience or music reading skills are needed initially. Students will learn vocal technique, especially those skills that are unique to singing in a chorus. In addition, students will learn breathing, relaxation, and performance techniques. Most importantly, students will be SINGING everything from classical music to jazz/pop music, and will have the opportunity to learn a cappella (unaccompanied) singing as well. If you love to sing, then this is the course for you...all are welcome!

Senior High School Band

Prerequisite: Play an instrument

Grade: 9-12
Unit: 1 credit/year

Sr. High School Band is open to all students in grades 9 – 12. It offers them the opportunity to experience various styles of music and encourages lifetime appreciation of music. Students participate in marching band, which teaches field show choreography as well as street marching. This unit usually occurs in the 1st and 4th quarter. Students participate in a Concert Band and Jazz Band format during the 2nd, 3rd and 4th quarter. Extracurricular opportunities are offered to interested students who may elect to participate in the pit band for the musical during the 3rd quarter. Students may select to perform solos that earn them the ability to participate in county and state ensembles.

Musical Theater

Prerequisite: None

Grade: 9-12
Unit: 1 credit

If you love Musical Theater, this is the class for you! The Musical Theater class provides an opportunity for students to understand and experience all of the elements required in making a Musical, as well as the origins of the Musical itself. Students will explore musical theater from a variety of lenses: Actor, Singer, Dancer, Stage Crew, Designer, Costumer, Make-Up Artist, and Director. Students will be engaged in active learning and “hands on” experiences as much as possible, with some written work. No experience in musical theater is required for this course!

Music Appreciation

Prerequisite: None

Grade: 9-12
Unit: 1 credit

This class explores what music actually is, and all of the elements that contribute to music. The class is divided into four main units: The Mechanics & Theory of Music, Music as Culture, Music as History, and Music as Performance. Students will engage in moving, singing, playing instruments, listening, reflecting, and responding to music in this highly active, exciting, hands-on class!

The Voice

Prerequisite: One year of Senior High Chorale or Singing Silhouettes

Grade: 10-12
Unit: ½ credit

The Voice is a class that focuses on all aspects of the singer: how the voice works, how to improve the voice in terms of flexibility, strength, intonation, breathing, range, and tone; the psychology of singing and performing, and how to sing in a variety of styles (including classical, gospel/R & B, jazz, Broadway, pop, and rock). Students will learn how to take of their voices as well. Each student will learn how to prepare a song of their choice, how to choose the best song for their voice, and how to perform in front of an audience.

History of Pop Music

Prerequisite: One year of Senior Band, Senior Chorale, or Singing Silhouettes

Grade: 10-12

Unit: ½ credit

This class takes students through the evolution of popular music, from the birth of rock n' roll to the music of today. Students will be immersed in lots of active listening activities, discussions, and reflections on the different forms of music, and will be able to identify the different styles and eras by listening. Finally, students will engage in activities that allow them to experience the performance side of popular music as well.

HEALTH/PHYSICAL EDUCATION/WELLNESS

Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health...

Health

Prerequisite: None

Grade: 10

Unit: ½ credit

The Health Education course is based on skills based/standards based curriculum. Units taught in this course are Life Skills, Mental Health, Alcohol, Tobacco and other Drug Prevention units, Infectious Diseases, including HIV/AIDS, Human Growth and Development, Family Life Education and Parenting. This course enhances student decision making skills and is an asset when dealing with day to day challenges. Health Education is a required course for half of a credit. It is recommended that students take health in the 10th grade.

HED 204 – Introduction to Healthful Living

Prerequisite: Health

Grade: 11-12

Unit: ½ credit

3 college credits possible*

This course is designed for Juniors and Seniors who have successfully completed High School Health. This is a college level health class that emphasizes reasons and strategies for assuming responsibility for maintaining a healthy lifestyle. The course focuses on lifestyle factors and their relationships to well-being, behaviors, and disease. The course also includes health and wellness, stress, drug, alcohol and tobacco use and abuse, nutrition and weight control, cardiovascular health, physical fitness, healthy relationships, sexuality, birth control, sexually transmitted diseases, safety education, communication skills for productive relationships, identifying and reporting suspected child abuse and maltreatment. Three college credit hours are available to students through Genesee Community College. **Students are able to earn college credit if they register for this course with Genesee Community College at current ACE GCC tuition rate of approximately \$195/ 3 credit hours.*

HED 205 – Responding to Emergencies

Prerequisite: Health

Grade: 11-12

Unit: ½ credit

3 college credits possible*

This course is designed for Juniors and Seniors who have successfully completed High School Health. This is a college level health course that presents emergency techniques used to maintain health, alleviate suffering and sustain human life under conditions during which professional care and/or normal health services are unavailable. Studies safety and prevention as they relate to home, school, industry, and the highway. Provides Red Cross certification in Responding to Emergencies and CPR/AED for the Professional Rescuer upon successful completion of requirements and payment of Red Cross fees. Three college credit hours are available to students through Genesee Community College. **Students are able to earn college credit if they register for this course with Genesee Community College at current ACE GCC tuition rate of approximately \$195/ 3 credit hours.*

Physical Education

Prerequisite: None

Unit: ½ credit/year

It is the goal of High School Physical Education for students to gain the necessary knowledge to make healthy choices for a lifetime of fitness, personal health and enjoyment. All students must take a Physical Education course while in high school. Two units of physical education are required for graduation. The following are units presented at varying times throughout a student’s high school career:

<i>Dance/Aesthetic Activities:</i>	<i>Team Sports:</i>	<i>Net and Wall Sports:</i>	<i>Outdoor Activities:</i>	<i>Personal Performance:</i>	<i>Target Activities:</i>	<i>Striking & Fielding Sports:</i>
Aerobics	Flag Football	Tennis	Kayaking	Strength Training	Archery	Softball
Step-Aerobics	Omnikin Ball	Badminton	Orienteering	Fitnessgram	Golf	Whiffle Ball
Tae Bo	Soccer	Pickleball	X-Country Skiing	Adventure Activities	Bocce	
Self Defense	Lacrosse	Paddle Ball	Snowshoeing	Insanity Workout	Horseshoes	
Line Dancing	Ultimate Frisbee	Volleyball	Challenge Course		Croquet	
Ballroom Dance	Basketball	Table Tennis	Recreational Games		Frisbee Golf	
Pilates	Floor Hockey					
Yoga	Speedball					
Zumba	Team Handball					

P.E. Comparable Credit Program

The goal of the Byron-Bergen Junior-Senior High School Physical Education staff is to engage students in a variety of activities that promote team and lifelong fitness options. To support this mission and to promote and reinforce physical fitness that occurs outside of the classroom, Byron-Bergen offers students an opportunity to earn physical education credit for comparable athletic participation for **up to TWO semesters total in 11th and/or 12th grade.**

Students are eligible for this program if they:

- a. participate in a comparable amount of time each semester in extra-class athletic activities
- b. demonstrate acceptable levels of physical fitness, physical skills, and knowledge of physical education activities

Criteria for Consideration:

- Currently enrolled in their 3rd (11th grade) or 4th (12th grade) year of high school
- Currently participating in a Byron-Bergen junior varsity or varsity athletic team
- Possess a 95% attendance rate
- Achieve top 25% in all five fitness categories as assessed through the Fitness-Gram
- Earns an score of 85% or higher on a departmental local examination of physical education knowledge

- In good academic standing, receiving passing grades in all courses
- Enrolled in 6.0 credits

Guidelines for Participation:

1. Students will be scheduled for a physical education class and assigned to a teacher
2. Students will complete a WEEKLY physical education journal that must be submitted and approved WEEKLY by their assigned physical education teacher
3. Students must maintain a 95% attendance rate
4. Students must remain in good academic standing and earn passing grades in all other coursework

The assigned physical education teacher will be responsible for providing a quarterly grade for each assigned student throughout the duration of the comparable credit period based on the student’s weekly logs and class assessments. Physical education is a NYSED graduation requirement, therefore if a student ends their participation in a Byron-Bergen junior varsity or varsity athletic team it is their responsibility to immediately disclose this information to their school counselor. Failure to do so may result in the student retaking the physical education class missed. Upon receipt of this information the school counselor will immediately reschedule the student for participation in their regular physical education class.

OCCUPATIONAL EDUCATION PROGRAMS AT BOCES

The Occupational Education programs established by the Board of Cooperative Educational Services are designed to be an extension of each component school in Genesee County. It is meant to be supplemental to, and an enrichment of, the existing program. The curriculum is planned for both those students intending to enter the labor market immediately as well as preparing for college upon graduation from high school. All students find added enrichment in the skills and practices provided by these programs. The BOCES Vocational program is meant to supplement, not supplant, the course of study at Byron-Bergen Sr. High School.

What Vocational Education has to offer -

- Preparation for initial employment or college education in a variety of vocational and technical fields.
- Up to four units of high school credit per year.
- Work Experience and Work Exploratory programs giving students opportunities to gain experience, confidence and a better understanding of the vocational-technical field they are pursuing.
- A Student Placement program to assist graduating students in securing employment or college placement.
- Articulation and enrichment agreements with Genesee Community College, Monroe Community College, Canton College, and Community College of the Finger Lakes. Qualified graduates may be granted college credits and/or advanced placement.

Courses of Study for 2022-2023 include: (subject to change)

(Embedded means that the courses specified are an integral part of the BOCES course)

Animal Science (Science & ELA courses embedded) – up to 3 college credits available)

Auto Trades: Automotive Technology (Math course embedded)

Auto Trades: Collision, Custom & Restoration (Math course embedded)

Building Trades (Math, science, & career and financial management courses embedded)

Career Assessment Program (CAP)

Conservation/Heavy Equipment (Science & ELA courses embedded)

Cosmetology (Science course & Lab time embedded)

Criminal Justice (Science & ELA courses embedded)

Culinary Arts (Math, science, & ELA courses embedded) – up to 6 college credits available

Diesel Mechanics

Electro-mechanical Trades (Math & science courses embedded) – up to 9 college credits available

Graphic Arts (Math course embedded)

Health Dimensions (Science & ELA courses embedded)

Metal Trades (Math course embedded)

Programming and Interactive Media (PIM) – up to 18 college credits available (Math course embedded)

Only available to take Senior year

Health Careers Academy – up to 15 college credits available

Justice Academy – up to 15 college credits available

Information Technology Academy – up to 17 college credits available

Students may also wish to join one or more of the vocational clubs available. Many of these organizations participate in local, regional, state and national skills competitions. Genesee Valley BOCES has chapters of the following national organizations: DECA (Distributive Education Club of America), FBLA (Future Business Leaders of America), VICA (Vocational Industrial Club of America) and FFA (Future Farmers of America). Qualified students are inducted into the National Vocational Technical Honor Society. Through club membership, students learn real life and vocational skills. Members develop leadership, career and citizenship skills, while making new friends and having fun.

Students interested in a BOCES program should request a description of the program of interest from the High School Counseling. Students enrolled in an approved Career & Technical program who successfully complete all requirements, earn a technical endorsement seal to be affixed to their high school diploma. Requirements for earning technical endorsement include passing an assessment based on industry and national standards. Other requirements include class average and attendance. Your Career & Technical instructor can provide you with the details. To optimize student success, enrollees must have reached the grade levels described below.

GUIDELINES FOR DETERMINING ACCEPTANCE INTO A BOCES VOCATIONAL PROGRAM

1. Juniors have first consideration in a two-year program.
2. Seniors have first consideration in a one-year program.
3. Successful completion of recommended courses and consistent school attendance will be evaluated when considering a student's occupational eligibility.
4. Before attending a vocational program as an 11th grader, student should have successfully completed English 9 and 10, Social Studies 9 and 10, two years of mathematics, two years of science, one year of Fine Arts, Health, and one unit of Physical Education. Completion of Career Skill/Financial Management at BOCES is required for students using a vocational program as a 5-unit sequence for a Regents Diploma with Advanced Designation.