



# GATES CHILI HIGH SCHOOL

## *Program of Studies Course Selections*



**2018-2019**

**THE SPARTAN WAY** ~ Respect : Responsibility : Compassion : Hard Work

*Together we teach and inspire excellence for all learners.*



# Introduction

Dear Students, Parents, and Guardians:

Throughout this program you will find that Gates Chili High School offers a wide variety of courses that will prepare students for the demands of college and build career related skills. We encourage all students to challenge themselves by enrolling in rigorous courses that will prepare them for life beyond high school, and create opportunities in post-secondary education and the work force.

In addition to offering courses aligned to the NYS Regents curricula, Gates Chili partners with local colleges to provide dual credit courses that offer students the opportunity to earn college credits while meeting NYS graduation requirements. Advanced Placement (AP) courses are also offered through the College Board where students experience the rigor of college level work with the opportunity to sit for a national exam at course completion. These courses weigh heavily on colleges' and universities' acceptance decisions.

Together, our families and school personnel form a partnership that shares the responsibility for the success of our students. This document acts as a guide for the course selection process, but open communication with your child's counselor and teachers is crucial in maximizing the educational experience. Please feel free to contact our counseling department with any questions you may have, or to set up an appointment to discuss course selections. We are excited about the learning opportunities we offer and look forward to assisting you.

Sincerely,

High School Administration & Counseling Teams

## Dimensions of a Quality School

### Student Development

The school promotes student development by providing opportunities to acquire the knowledge and skills that allow students to achieve academic and social independence.

### Learning Environment

The learning environment is a network of systems that supports the needs of District stakeholders.

### Educational Program

The educational program is comprehensive, rigorous, meaningful, and standards based with a goal of creating college and career ready students.

### School Culture

The school culture is one of mutual respect, where all stakeholders work together to support the development of the individual student intellectually, socially, emotionally, and physically.

***"Together we teach and inspire excellence for all learners."***

Gates Chili High School • 1 Spartan Way • Rochester, NY 14624 • 585.247.5050

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## Nondiscrimination Policy

The Gates Chili Central School District hereby advises students, parents, employees and the general public that it offers employment and educational opportunities, including vocational education opportunities, without regard to sex, race, color, national origin or handicap. Inquiries regarding this nondiscrimination policy may be directed to either representative below:

*Title IX Officer*  
 Assistant Superintendent for Administration and Personnel  
 Gates Chili Central School District  
 3 Spartan Way  
 Rochester, New York 14624

*Section 504 Coordinator*  
 Director of Pupil Services  
 Gates Chili Central School District  
 3 Spartan Way  
 Rochester, New York 14624

# New York State Graduation Requirements \*

## Required Classes

Subject	Units
English	4
Social Studies	4
Mathematics	3
Science Must include 1 unit from a Physical Setting course and 1 unit from Living Environment	3
Health	0.5
Art and/or Music, or DDP, or Creative Design for Fashion and Home	1
Foreign Language An advanced designation diploma requires 3 units of <b>Foreign Language</b> or a 5 unit sequence in <b>Business, Technology, Family &amp; Consumer Science, Art, Music</b> or <b>WEMOCO</b> .	1
Physical Education	2
Electives Advanced Designation Diplomas require 1.5 units	3.5
<b>Total Units</b>	<b>22</b>

## Required Regent Exams

<b>Advanced Designation w/ Honors Diploma</b> ( <i>Passing average of 90 or above on Regents Exams</i> )	
<ul style="list-style-type: none"> <li>• ELA</li> <li>• Global History &amp; Geography</li> <li>• US History &amp; Government</li> <li>• Foreign Language</li> </ul>	<ul style="list-style-type: none"> <li>• Living Environment <i>and</i> a Physical Setting</li> <li>• Algebra 1 and Geometry and Algebra 2</li> </ul>
<b>Advanced Designation Diploma</b> ( <i>Passing score of 65 or above on Regents Exams</i> )	
<ul style="list-style-type: none"> <li>• ELA</li> <li>• Global History &amp; Geography</li> <li>• US History &amp; Government</li> <li>• Foreign Language</li> </ul>	<ul style="list-style-type: none"> <li>• Living Environment <i>and</i> a Physical Setting</li> <li>• Algebra 1 and Geometry and Algebra 2</li> </ul>
<b>Regents Diploma</b> ( <i>Passing score of 65 or above on Regents Exams</i> )	
<ul style="list-style-type: none"> <li>• ELA</li> <li>• Algebra 1</li> <li>• Global History &amp; Geography</li> </ul>	<ul style="list-style-type: none"> <li>• US History &amp; Government</li> <li>• Living Environment <i>or</i> a Physical Setting</li> </ul>
<b>Local Diploma</b> ( <i>Available for students with disabilities only</i> ) - <i>must score 55 or above on Regents Exams</i>	
<ul style="list-style-type: none"> <li>• ELA</li> <li>• Algebra 1</li> <li>• Global History &amp; Geography</li> </ul>	<ul style="list-style-type: none"> <li>• US History &amp; Government</li> <li>• Living Environment <i>or</i> a Physical Setting</li> </ul>

# Counseling Department

## College and Career Readiness

The department of counseling and student services provides a comprehensive curriculum intended to support all students in acquiring the skills, knowledge and attitudes needed to become effective students, responsible citizens, productive employees and lifelong learners. As an integral part of the school's total program, the Counseling Department Curriculum adheres to the American School Counselor's Association National Model. This model is competency based and reflects three domains of service: academic, personal/social, and career development.

### Counseling Services:

- Assistance with course selections
- Career Exploration
- Classroom counseling instruction
- Educational presentations for parents
- Group counseling experiences
- Individual personal, social and academic counseling services as needed
- Post-graduate planning

### Naviance

Naviance is a web based software program for college/career exploration. Naviance provides students with a variety of features including college research and matching tools, course planning, career assessments and personality inventories to help students connect what they are doing in school, their interests and abilities to potential careers.

Additionally, Naviance's integration with "The Common Application" facilitates the submission of college applications, transcripts, school forms and recommendations through Naviance eDocs.

### Freshman Year:

- Conferences, that may include parents, to develop a flexible four-year educational plan
- Further exploration of Naviance

### Sophomore Year:

- Assistance in gaining information about careers, colleges and course choices
- Career planning information including an occupational interest inventory

### Junior Year:

- Classroom instruction to discuss the Preliminary Scholastic Aptitude Test (PSAT)
- Informational meetings for parents and students regarding post-secondary planning and financial aid
- Information on SAT and ACT testing
- Opportunities to meet with college representatives
- Planning post high school opportunities through group and individual conferences

### Senior Year:

- Information regarding topics such as: financial aid college entrance tests, careers and colleges
- Informational meetings for parents & students regarding post-secondary planning and financial aid
- Opportunities to meet with college representatives
- Scholarship information

# Career & Technical Education



Career and Technical Education programs contain a related and continuous series of courses in a career and technical area. Academic and technical knowledge and skills within this series prepares students for further education or employment in a career. The program is supported by work-based experiences, integrated and specialized instruction, a Work-Skills Employability Profile, technical assessments, and data on student performance in academic and technical areas.

Students enrolled in a CTE program, who successfully complete all requirements, will earn a technical endorsement that will be affixed to their high school diploma.

CTE programs are offered in Business & Finance and Consumer Science (Child Development).

Requirements leading to the technical endorsement include:

- completion of a minimum of 22 units of credit
- passing grades on 5 required Regents examinations or approved alternatives
- successful completion of a 3-part technical assessment which is an industry-developed assessment consisting of written examinations, student projects, and student demonstrations of technical skills that measure proficiency in a specific technical field through the application of national standards
- completion of a work-based learning experience embedded in the program
- completion of a work-skills employability profile

Any student with a disability who successfully completes a CTE course will receive documentation of skills acquired in the career and technical education course. The skills identified in the documentation are those specified on the Work-Skills Employability Profile. The Work-Skills Employability Profile will provide employers with documentation of work skills acquired at the completion of the CTE program.

Students who want to enroll in a CTE program should inform their counselor of their decision so proper scheduling can occur.

## Business & Finance

### Academy of Business & Finance - 5 credits

#### Mandatory 1 Credit

Careers and Financial Management	(.5)
Wall Street 101+ or online Personal Finance	(.5)

#### Choose 1-3 Credits

Accounting+	(1)
Business Management & Marketing+	(1)
College Accounting+	(1)

#### Choose 2-3 Credits

Math with Business Applications	(1)
Microsoft Applications+	(.5)
Digital Communications+	(.5)
Sports and Entertainment Marketing+	(.5)
Junior Achievement Economics+	(.5)
Business Cinema+	(.5)

#### Mandatory 1 Credit

Work Based Learning (Co-op, 3 Job Shadows, or Internship)	(1)
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#### Assessments

NOCTI Business Financial Management	
Final Project and Presentation (Employability Profile)	

*Business students will be eligible for the NYS Business and Marketing Honor Society by completing Financial Management CTE.*

## Family & Consumer Science

### Academy of Early Childhood Education - 5 credits

#### Mandatory 3 Credits

Career and Financial Management	(.5)
Developing Child+	(1)
Entrepreneurship /E-Commerce+	(.5)
Advanced Health	(.5)
Psychology	(.5)

#### Mandatory 1 Credit Courses

Business Management & Marketing+	(1)
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#### Mandatory 1 Credit

Work Based Learning (Co-op, 3 Job Shadows, or Internship)	(1)
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#### Assessments

NOCTI Early Childhood Care and Education	
Final Project and Presentation	

+ Dual enrollment course

# Academic Services

## Academic Intervention Services

The Academic Intervention Services (AIS) Compliance Plan has been developed in response to State Education Department Requirements for students. Students determined to be at risk in one or more of the following areas: Language Arts, Mathematics, Science, or Social Studies may receive AIS support. The Plan outlines a screening process to be followed, which includes a set of entrance and exit criteria respectively.

The intensity of service is based upon the level of performance in class and/or exams. Additionally, services may be entered, changed in intensity, or exited based upon multiple measures. These measures include teacher recommendation, classroom performance, and State Regents Scores. The AIS class is a scheduled non-bearing credit class for ½ year or full year, dependent upon a student's performance.

## English as a New Language (ENL)

*This section is for informational purposes only. Eligibility for the following program and classes is determined by District and New York State guidelines.*

The English as a New Language (ENL) Program serves the English language acquisition needs of students whose native language is not English. The Program focuses specifically on building academic language needed for success in high school so that students who are English Language Learners (ELL's) can be college and career ready. Students are placed in ENL classes based on their proficiency level in English. This level is determined either by the assessment they take when they first enter a New York State school, the NYSITELL (New York State Identification Test for English Language Learners), or by an annual measure of English language proficiency, the NYSESLAT (New York State English as a Second Language Achievement Test). New York State has identified 5 levels of English language proficiency: Entering (beginner); Emerging (low intermediate); Transitioning (intermediate); Expanding (advanced); and Commanding (proficient).

ENL Services for English Language Learners at the Entering through Transitioning levels involve two main components:

- ENL classes taught by a certified ESOL (English to Speakers of other Languages) teacher where English Language Learners receive instruction in all aspects of language learning (reading, writing, listening and speaking) to develop the academic language and background knowledge needed to be successful in content area classes.
- Integrated ENL and content area classes where ESOL teachers co-teach with content area teachers in content area classes required for graduation (English, Mathematics, Science, or Social Studies).

ENL Services for English Language Learners in the Expanding and Commanding levels are provided through Integrated ENL and content area classes only so that these students can receive any extra support needed to further their English language development.

The ESOL teacher and the students' general education teachers work closely together to help ensure student success. Students in the ENL Program are required to achieve the same Common Core Standards and complete the same graduation requirements as all other students.

## Special Education

Gates Chili High School offers Special Education Services for students with disabilities. Every student with a disability has an Individual Educational Plan (I.E.P.) to address his or her needs in the classroom. Students involved in the continuum of services are working on goals and objectives to become college and/or career ready and to reach the standards of the Gates Chili School District along with the curriculum requirements of New York State. The continuum of services offered through the Special Education department provides the least restrictive educational environment possible for student success.



# Program Information

## Advanced Placement Program

The Advanced Placement (AP) Program is a cooperative educational endeavor sponsored by the College Board. Based on the fact that many young people can complete college-level studies in their secondary schools, it represents a desire of schools and colleges to foster such experiences. Like other programs of the College Board, this program is national; its policies are determined by representatives of member institutions and its operational services are provided by the Educational Testing Service.

Advanced Placement serves three groups: students who wish to pursue college-level studies while still in secondary school, schools that desire to offer these opportunities, and colleges that wish to encourage and recognize such achievement. Participating colleges may grant credit and appropriate placement to students who have done well on the examination.

Although the program provides a curricular guide and examination in each field, all colleges do not follow the same or even similar procedures upon receipt of AP Examination grades. Many colleges grant credit and placement automatically for qualifying work on the examinations; some grant either placement or credit only; others are still establishing their policies. If you have any questions about the AP Program you should contact the Counseling Office. The District currently offers the following AP courses:

- AP American Government and Politics
- AP American History
- AP Biology+
- AP Calculus AB
- AP Calculus BC
- AP Chemistry+
- AP Computer Science
- AP English Literature 12
- AP Environmental Science+
- AP Language and Composition
- AP Micro and Macro Economics+
- AP Physics I+
- AP Physics C
- AP Psychology
- AP Statistics
- AP World History I
- AP World History II

## Career Internship Program

The Career Exploration Internship Program is a paid or non-paid internship experience that provides individualized career placements for our students in different pathways of their choice. The students may earn either ½ unit or 1 full unit of credit during their junior or senior year.

The program provides students with the opportunity to gain insight and experience in occupations and careers based on their individual interests.

Students must apply and meet the criterion to be accepted into the program for the following year. This criterion includes excellent attendance, good academic standing, positive teacher evaluations, and current working papers. Schedules must allow time either through late arrival, early release, or out-of-school hours to complete the on-the-job portion of the internship.

Students must supply their own transportation to their internship placement. Each week interns meet with their mentors for approximately one period and also attend a seminar class with the Coordinator. Interns are responsible for handing in signed timesheets each week, completing journal entries that reflect on their experiences, and successful completion of a work portfolio including items such as a resume and cover letter.

### Hour Requirements

NYS Dept. of Education Credit	Internship Hours	Seminar Hours with Coordinator
½ unit	60	27 hours (1 period per week plus independent work)
1 unit	120	54 hours (1 period per week plus independent work)

## Career Shadowing Program

The Career Shadowing Program is designed to provide the students of Gates Chili High School with the opportunity to investigate, observe, and evaluate specific occupations which may be related to their potential career interests.

The purpose of the Career Shadowing Program is to provide an organizational framework that outlines an educationally sound process students can follow in order to explore occupations that are of interest to them. Students will spend a work day, or part of a work day, with a Career Shadowing Mentor who is currently employed in the occupation the student wishes to research.

## Crossroads Program

Crossroads is a program that assists students in meeting their academic needs in smaller, more structured classroom environments. The curriculum parallels that of the Regents school program and offers an active approach to learning. Goal setting, organization, study skills and critical thinking are the prime focus of our program.

## Course Load and Grade-Level Status Requirements

All students will be scheduled for at least 6.5 credits each year. We encourage all students to register for additional courses.

Minimum credit requirements needed to advance to the next grade level are:

From grade 8 to 9 must have successfully completed the 8th grade.

From grade 9 to 10 must have earned 5.5

From grade 10 to 11 must have earned 11.0

From grade 11 to 12 must have earned 16.5

In considering class status, units must be earned prior to September of the coming year. Class status will be changed only at the beginning of the school year.

## Course Selection

The academic requirements for Mathematics, Science, English and Social Studies are essentially the same for all students. The materials used, the depth of content studied, and the methodology varies depending upon the level of the selected course. Teacher recommendation for course selection will consider student academic achievement, test taking skills, performance on standardized achievement tests, student effort, and interest in the subject matter.

Advanced Placement (AP) - courses that culminate in an Advanced Placement exam. High school students can earn college credit credit for qualifying AP exam scores. The college credit option does require a fee.

Dual Enrollment (+) - courses that offer students the opportunity to concurrently earn college and high school credit. In order to receive the college credit students are required to pay a reduced course fee.

Honors (H) – courses for students who are eligible for enrichment and/or acceleration.

Regents (R) – courses culminating in a Regents examination.

Courses in other subject areas, and/or electives, are designed for students to achieve success at all academic levels.

## Course Weighting

The following point values are added to a student's quarterly grades to encourage students to take rigorous and challenging courses.

Advanced Placement courses "10"

Dual Credit courses "8"

Honors classes "5"

Both weighted and non-weighted cumulative averages are reported on the Gates Chili High School transcript. We report both averages since the majority of our local and competitive universities use the non-weighted average for college admission decisions. The weighted average is used to determine Academic Varsity Letter, Honor Roll, National Honor Society eligibility and Senior class rank.

## Course Add/Drop Process

Students are expected to maintain a minimum course load of 6.5 credits each year. Course requests are shared with the students and their families early in the scheduling process. Students who have engaged in the course selection process should have a well planned schedule that does not require changes. A course can be added during the first two weeks of class and can be dropped within the first full week of the class. At no point will a student be allowed to drop a class for a study hall/resource. Choose your courses carefully. Changes are only made for educational reasons and must follow the approved add/drop process.

## Dual Enrollment & New Visions Program

The Dual Enrollment Program is a cooperative educational endeavor presently between Gates Chili High School, Monroe Community College, Genesee Community College, Finger Lakes Community College, Roberts Wesleyan College and Syracuse University. There are numerous courses offered between the colleges and Gates Chili High School. These courses are identified by a + at the end of the course title. The New Visions Program also offers dual enrollment courses to students during their senior year. This offers students the opportunity to concurrently earn college and high school credit. In order to receive the college credit students are required to pay a reduced course fee.

Courses identified as Dual Enrollment (+) may change annually.

## Honor Roll Standards

### High Honor Roll

In order to qualify for the High Honor Roll, a student must earn an overall combined weighted average of 92 for the marking period.

### Honor Roll

To be eligible for the Honor Roll, a student must earn an overall combined weighted average of 85 for the marking period.

# NCAA Eligibility

The NCAA Eligibility Center certifies the academic and amateur credentials of student-athletes intending to participate in intercollegiate athletics at the Division I or II level. **It is the responsibility of each individual student-athlete to make sure that their courses are approved by the NCAA yearly.**

Gates Chili School District has a list of NCAA approved courses, code 334803, on the Eligibility Center website ([www.eligibilitycenter.org](http://www.eligibilitycenter.org)). All Division I or II athletes use code 9999 when reporting ACT or SAT scores to the NCAA eligibility center.

- Click on the "NCAA College Bound Student- Athlete" link to enter the site.
- Navigate to the "Resources" tab and select "U.S. Students" where you will find the link for the list of NCAA course.

After checking the list and completing the registration process, visit the HS Counseling Center to request an initial copy of your transcript be sent to the Eligibility Center. Students who have attended more than one HS, will need to request transcripts from each HS. A final transcript will be sent to the NCAA upon graduation.

# Course Selections

## Art

### Art Department Sequences

Students may use a 5-unit sequence in Art to replace the 3 required units of language for the Regents with Advanced Designation Diploma.

### Art Department Information

#### Studio Art+

Successful completion of Studio Art+ is the prerequisite for Drawing, Advanced Drawing, Painting, Sculpture and Advertising & Graphic Design.

\*\*Any 12th grade student who now has room in their schedule for art electives may bypass the prerequisite of Studio Art.

*The student's School Counselor and the Art Department must meet to discuss any senior bypassing the prerequisite.*

1. Studio Art+
2. Drawing\*
3. Advanced Drawing\*
4. Painting I\*
5. Painting II\*
6. Sculpture\*
7. Advertising & Graphic Design\*
8. Printmaking
9. Jewelry
10. Computer Graphics & Animation+
11. Digital Photography
12. Ceramics
13. Digital Video Making
14. Portfolio Preparation/Advanced Studies

*Studio Art+ is a prerequisite for these courses*

#### \*Advanced Drawing

**Semester Course      ½ Unit**  
**Grades 10-12**

**Prerequisites:** Studio Art+ and Drawing

This course is designed for students to develop advanced drawing skills and techniques. Individual artistic expression and exploration is encouraged with a strong focus on composition, presentation and quality. Students will work with a variety of mediums including pencil, charcoal, watercolor, ink, pastel and colored pencil.

#### \*Portfolio Preparation/Advanced Studies

**Full Year Course      1 Unit**  
**Grade 12**

**Prerequisites:** Studio Art+, Drawing, plus one other art course.

This course is designed specifically for seniors interested in pursuing art as a career. Students will research colleges pertaining to their desired field in order to complete the required portfolio for admission. Students will be working on individual projects according to their field of choice and exploring new mediums. Work will be in-depth and individual. Exposure to museums, galleries and local artists is a focus in Advanced Studies and students are encouraged to attend local artist events. A digital portfolio will be created where the final portfolio will count as the final exam for the course. This course is designed to expand and enhance student's creativity, experiences and skills.

#### \*Advertising & Graphic Design

**Semester Course      ½ Unit**  
**Grades 10-12**

**Prerequisite:** Studio Art+ or Art Teacher recommendation

The advertising and Graphic Design class is designed to provide students with knowledge and skills in the graphic design profession, which emphasizes design, advertising, illustration, and digital and multimedia preparation of printed and electronic promotional materials.

Students will be trained in the development of concept and design for promotional materials such as newspaper and magazine advertisements, posters, folders, letterheads, corporate symbols, brochures, booklets, preparation of art for printing, lettering and typography, photography and electronic media. Adobe software.

+ Dual enrollment course

## **Ceramics**

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisite:** None

This course provides an exploration of the history, uses and properties of clay. The student will create using hand-building techniques: pinching, coil, slab, and combinations as used in pottery and sculpture. The use of the wheel is demonstrated and students spend time throwing basic forms that may include cylinders, bowls, plates, and bottles. Students work with surface treatments including paint, textures, colored slips and glazes, and non-firing stains.

## **Computer Graphics and Animation+**

**Semester Course**      **½ Unit**  
**Grades 9-12**

**Prerequisite:** None

Computer Graphics and Basic Animation is a studio course that deals with the creation of computer generated designs while incorporating the Elements of Art and Principles of Design. Students in this course will use the computer and other electronic media as design tools to communicate visual ideas and demonstrate a variety of approaches to artistic creation. The featured software is Adobe Illustrator, Adobe Photoshop and Adobe After Effects. Some computer knowledge is helpful.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## **Digital Photography**

**Semester Course**      **½ Unit**  
**Grades 9-12**

**Prerequisite:** None

Studio in Digital Photography is an introduction to the historical, technical, operational and creative aspects of digital photography. The course will focus on the production of digital images and visual sequences that tell a story, communicate an idea, illustrate a theme, or convey a message. Techniques of planning, refining, capturing and manipulating images will be explored in a workshop type atmosphere.

## **Digital Video Making**

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisite:** None

Video Arts is an introduction to the historical, technical, operational, and creative aspects of video production. The course will focus on the student as video-maker. Students will work in several genres, including documentary, poetry-video, abstract and personal narrative forms. The course will focus on the production of video images and visual sequences that tell a story, communicate an idea, illustrate a theme, or convey a message. Similarities and differences between film and video will be discussed. The historical aspect will be studied by the screening of a wide variety of works from video art to pieces made for television. Thumbnail sketches, rough drafts, storyboards, written work, and complete projects will be presented in class to help develop analytical and critical skills for this media. The students will participate in a critical analysis of each student's work. The technical subject to be covered will include the basic video camera operations, lighting, sound and editing. All of this including the techniques of planning, refining, capturing, producing, and editing video presentations will be explored in a studio type atmosphere.

## **\*Drawing**

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisite:** Studio Art+

This course is designed to be an introductory course to drawing and drawing mediums. Contour drawing, shading, still life and colored pencil are some of the units of study that will be explored. Various pencil weights as well as mixed medium will be used. Students will refine their drawing skills as well as enhance their individual ability in drawing and in drawing presentation.

## **Jewelry**

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisite:** None

This course teaches the techniques, processes and designs of jewelry making. The primary objectives are exploring the development of skills, the use of tools, and refinement of craftsmanship in jewelry. Students will create unique pieces using sterling silver, copper and semi-precious gem stones. Students will also be exposed to enameling, soldering and other metal use. Other alternatives in materials may be purchased; the cost of materials of required projects will vary from \$15.00 to \$20.00.

## **\*Painting I**

**Semester Course**      **½ Unit**  
**Grades 10-12**

Prerequisite: Studio Art+

This course presents the beginning techniques of painting. Emphasis is placed on drawing and composition both realistic and abstract. Surfaces, brushes and different kinds of paint are studied and applied. Acrylic paint is used to create landscape, imaginary and still life paintings. Over fifty artists are studied and their techniques applied to individual artwork.

## **\*Painting II**

**Semester Course**      **½ Unit**  
**Grades 10-12**

Prerequisites: Studio Art+ and Painting I

The second half of this course explores advanced painting techniques and subject matter. An individualistic approach allows the student to do research and personally express themselves. It is a continuation of the study of art history in painting as well as an in-depth research of artists and periods in art.

## **Printmaking**

*(Offered every other year opposite Sculpture – odd years starting with 2019)*

**Semester Course**      **½ Unit**  
**Grades 10-12**

Prerequisite: None

Printmaking is one of the oldest art forms! The printmaking course provides students with the opportunity to learn the four main printmaking processes and execute prints using each technique. The processes used include intaglio, relief, monoprint and stencil (silkscreen). Students will work with graphic images and reproduce multiple copies of their art and learn how to properly mat their prints. Printmaking is unique in that the students are able to reproduce multiple copies of their artwork and learn ways in which professional artists and designers have their work reproduced.

## **\*Sculpture**

*(Offered every other year opposite Printmaking – even years starting with 2018)*

**Semester Course**      **½ Unit**  
**Grades 10-12**

Prerequisite: Studio Art+ or Art Teacher recommendation

In this course the students will learn to see and portray man-made and organic objects as well as the human figures sculpture. They will learn to utilize a variety of materials and processes such as clay modeling, woodcarving, assemblage, additive and direct plasterwork. Students will select appropriate methods to pursue the realization of their creative concepts. Historical and theoretical issues addressed through lectures and digital slide presentations. This class will introduce the use of sculptural form as a vehicle for the creative expression of personal ideas and contemporary concepts. Emphasis will be placed on an awareness of the qualities of materials and how they can be employed to support aesthetic and conceptual objectives. Areas of study include realistic and abstract sculpture in wire, wood, paper, plaster, plastics, papier-mâché and found object.

## **Studio Art+**

**Full Year**                      **1 Unit**  
**Grades 9-12**

Prerequisite: None

Studio Art+ is the prerequisite for several art courses and is the foundation course of the Art Department.

This course is designed to give students access to a variety of mediums. It is an introductory course that focuses on the Elements and Principals of Design, with a focus on mediums where we offer upper level classes. These mediums include (but are not limited to) drawing, painting, printmaking, sculpture, colored pencil, Photoshop and Illustrator.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

+ Dual enrollment course

# Business

## Business Offerings at a Glance

### Full Year Course Offerings

Accounting+	9	10	11	12
College Accounting+		10	11	12
Business and Personal Law+	9	10	11	12
Business Management & Marketing+	9	10	11	12
Diversified Cooperative Work Based Learning (Co-op)			11	12
Career Exploration Internship Program (CEIP)			11	12
Mathematics with Business Applications	9	10	11	12

### Half Year Course Offerings

Microsoft Applications+	9	10	11	12
Careers and Financial Management	9	10	11	12
Wall Street 101+	9	10	11	12
Digital Communications+	9	10	11	12
Entrepreneurship/ E-Commerce+	9	10	11	12
Sports and Entertainment Marketing+	9	10	11	12
Career Exploration Internship Program			11	12
School Store Operations Internship		10	11	12
Business Cinema+	9	10	11	12
Online Personal Finance+			11	12

## Business/Marketing Education Sequences

### Business/Marketing – 5 Unit Sequence

Students may use a 5-unit sequence in business to replace the 3 required units of language for the Regents with Advanced Designation Diploma.

A combination of any of the following courses:

Accounting+	(1)
College Accounting+	(1)
Business and Personal Law+	(1)
Business Management & Marketing+	(1)
Careers and Financial Management	(.5)
Microsoft Applications+	(.5)
Diversified Co-Op	(1)
Mathematics with Business Application	(1)
Wall Street 101+	(.5)
Sports and Entertainment Marketing+	(.5)
Digital Communications+	(.5)
Entrepreneurship and E-Commerce+	(.5)
Business Cinema+	(.5)
Online Personal Finance+	(.5)

## Career & Technical Education Endorsement

### Academy of Business & Finance - 5 credits

#### Mandatory 1 Credit

Careers and Financial Management	(.5)
Wall Street 101+ or Online Personal Finance+	(.5)

#### Choose 3 Credits

Accounting+	(1)
Business Management & Marketing+	(1)
College Accounting+	(1)

#### Choose 2- 3 Credits if needed

Mathematics with Business Applications	(1)
Microsoft Applications+	(.5)
Digital Communications+	(.5)
Sports and Entertainment Marketing+	(.5)
Junior Achievement Economics+	(.5)
Business Cinema+	(.5)

#### Mandatory 1 Credit

Work Based Learning (Co-op, 3 Job Shadows, or Internship)	(1)
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Assessments - NOCTI – Business Financial Management

Final Project and Presentation (Employability Profile)

Business students will be eligible for the NYS Business and Marketing Honor Society by completing Financial Management CTE.

+ Dual enrollment course

# Diversified Cooperative Work Based Learning Program

Prerequisite: Teacher-Coordinator Permission

## CO-OP

**200 hours = ½ unit, 400 hours = 1 Unit**

## Internship

**60 hours= ½ unit 120 hours = 1 Unit**

**Co-op** or Diversified Cooperative Work Experience is a New York State approved Work Experience Program geared towards juniors and seniors and affords participants with a chance to experience “first hand,” a career specific employment opportunity. With this, students are able to utilize many of the concepts, procedures, and skills that they have developed throughout their educational and personal experiences. The CO-OP opportunity offers the student school credit using their current job, whereas the Internship is school credit related to a career pathway. In addition to classroom instruction, the teacher-coordinator will provide on-site supervision.

## School Store Operations Internship

The New School Store Operations Internship is for students who want to learn basic retail operations by running a school-based store. Students will learn many business functions including accounting, research, marketing, planning, managing and selling. Students will also learn service skills and attitudes required for successful store operations. In addition to working in the store, students will be required to complete various class learning tasks related to store operations. Students will be placed in positions of trust and responsibility and allowed to manage their time in this program. Students must be willing to meet with their supervisor for planning and training as needed (The general guidelines for internship credit will follow the CEIP program). This will be part of the Diversified Co-Op work experience.

## Career Exploration Internship Program

The Career Exploration Internship Program (CEIP) is a non-paid internship experience that provides individualized career pathway placements for our students. The students may earn either ½ unit or 1 full unit of credit during their junior or senior year. This program provides students with the opportunity to gain insight and experience in occupations and careers based on their own individual interests. In addition to classroom instruction, the teacher-coordinator will provide on-site supervision.

NYS Dept. of Education Credit	Internship Hours	Seminar Hours with Coordinator
½ unit	60	27 hours (1 period per week plus independent work)
1 unit	120	54 hours (1 period per week plus independent work)

*Note: Transportation required if placement is during school hours.*

## Accounting+

**Full Year Course 1 Unit  
Grades 9-12**

Prerequisite: None

Upon completion of this course the student should be able to keep a simple set of books. Academic students planning on majoring in Accounting or Business Administration in college, and students planning on owning his/her own business, will find this course extremely beneficial. This course gives an overview of accounting systems and processes with particular emphasis on the principles and procedures of the complete accounting cycle. It also provides opportunities for computer utilization in Microsoft Excel and Peachtree accounting software. Sub-systems for handling cash receipts, cash payments, purchases and sales of merchandising business are also presented.

*Note: Students may take this course as a business elective or a third year of mathematics.*

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Business and Personal Law+

**Full Year Course 1 Unit  
Grades 9-12**

Prerequisite: None

This course is designed to give students a practical knowledge of their rights and obligations in ordinary business transactions. Realistic examples are used to teach a wide range of legal concepts. A variety of videos, speakers, and activities are planned to reinforce classroom discussion. Business and Personal Law serves as an excellent background for those contemplating business courses in college and is recommended to both business and academic students. Credit for this course may be used to meet sequence requirements of Business/Marketing education and/or the fifth unit of Social Studies in a 5-unit Social Studies sequence only for students pursuing an occupational sequence.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*



## **Business Cinema+**

**Semester Course**      **½ Unit**  
**Grades 9-12**

Prerequisite: None

Using a cinematic approach, this course addresses the concepts and challenges businesses face in studying business topics using current digital media and instruction (movies, online videos, podcasts, websites, web 2.0 tools...). The unique media and cinematic instructional format allows students the additional learning experiences from a variety of current digital media resources to develop a real world foundation and expand their knowledge and resources of all of the areas of business. Themes include the digital age of business and consumers, management, finance, small business, globalization, social responsibility, online presence and many more topics. Students will increase their awareness of the overall environment and function of business as well as observe role in the digital society.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## **Business Management & Marketing+**

**Full Year Course**      **1 Unit**  
**Grades 9-12**

Prerequisite: None

This is an excellent course for students who are thinking of majoring in business in college or for those who want to gain essential business knowledge to create better opportunities for future success in any career pathway. Business Management/Marketing emphasizes a hands-on approach to introduce students to the fundamental functions of business management and marketing concepts within all types of organizations. Students will develop and run their own virtual company using specialized business simulation software to understand the interrelationships of the basic business functions of management and marketing. Students will learn and demonstrate skills in word processing, spreadsheets, databases, internet research, and presentations that are common in business and industry today. Students may have the option to receive college credit hours. The college credit option DOES require a fee.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## **Careers and Financial Management**

**Semester Course**      **½ Unit**  
**Grades 9-12**

Prerequisite: None

This course is designed to develop transferable skills, which can be used at work or at home. Its purpose is to explore occupational interests and abilities prior to taking more specialized occupational courses in high school or college. The first objective of this course is to provide students with the opportunity to learn about the features of our economy, explore a variety of careers, and learn the skills and competencies including personal selling and customer service skills needed for success in the respective career pathway. The second objective of this course is to teach students the fundamentals of personal financial literacy so they can make informed choices related to smart consumerism, budgeting and banking, using credit, investing, insurance, retirement planning, and understanding taxes.

*Required course for CTE endorsement on the diploma.*

## **College Accounting+**

**Full Year Course**      **1 Unit**  
**Grades 10-12**

Prerequisite: None

College Accounting uses an integrated approach to teach accounting. Students first learn how businesses plan for and evaluate their operating, financing and investing decisions and then how accounting systems gather and provide data to internal and external decisions makers. This year-long course covers all the learning objectives of a traditional college level financial accounting course, plus those from a managerial accounting course. Topics include an introduction to accounting, accounting information systems, time value of money, and accounting for merchandising firms, sales and receivables, fixed assets, debt and equity. Other topics include statement of cash flows, financial ratios, cost-volume profit analysis and variance analysis.

*Note: Students may take this course as a business elective or a third year of mathematics.*

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Entrepreneurship/E-Commerce+

(Start Your Own Business)

**Semester Course**      **½ Unit**  
**Grades 9-12**

**Prerequisite:** None

Entrepreneurship/E-Commerce focuses on recognizing a business opportunity, starting a business based on the recognized opportunity, and operating and maintaining that business. This course includes planning and strategy concepts, financial and organizational considerations, personal selling and customer service skills, accounting and financial controls, time management, materials management, human resources management, facilities management, teamwork, decision making, problem solving, work ethics, and creative thinking. Students will have the opportunity to gain skills in emerging technologies that become the standard for conducting global business (E-Commerce). Students can participate in the SUNY Geneseo Young Entrepreneurs Academy (YEA) program which is an optional program that will allow students to start their own business.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Digital Communications+

**Semester Course**      **½ Unit**  
**Grades 9-12**

**Prerequisite:** None

This exciting **hands-on** one-semester course focuses on two objectives- the application of creating professional keyboarding skills and written business documents for school and work, while integrating the variety of rich and interactive forms of online communication and collaboration tools that are becoming standard for success in college and the professional workplace. Successful students will improve their individual touch-keyboarding skills by drilling on speed and accuracy, while developing a high level of skill in typing situations using advance features in Microsoft Word, including mail merging, referencing and reviewing options. Students will understand and apply various content and management tools available online to facilitate competencies for the 21st century learner and worker. Including Web 2.0 tools – Google Documents, Google Blogger, news feeds(RSS, XML), wikis, and other productive and collaborative tools. Students will also be able to manage a popular email system (Microsoft Outlook) to electronically communicate professionally. Other topics will include examining ethical issues and digital citizenship by discussing, thinking, and sharing the process of using technology in today's personal and professional life.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Mathematics with Business Applications

**Full Year Course**      **1 Unit**  
**Grades 9-12**

**Prerequisite:** None

This full year course covers fundamental mathematical operations and their application to business problems. Basic concepts and processes of mathematics are applied to various business situations including statistical analysis, merchandising, taxation, personal finance, payroll, financial statements, inventory, investments and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts for business and personal use.

*Note: Students may take this course as a business elective or a third year of mathematics.*

## Microsoft Applications+

**Semester Course**      **½ Unit**  
**Grades 9-12**

**Prerequisite:** None

This college level hands-on computer application course is designed to provide students an in-depth understanding of the most popular software applications used today. Students will become proficient in the many features of Microsoft XP Office Suite and other popular software programs. Upon successful completion students will be able to walk into a professional office and perform many of the same tasks that are being done in business today. Such tasks as preparing professional word processing documents, creating formula based spreadsheets with graphs, constructing and manipulating databases, preparing images using Adobe Photoshop Elements, composing multimedia presentations, creating brochures using desktop publishing, Internet applications and basic movie/video production will be covered. Students will integrate a variety of software applications and the Internet for research into a culminating project. If available, students may choose the option to receive 4 college credit hours for this course. The college credit option DOES require a fee.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

+ Dual enrollment course

## **Online Personal Finance+**

**Semester Course**      **½ Unit**  
**Grades 11-12**

**Prerequisite:** None

This is an Online Financial Literacy course for any student in the 11-12 grade levels. The need for Business and Marketing Education and specifically financial literacy is reinforced by the increasing demand in the workforce for financial managers, accountants, and other "office" occupations. Finance plays a vital role in the day-to-day activities of everyday life. Today's youth will be required to take more personal responsibility for actively managing their finances. All students, regardless of the career they choose, can benefit from Finance instruction in their own personal affairs.

In this course, students will learn how choices influence occupational options and future earning potential. The course content is designed to help the learner make wise spending, saving, and credit decisions and to make effective use of income to achieve personal financial success.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## **Sports and Entertainment Marketing+**

**Semester Course**      **½ Unit**  
**Grades 9-12**

**Prerequisite:** None

Marketing is a tool that has allowed the United States economy to be one of the most successful in the world. Sports and Entertainment play an important role in marketing and are important parts of this modern economy. Sports and entertainment marketing is one of the largest exports from the United States to the rest of the world. This course will teach students about basic elements of marketing and how these elements are applied to organizations involved in sports and entertainment industries. Computer technology will be used daily to support and enrich the curriculum. Over two hundred American universities today offer major concentrations in sports and entertainment marketing.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## **Wall Street 101+**

**Semester Course**      **½ Unit**  
**Grades 9-12**

**Prerequisite:** None (Business Unit)

The intention of this course is to expand student knowledge of their personal finances now and in the future. This course gives in-depth understanding into how students can manage their finances and why financial management is critical to personal success. Topics covered include: consumer purchasing strategies, consumer credit, fundamentals of investing (i.e. stocks, bonds, and mutual funds), real estate, insurance, financial management for businesses, accounting, and tax strategies. Computer applications will be coordinated for each unit. Guest speakers will be coordinated with each unit. The course focuses on the student's role as a citizen, student, family member, consumer, and active participant in the work and business world. The intent is to inform students of their various economic and financial responsibilities and to provide opportunities for self-awareness, expression, and advancement in a progressive and highly competitive society. Students will become knowledgeable of exciting career opportunities relating to the financial world.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

# English

## Advanced Writing

**Semester Course**      **½ Unit**

**Prerequisite:** Successful completion of Creative Writing

This course is designed as an elective for sophomore, junior and senior students who want to continue their in-depth writing experiences. Students develop ideas and create a writing portfolio based on their area of interest. Rewriting to achieve mastery is particularly emphasized. Students continue to compose and construct effective pieces that engage readers in the literary genres. This course is particularly helpful for those interested in college and professional writing. Also, through the course, there are guest writers and artists who share their experiences and knowledge of writing.

## Communication, Theatre, and Media Arts

**Semester Course**      **½ Unit**

**Grades 10-12**

This half-year, elective course offers students who are interested in communication as well as theatrical and media arts the opportunity to experience their history and progress. Then, ultimately the students will apply their learned knowledge in all areas of film, television, and theatre. The course is designed to allow students the opportunity to learn about the history, writing, staging, directing, as well as technological and business aspects of film, television, and theatre. Students will analyze texts and write and listen extensively. Throughout the semester, students will work on a variety of projects where they will apply their knowledge. Students interested in any area of the growing field of communication and entertainment will benefit from the rigorous curriculum offered in this course.

## Creative Writing

**Semester Course**      **½ Unit**

**Grades 10 -12**

**Prerequisite:** Successful completion of English 9/9 H or teacher recommendation

This course is designed as an elective for sophomore, junior and senior students interested in the development of their creative writing skills. It is not a remedial writing course; rather, it is designed to give all students the opportunity to write in the areas of fiction, nonfiction, poetry and lyrics.

## Public Speaking

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisites:** Successful completion of English 9/9 H or teacher recommendation

This semester course is an elective designed for sophomore, junior and senior students interested in the development of their public speaking skills. This course will be highly participatory in nature. Students will learn and develop skills in writing effective speeches and delivering them to various audiences. Students will gain practice with the different types of speeches (formal, informal, persuasive, informative, etc.). Students will learn the components, styles, and techniques involved in public speaking. There will be personal, peer and teacher evaluations with the goal that students will learn and gain confidence in the area of public speaking.

## English 9

**Full Year Course**      **1 Unit**

**Prerequisite:** English 8

This course is designed to build upon the fundamental skills in reading, writing and communication as well as to foster the skills necessary for becoming college and career ready. The Common Core Standards are the foundation of this course with specific emphasis on reading both literature and informational text. Through the writing process, students are exposed to all styles of writing including persuasive, informational, explanatory, and narrative writing while instruction is given on preliminary grade level research skills and language proficiencies. Students are expected to complete grade level reading and writing assignments outside of class, and they will be challenged to comprehend and analyze multiple complex texts throughout the year. Organization and a growing independence are necessary skills for the successful completion of this course. This course prepares students for the Common Core Regents Assessment to be given in 11th grade and culminates in a district final exam in June.

## English 9 H

**Full Year Course**      **1 Unit**

**Prerequisite:** English 8

This course emphasizes higher levels of reading, writing, and critical thinking. Literature is intensely studied through classroom discussion and analysis. Independent research projects and outside reading activities are an integral part of the course. Common Core Standards in English will be stressed with a central focus on creating college and career ready students. This course prepares students for the Common Core Regents Assessment to be given in 11th grade and culminates in a district final exam in June.

## **English 10**

### **Full Year Course      1 Unit**

**Prerequisite:** Successful completion of English 9/9 H

This course is designed to reinforce the developed skills in reading, writing, and communication taught in English 9 or 9 H. It continues to build upon the necessary skills for becoming college and career ready. The Common Core Standards continue to be the foundation for this course with further emphasis on reading classic literature, as well as more challenging and complex informational texts. Through the writing process, students will further develop skills in all types of writing, while instruction is given to reinforce previous grade level research skills and language proficiencies. Students are continually expected to complete grade-level reading and writing assignments outside of class, as they are challenged to comprehend and analyze multiple complex texts throughout the year. Organization, independence, and analytical thinking are expected skills for the successful completion of this course. This course prepares students for the New York State Common Core Regents Exam given in the 11th grade and culminates with a district final exam in June.

## **English 10 H**

### **Full Year Course      1 Unit**

**Prerequisite:** Successful completion of English 9/9 H or teacher recommendation

This course is designed to further develop the critical reading, writing and thinking skills taught in grade 9. Poems, novels, plays, short stories, and essays are analyzed critically. Vocabulary study, listening, speaking, and outside reading assignments are an important part of the course. Research and presentations are also required in this course. Common Core Standards in English will be stressed with the central focus on creating college and career ready students. This course prepares students for the New York State Common Core Regents exam given in 11th grade and culminates with a district final exam in June.

## **English 11 R**

### **Full Year Course      1 Unit**

**Prerequisite:** Successful completion of English 10/10 H

This course is designed to refine the skills previously developed in reading, writing and communication taught in English 9/9 H and 10/10 H. It continues to focus on preparing students to become college and career ready. The Common Core Standards for 11th grade are the basis of this course and further emphasis is on reading classic literature as well as challenging informational texts and complex non-fiction texts. The higher-level writing in this course further expands upon their maturing skills in persuasive, argumentative, informational, explanatory, and narrative writing while further practice is expected in grade level research skills and language proficiencies. Students are expected to complete grade level reading and writing assignments outside of class, and they will continue to be challenged to comprehend and analyze multiple complex texts throughout the year. Serious synthesis of text and mature writing are skills necessary for the successful completion of this course. This course culminates with the New York State Common Core Regents Exam in June.

## **English 11 H**

### **Full Year Course      1 Unit**

**Prerequisite:** Successful completion of English 10/10 H or teacher recommendation

This course is designed to refine critical reading, writing and thinking skills. It involves in-depth critical analysis of various genres of literature. Students are expected to respond critically to poetry, novels, plays, short stories, and essay through written assignments and class discussion. Substantial outside reading and vocabulary development are involved as well. Common Core Standards in English will be stressed with the central focus on creating college and career ready students. This course culminates with the New York State Common Core Regents Exam in June.

## **AP English Language and Composition**

**Full Year Course      1 Unit**  
**Grades 11-12**

**Prerequisites:** Successful Completion of English 10 H or 11 H or teacher recommendation

This specialized class offers students the opportunity to become highly efficient readers and writers. One half of this course will focus on the reading of prose and studying it for writer's purpose, craft and development of rhetoric. The other half of this course will concentrate on developing compositional and argumentative writing based on research. Students will examine what good writers do and try to emulate those skills in their work. This full year course culminates in the Advanced Placement exam of the same title. Juniors involved in this class will have the additional New York State Regents Assessment to take in June.

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

## **AP English Literature**

**Full Year Course      1 Unit**  
**Grade 12**

**Prerequisite:** Successful completion of English 11 H or teacher recommendation

The course is designed for students who have exhibited advanced skills in all facets of English and/or have been strongly recommended by their previous English teacher. The course's primary focus is literature based. Numerous written papers are required. The seminar approach is used to study literature ranging from the classical to the modern. Outside reading and one research project are required. The course will prepare students for the AP examination in English.

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

## **English 12**

**Full Year Course      1 Unit**

**Prerequisite:** Successful completion of English 11/11 H

This course is designed to polish skills in reading, writing and communication for strengthened college and career readiness. The Common Core Standards are the foundation of this course with greater stress on independent analysis and synthesis of complex texts. With a continued focus on the writing process, students are expected to display their knowledge of all types of writing with a strong emphasis on the senior research project. Focus, independence and appropriate use of language proficiencies are necessary skills for the successful completion of this course. English 12 culminates in a district final exam in June.

## **Exploring Humanities+**

**Full Year Course      1 Unit**  
**Grade 12**

**Prerequisite:** successful completion of English 11/11 H and/or teacher recommendation

This exciting alternative to English 12 is filled with hands-on opportunities such as field trips to museums, theaters and guest speakers. Students will be developing an appreciation for art, music, photography and all branches of human culture while learning research skills, literary analysis and the craft of writing effectively. If the student is looking for something different in an English course this is the one for him/her.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

+ Dual enrollment course

# Family & Consumer Sciences

Family and Consumer Sciences programs are caring, hands-on, relevant and diverse. They prepare all students to be competent, confident and caring in managing their personal, family and work lives. They provide education and training for related careers and teach valuable life skills. Students who choose to be Family and Consumer Sciences majors may waive the foreign language graduation requirement with a 5 unit sequence of Family and Consumer Sciences for the Regents with Advanced Designation Diploma.

## Half Year – ½ Unit Courses:

- Intro to Culinary Arts I
- Intro to Culinary Arts II

## Full Year – 1 Unit Courses

- Creative Design for Fashion and Home
- Developing Child+
- Diversified Cooperative Work Experience
- Food Science

## Food Science: The Biochemistry Of Food and Nutrition

**Full Year Course      1 Unit**  
**Grades 9-12**

Prerequisite: None

What turns cucumbers into pickles? Is it the mayonnaise or the tuna that makes tuna salad spoil in the sun? Using the scientific method, students will understand the science behind the foods they eat. Students need to complete 1200 minutes of lab time (30 labs). Covered topics include: laboratory experience, chemistry fundamentals, science of nutrition, chemistry of food, and microbiology of food processing.

*Note: Students may take this course as a third year of science.*

## Intro to Culinary Arts I

**Semester Course      ½ Unit**  
**Grades 9-12**

Prerequisite: None

Love to watch the Food Network, and test out the recipes in the kitchen? Then this is the course for you. Student cooking labs and teacher demonstration provide practical experience in helping students apply nutrition knowledge, food safety and sanitation to everyday living; develop skills in menu planning, food purchasing, preparation and service. Some of the foods prepared and concepts taught include; quick breads, cookies, fruits, vegetables, milk products and meats. Students will also explore careers and employment opportunities in the field of Hospitality Management.

## Intro to Culinary Arts II

**Semester Course      ½ Unit**  
**Grades 9-12**

Prerequisite: Intro to Culinary Arts I

Cooking takes on a creative flair in this advanced course which focuses on preparation techniques, appearance and presentation of foods. The cooking labs and teacher demonstration explore foods such as soups and salads, breads, pizza, pies, cake decorating and appetizers. Student lab experience is a major portion of this course.

## Creative Design for Fashion and Home

**Full Year Course      1 Unit**  
**Grades 9-12**

House Hunters, Flip or Flop, are you addicted to HGTV, or hot for Project Runway. Do you have aspirations to work on the Fashion Runway? Do you love to decorate your space? Are you going to live with your family for the rest of your life? Is it difficult to find clothes you like or that fit? The course will explore how culture and environment influences design in relation to the past, present and future. Through hands on experiences students will apply design elements and principles while creating fashions and home décor. Students will manage a household budget with hands-on creative projects. Students will create hands on projects and learn basic sewing skills.

*Note: All students may use this course to satisfy the required one unit of Art/Music credit for graduation.*

## The Developing Child+

**Full Year Course**      **1 Unit**  
**Grades 10-12**

Prerequisite: None

"TLC - touching, loving, caring." These are just a few of the elements essential in rearing children, a life-long responsibility, taking a great deal of time and energy. This course helps students, male and female, to understand the role of educators/parents/caregivers and the development of children and their care- prenatal to school age. The course covers the ages and stages of development including; physical, cognitive, social/emotional, communicative and creative. The course is designed to develop skills and philosophies in caring for and teaching children; including arranging safe and healthy learning environments. Students will have hands on learning experiences in a simulated pregnancy and caring for REAL CARE BABY. Field trip opportunities may include: preschool and day care observation, Strong Museum of Play, and Childcare Council. In addition students will practice lesson planning, assessment techniques and the value and importance of play in children's lives. The course includes care of children with special needs, the teacher's role and developing an anti-bias outlook through the eyes of a student, teacher and family members. This is a year long class offered as a dual enrollment - students have the opportunity to earn 6 college credits.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Diversified Cooperative Work Experience

**Full Year Course**  
**Grade 12**

Prerequisite: Teacher-Coordinator Permission

175 hours = ½ unit      350 hours = 1 unit

Diversified Cooperative Work Experience is a New York State approved Work Experience Program geared towards seniors and affords participants with a chance to experience "first hand," a career specific employment opportunity. With this, students are able to utilize many of the concepts, procedures, and skills that they have developed throughout their educational and personal experiences. This opportunity offers the student a paid position with experiential learning. The process is designed to allow students to explore and analyze their future aspirations while making connections to their educational experiences and personal interests. In addition to classroom instruction, the teacher-coordinator will provide on-site supervision.

## Career & Technical Education Courses

### Academy of Early Childhood Education - 5 credits

#### Mandatory 3 Credits

Careers and Financial Management+	(.5)
The Developing Child+	(1)
Entrepreneurship/E-Commerce+	(.5)
Advanced Health	(.5)
Psychology	(.5)

#### Mandatory 1 Credit Courses

Business Management & Marketing+	(1)
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#### Mandatory 1 Credit

Work Based Learning (Co-op, 3 Job Shadows, or Internship)	(1)
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#### Assessments

NOCTI Early Childhood Care and Education  
Final Project and Presentation

### Why take a CTE in Early Childhood?

Upon completion of the HS program, students will easily be able to complete the requirements for a Child Development Associate (CDA) License through a college program or the Child Care Council of Rochester. The license is required for people desiring to own an in home day care. The CTE in Early Childhood is also advantageous for careers in medicine, psychology, and teaching. The program will prepare students to be future parents.

+ Dual enrollment course



# Health

## Advanced Topics in Health

**Semester Course**      **½ Unit**  
**Grades 11-12**

**Prerequisite:** Health Education

The student who elects to enroll in Advanced Topics in Health is one who has a continued interest in health studies. If you enjoy the adventure of exploring and discussing health related topics, this is the course for you. There are many new topics that are explored, as well as a further investigation into the basics of Health class topics. Topics will include: Healthy meal planning, life-long exercising, personal health issues, and drug prevention.

Students taking this class can expect to learn through activities. Be prepared to teach a lesson, design a bulletin board, debate a controversial issue and plan health week among many other activities. Students can also expect a field experience promoting health and wellness.

Plan on increasing your knowledge of health, gaining a new level of wellness and developing intrapersonal skills by working with various members!

## First Aid

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisite:** None

Are you interested in the medical field? Would you know how to give rescue breathing, CPR, or control severe bleeding? Would you know the symptoms and dangers of heat exhaustion or hypothermia? Would you know what to do for a person who is having a seizure, a stroke, or a heart attack? This course teaches first aid skills a person needs to know to act as the first link in the emergency medical system. The focus of this course is to prepare the individual to respond correctly to everyday emergencies.

Students will learn First Aid, and CPR skills. Those who successfully complete the course may receive several American Red Cross certifications (Responding to Emergency and/or Community First Aid; and/or CPR/AED for the Professional Rescuer).

A field trip to a local ambulance & fire department may be included. Students will talk with professionals, tour the facilities, participate in hands-on activities as well as explore potential career opportunities.

## Health Education

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisite:** None

This course is a graduation requirement, and deals with the topics of Mental Health (personality development, self-esteem, communication skills and self-evaluation, grief, stress, conflict resolution and anger control, values - goals - and decision making skills, and health advocacy); CPR where all students are given the opportunity to become CPR certified by the American Red Cross; Drug Education (terminology, tobacco, alcohol, marijuana, cocaine, hallucinogens, dependence and its effect on the family); Family Life Science (physiological, psychological, and social growth and concerns in self and others). Other units include nutrition, parenting, safety and disaster survival.

Participation, reading assignments and a Service learning project is required.

## Life and Death+

**Semester Course**      **½ Unit**  
**Grades 11-12**

**Prerequisite:** Health Education

This course is designed to help the individual learn to cope with life's experiences. Topics include: understanding self and others (minimizing stress, assertiveness skills, time management, relationships, and life goals). One of the main topics explored is death - something everyone must face throughout a lifetime. In this unit we will cover: attitudes about death, talking to children about death - the do's and don'ts; medical ethics; terminal illness - some guidelines for coping; suicide - the symptoms and do's and don'ts; funerals - what to say and do, and the grief process - what to expect in self and others.

Field trip to local funeral home and cemeteries may be included. The individual must be willing to become **actively involved** in class activities and projects.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Peer Leadership I+

**Semester Course**      **½ Unit**  
**Grades 11-12**

**Prerequisite:** Health Education

Peer Leadership is a program designed to help students build leadership skills for personal and professional growth. Students will learn how to take an idea, put it into a proposal, and implement it into reality. They will learn how to be Peer Helpers in assisting others with difficult situations. This activity-oriented course will train students in topics such as self-esteem, communication skills, and group dynamics. The course will also address specific adolescent concerns such as drug awareness, divorce, relationships, anger management and conflict resolution. Activities these students may become involved in include school enhancement projects, elementary school volunteer work, group presentations to elementary school classes, or other community enhancement projects.

Students will be required to complete 75 hours of services (i.e. 9th grade orientation, weekly individual placement and group service projects). Students are expected to be role models and follow an ethics contract. To be accepted in to the volunteer component, a teacher recommendation is needed.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Peer Leadership II+

**Semester Course**      **½ Unit**  
**Grades 11-12**

**Prerequisite:** Peer Leadership

This course is designed to meet the needs of the student interested in pursuing a career in helping professions such as teaching, nursing, psychology, physical therapy, or other human service fields. The student will be required to spend a minimum of 90 hours in a Service Learning placement and one hour a week in class time. (135 hours to fulfill dual enrollment requirements). Content will include lesson planning, professionalism, career research, conflict management, time management, as well as other topics and "on-the-job" training.

Students are expected to be responsible, mature, and committed and must be able to work independently. Students must follow an ethics three-strike contract and be positive role models.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Foundations of Health and Wellness+

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisite:** None

This course focuses on personal responsibility for your health and how lifestyle factors and choices reflect well being. More specifically, topics include nutrition, physical activity, communication skills, drug abuse, managing stress, and disease. This dual credit class is the foundation of many Health Science majors.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

# Languages Other Than English

## French II

**Full Year Course**      **1 Unit**  
**Grades 9-12**

**Prerequisite:** French I or French IB

Emphasis will continue on the communicative approach. Students will learn how to deal with experiences such as: Traveling, excursions, shopping, visits to the doctor or hospital, movies, entertainment, weekend activities, social events. The cultural themes are authentically presented and they are visually attractive. Students participate in all classroom activities from short dialogues to pattern and vocabulary rehearsals. Basic sentences and reading passages are useful in establishing written language structures.

## French III

**Full Year Course**      **1 Unit**  
**Grades 10-12**

**Prerequisite:** French II

Emphasis is given on conversation for everyday life experiences. The communicative approach will continue to be used. The students will study and learn various language structures, involving further study of topics discussed in levels I and II on a more sophisticated level of self-expression. The students will prepare to take the French Comprehensive Regents Equivalency Examination at the end of the school year. Mastery of grammar and syntax is a key element in this level.

## French IV H+

**Full Year Course**      **1 Unit**  
**Grades 11-12**

**Prerequisite:** French III

Students will complete a broad range of activities including poetry, drama, philosophy, art and music in order to expand their overall knowledge and understanding of French speaking cultures throughout the world. The reading will include a classic novel and contemporary selections. They will study complex grammar structures and concepts. Students will also have the opportunity to experience French cuisine and debate current issues of interest to the students.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## French V H+

**Full Year Course**      **1 Unit**  
**Grade 12**

**Prerequisite:** French IV H+

Students who enroll in French V H should already have a good command of French grammar and vocabulary and have competence in listening, reading, speaking, and writing. The course will emphasize the use of language for active communications and help students develop the ability to understand spoken French in various contexts; a French vocabulary sufficiently ample for reading newspaper and magazine articles, literary texts, and other non-technical writings without dependence on a dictionary; and the ability to express themselves coherently, resourcefully, and with reasonable fluency and accuracy in both written and spoken French. The course content will reflect intellectual interests shared by the students and teacher (the arts, current events, literature, sports, etc.). Materials might well include audio and video recordings, films, newspapers, and magazines. The course seeks to develop language skills (reading, writing, listening, and speaking) that can be used in various activities and disciplines rather than to cover any specific body of subject matter. Extensive training in the organization and writing of compositions will also be emphasized.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Italian II

**Full Year Course**      **1 Unit**  
**Grades 9-12**

**Prerequisite:** Italian I or IB

The basic communication skills will continue to be developed. Major topics of discussion are: Daily routines, recreation, planning a trip, the educational system, sports, music, relationships, family, friends, technology, environmental concerns, help wanted ads, newspaper articles. The repetitiveness of basic expression associated with cultural content is the performance base of language learning, with emphasis being placed on effective communication.

## Italian III

**Full Year Course**      **1 Unit**  
**Grades 10-12**

**Prerequisite:** Italian II

Students will continue to increase communication skills to prepare for the Comprehensive Regents Equivalency Examination. Major topics to be covered include physical environment, daily routines, health and welfare, geography, music, cultural events, family relationships, public services, government, and many of the previously studied topics with more complex and detailed information.

## **Italian IV H+**

**Full Year Course      1 Unit**  
**Grades 11-12**

**Prerequisite:** Italian III

The communicative skills will continue to be expanded. Students will refine these skills by studying complex grammar structures. Contemporary and classic literary selections will be read, analyzed and discussed. Students will complete a broad range of activities, including poetry, drama, art and music. Current issues will be discussed in Italian, and students will have the opportunity to experience Italian dishes.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## **Italian V H+**

**Full Year Course      1 Unit**  
**Grade 12**

**Prerequisite:** Italian IV H+

The course will be based on developing reading, writing, listening and speaking skills within a cultural frame of reference reflective of the richness of Italian language and culture. The study of the Italian language system will focus on the structural aspects of the language while at the same time interweaving cultural knowledge throughout the course. The Italian V H language and culture course will help to prepare students to demonstrate their level of Italian proficiency across the three communicative modes (interpersonal, interpretive, and presentational), and throughout the five goals of the Standards (communication, cultures, connections, comparisons & communities).

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## **Latin II**

**Full Year Course      1 Unit**  
**Grades 9-12**

**Prerequisite:** Latin I or IB

This course is designed for those students who have successfully completed Latin I or IB. The student will be enriched by an infusion of the Latin curriculum into such diverse subjects as English, history, science, etc. Latin literature will be translated and compared to English literature. Therefore, a more rigorous approach to grammar and syntax will be emphasized. A continued study of Roman daily life will bring the student on an exciting journey into the world of gladiators, charioteers, and mythological heroes. Art and architecture will be brought to life, as they will be introduced throughout the course to augment the student's vision of both the past and present human condition.

## **Latin III**

**Full Year Course      1 Unit**  
**Grades 10-12**

**Prerequisite:** Latin II

Emphasis will be on the Latin syntax as presented in readings about Roman heroes, both legendary and historical, while the student further delves into the ancient world. A review of previously studied aspects of Latin culture, mythology, government, as well as an introduction to new concepts, will be studied.

## **Latin IV H+**

**Full Year Course      1 Unit**  
**Grades 11-12**

**Prerequisite:** Latin III

This course is designed to introduce the student to post-classical Latin. Selected readings (adapted) will be the focus of our work. Erasmus, Einhard, Thomas More and Vergil, to name a few authors, will transport the student to the Medieval and Renaissance periods. A review of previously studied aspects of Latin grammar, as well as an introduction to new concepts will be studied.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## **Spanish I**

**Full Year Course      1 Unit**  
**Grades 9-12**

This course is for students just beginning the study of Spanish or for those students who have not yet earned one high school credit in LOTE to fulfill the New York State graduation requirement. In this course students will communicate on everyday topics and occurrences by listening, speaking, writing and reading in Spanish, as well as learn about the various Hispanic cultures.

## **Spanish II**

**Full year course      1 Unit**  
**Grades 9-12**

**Prerequisite:** Spanish I or IB

This course is for students who have successfully completed courses Ia and Ib, or Spanish I R. Students will continue to develop and expand upon the topics and language skills covered in level I. Students will increase their knowledge of the language by covering such topics as personal identification, daily routine, family and friends, community, cities and towns, physical well being, daily activities, memories of childhood, and meal taking.

+ Dual enrollment course

## **Spanish III**

**Full Year Course      1 Unit**  
**Grades 10-12**

**Prerequisite:** Spanish II

Emphasis will be on the functional use of the language for communicative proficiency in everyday real life situations and on preparation for the Comprehensive Regents Equivalency Examination. Major topics include: summer and free time activities, relationships among family and friends, art and music, current events, community, professions, and shopping. Along with additional new topics, students expand their knowledge on topics previously studied and they will increase their knowledge of Spain and Latin America.

## **Spanish IV H+**

**Full Year Course      1 Unit**  
**Grades 11-12**

**Prerequisite:** Spanish III

In this course students will expand and build on the vocabulary topics studied in previous years. The focus will be on increasing and refining the use of the various structural topics of the Spanish language at a level comparable to that of a beginning/intermediate college course. Additional cultural aspects the Hispanic world as well as current events will be explored through authentic resources such as music, art & movies. There will be an emphasis on listening, speaking, reading, and writing in the Spanish language at an increased level of proficiency and fluency.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## **Spanish V H+**

**Full Year Course      1 Unit**  
**Grade 12**

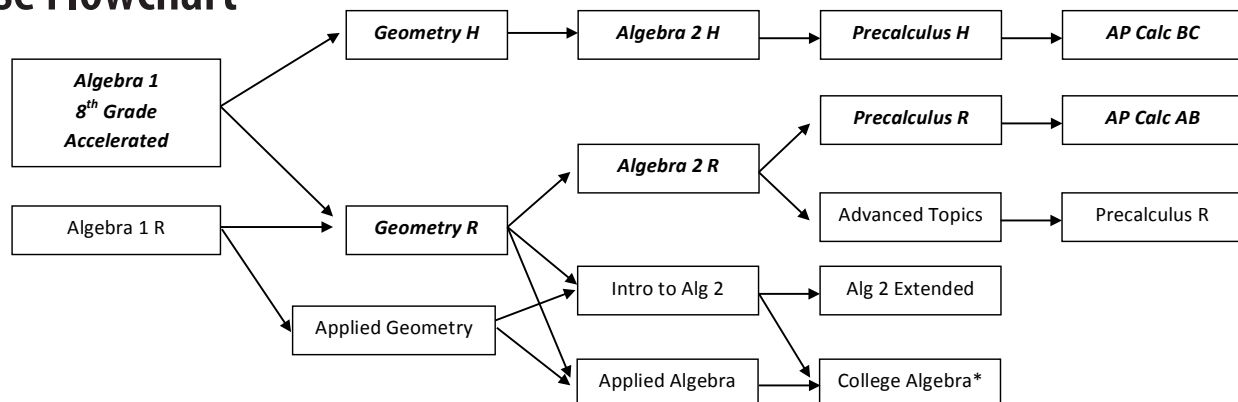
**Prerequisite:** Spanish IV H+

This course will continue to build on the topics studied in Spanish IVH+. There will be an emphasis on the use of language for active communication while further developing the ability to understand spoken Spanish in various contexts. Students will continue to increase and refine the use of the more complex grammatical structures of the Spanish language at a level comparable to that of a beginning/intermediate college course. Additionally, students will continue to build a Spanish vocabulary sufficient for comprehending authentic resources such as newspaper and magazine articles, literary texts, music and movies. The goal is for students to express themselves coherently, resourcefully and with reasonable fluency and accuracy in both written and spoken Spanish.

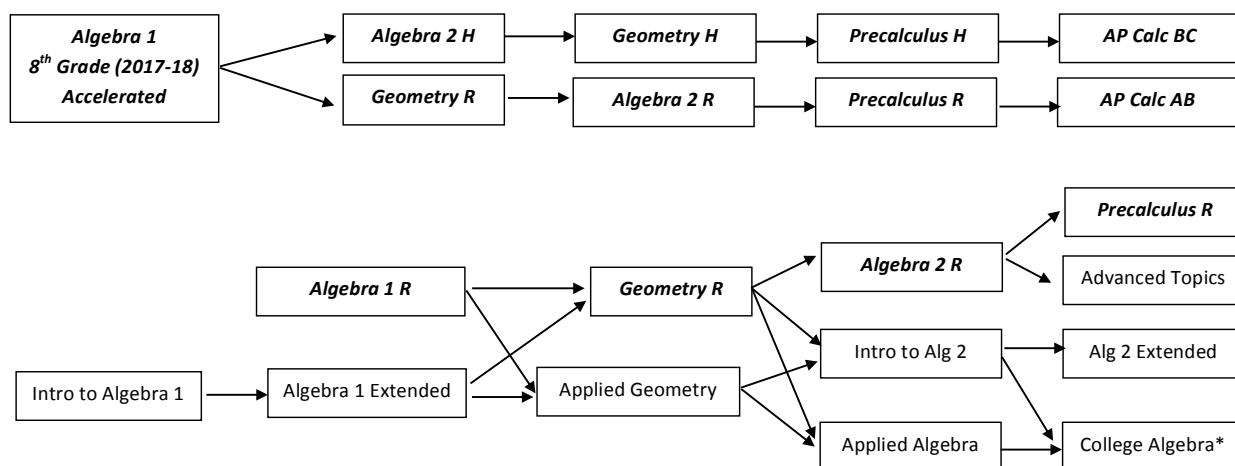
*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

# Math

## Course Flowchart



## Course Flowcharts for incoming 9th graders only



All courses in mathematics enable a student to pursue a background in STEM (Science, Technology, Engineering, & Mathematics).

In general, the higher the level of mathematics achieved, the more opportunities available within STEM majors and careers.

The current measure of "College & Career Ready" in mathematics references at least an 80% on the Algebra 1 Regents.

An Advanced Designation Diploma requires passing all 3 NYS Regents Exams in Math (Algebra 1, Geometry, & Algebra 2).

### Additional Electives:

Intro to Computer Science may be taken after completing Algebra 1. Java may be taken after completing Geometry.

AP Statistics may be taken any time after completing Algebra 2.

## Algebra 1 R

**Full Year Course      1 Unit**

**Prerequisite:** None

This is the first in a sequence of three Regents level courses designed to meet the New York State Common Core Learning Standards in Mathematics. Students will prepare for the Algebra 1 Assessment, which is required for graduation and will be taken in June of their freshman year. Topics in this course include: set and function notation, algebra, systems of linear equations and inequalities, Coordinate geometry, polynomial operations, factoring, quadratics, conditional probability, statistics, and regression. A graphing calculator is required for the exam and recommended for the course.

## **Intro to Algebra 1 R**

**Full Year Course      1 Unit**

**Prerequisite:** Department Approval

This course allows for extended time for students who experienced difficulty in Middle School math classes and need additional preparation before taking Algebra 1 Extended and the Common Core Algebra 1 Regents examination in January of their sophomore year. Topics in this course include: prealgebra skills, set and function notation, algebra, systems of linear equations and inequalities, and coordinate geometry. Graphing calculators will be used to illustrate concepts and are available for use in the classroom.

## **Geometry H**

**Full Year Course      1 Unit**

**Prerequisite:** Algebra 1 R with Department Approval

This course is designed for the outstanding math student who is capable of learning topics at a much quicker pace. The units of study include: transformational geometry, analytical and Euclidean geometry (including proof), coordinate geometry, quadrilaterals, solid geometry, right triangle trigonometry, and construction. An independent study project in mathematics is required. This course culminates with the June Common Core Geometry Regents examination, the second of three required exams for the Advanced Regents Diploma. Graphing calculators and dynamic geometry software will be utilized in this class.

## **Geometry R**

**Full Year Course      1 Unit**

**Prerequisite:** Successful completion of Algebra 1R with a minimum course average of 70% and a passing Regents final exam score.

This is the second in a sequence of three Regents level courses designed to meet the New York State Common Core Learning Standards in Mathematics. The units of study include: transformational geometry, analytical and Euclidean geometry (including proof), coordinate geometry, quadrilaterals, solid geometry, right triangle trigonometry, and construction. This course culminates with the June Common Core Geometry Regents examination, the second of three required exams for the Advanced Regents Diploma. Graphing calculators and dynamic geometry software will be utilized in this class.

## **Applied Geometry**

**Full Year Course      1 Unit**

**Prerequisite:** Algebra 1 R with Department Approval

This is an applied mathematics class that uses "hands-on" activities to teach geometry concepts. Topics that students will explore include perimeter, area, volume, similar figures, transformations, constructions, right triangle trigonometry and applications, quadrilaterals, polygons, coordinate geometry, triangle congruence and conic sections.

## **Introduction to Algebra 2**

**Full Year Course      1 Unit**

**Prerequisite:** Geometry R or Applied Geometry

This course allows for extended time for students who experienced difficulty in Algebra 1 or Geometry, and need additional preparation before taking Algebra 2 Extended and the Common Core Algebra 2 Regents examination. Topics in this course include algebra of real numbers, relations and functions, trigonometry, imaginary numbers, and statistics. A graphing calculator is used in class.

## **Algebra 2 H**

**Full Year Course      1 Unit**

**Prerequisite:** Geometry H or Algebra 1 (Grade 8) with Department Approval

This course is designed for the outstanding math student who is capable of learning topics at a much quicker pace. The units of study include: algebra of polynomials, rational functions, the complex number system, trigonometric functions and identities, transcendental functions, and inferential statistics. An independent study project in mathematics is required. Students will complete their mathematics requirement for a New York State Advanced Regents Diploma by taking the Common Core Algebra 2 Regents examination in June. Graphing calculators will be used to illustrate concepts and are strongly recommended due to the examination requirements.

## **Applied Algebra**

**Full Year Course      1 Unit**

**Prerequisite:** Geometry R with Department Approval or Applied Geometry

This course maintains mathematical skills and emphasizes problem solving applications of mathematics in the real world. Various STEM modules will be implemented and skills necessary for passing the Accuplacer will be reviewed. Topics include linear and quadratic equations, solving systems of equations, introduction to algebraic fractions (up to add/subtract with like denominators), exponents and radicals, graphing techniques, absolute value equations, and polynomials. A scientific calculator will be required and a graphing calculator is recommended.

## **College Algebra+**

**Full Year Course      1 Unit**

**Prerequisite:** Intro to Algebra 2 or Applied Algebra

This course extends the mathematical skills and applications of mathematics in the real world. It is intended for seniors who anticipate having to take and pass a math placement exam for college admission. Topics include 1st degree inequalities, functions, linear equations, solving systems of equations and inequalities, introduction to matrices, polynomials, algebraic fractions, variation, rational exponents and radical equations, absolute value inequalities, complex numbers, exponential functions, and quadratic equations. Problem solving and applications are emphasized throughout the course. A graphing calculator will be used to illustrate concepts.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## **Algebra 2 R**

**Full Year Course      1 Unit**

**Prerequisite:** Successful completion of Geometry R with a minimum course average of 75% and a passing Regents final exam score.

This is the third in a sequence of three Regents level courses designed to meet the New York State Common Core Learning Standards in Mathematics. Students will prepare for the Algebra 2 Regents examination, which is required for a New York State Advanced Regents Diploma and will be taken in June. The units of study include: algebra of polynomials, rational functions, the complex number system, trigonometric functions and identities, transcendental functions, and inferential statistics. Graphing calculators will be used to illustrate concepts and are strongly recommended due to the examination requirements.

## **Algebra 2 R Extended**

**Full Year Course      1 Unit**

**Prerequisite:** Intro to Algebra 2

This course will complete the preparation and coverage of topics required for the Common Core Algebra 2 Regents examination. Topics in this course include polynomials, exponential and logarithmic functions, conditional probability, and the fundamental theorem of algebra. A graphing calculator is used in class.

## **Precalculus H**

**Full Year Course      1 Unit**

**Prerequisite:** Trigonometry H or Department Approval

This course is designed for the outstanding math student. The units of study include: proof by induction, polynomial functions; rational and explicit algebraic functions; transcendental functions; analytic geometry; matrices and simultaneous equations; sequences and series; limits; the derivative and applications of the derivative. An independent study project in mathematics is required. Students successfully completing this course are eligible for AP Calculus AB or AP Calculus BC. Graphing calculators will be used to illustrate concepts and are strongly recommended.

## **Advanced Topics In Mathematics**

**Full Year Course      1 Unit**

**Prerequisite:** Algebra 2 R or Algebra 2 R Extended

This course extends those topics which were first encountered in the NYS Regents curriculum over the past 3 years. Advanced topics are included from the algebra of real and complex numbers, analytic geometry, polynomials, rational and algebraic functions, and transformations. In addition, new topics like systems of equations, matrices, and linear programming, along with various real world applications are introduced. Graphing calculators will be used to illustrate concepts and are recommended.

## **Precalculus R**

**Full Year Course      1 Unit**

**Prerequisite:** Successful completion of Algebra 2 R with a minimum course average of 80% and a passing Regents final exam score.

This course is designed for the highly competent math student who intends to pursue Calculus the following year. The units of study include: polynomial functions; rational and explicit algebraic functions; trigonometry; transcendental functions and analytic geometry. Students successfully completing this course are eligible for AP Calculus AB. Graphing calculators will be used to illustrate concepts and are strongly recommended.

## **AP Calculus AB**

**Full Year Course      1 Unit**

**Prerequisite:** Precalculus R

Designed to prepare a student for the AB Advanced Placement examination given in May. Includes topics of differential and integral calculus. Requires use of graphing calculator.

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*



## **AP Calculus BC**

**Full Year Course      1 Unit**

**Prerequisite:** Precalculus H or Department Approval

Designed to prepare a student for the BC Advanced Placement examination given in May. Includes all the topics of Calculus AB plus: differential equations, sequences and series, and polar coordinates. Requires use of graphing calculator.

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

## **AP Statistics**

**Full Year Course      1 Unit**

**Prerequisite:** Algebra 2 R

A full year course, offering the equivalent of an introductory level college statistics course. The purpose of the course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Topics studied will include recognizing and analyzing patterns in data, techniques of collecting data, randomness and probability distributions, and statistical inference. Students may elect to take the advanced placement examination offered in May. This course requires the use of a graphing calculator.

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

# Computer Electives

## **JAVA**

**Full Year Course      1 Unit**

**Prerequisite:** Geometry R with Department Approval

This is an introductory course to computer programming that requires no prior use of any programming language. The student enrolled in this course will learn the following concepts: basic computer science concepts, the Java development environment, object oriented design, primitive data types, how to write basic Java applications, using arrays and arraylists for data structures, sorting techniques, abstract data types, inheritance, super classes and subclasses. A group project will be required.

## **AP Computer Science**

**Full Year Course      1 Unit**

**Prerequisite:** Java

This course will include a review of all topics from Java and also include these additional topics: exception handling, streams and file input and output, dynamic data structures, recursion, and window interfaces using swing objects. Students may elect to take the advanced placement examination offered in May.

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

## **Introduction to Computer Science**

**Full Year Course      1 Unit**

**Prerequisite:** Algebra 1 R

This is an introductory course in computer programming that assumes no prior use of any programming language. The student enrolled in this course will use Javascript to learn the following: object oriented design, calculating with user-defined variables, various decision structures, simple animation and sound techniques, creating data files, working with strings and arrays, and basic looping structures. Several projects will be required.

# Music

Music has ties to every human endeavor and contributes to our daily well-being throughout our lives. It marks the special events and adds a special dimension to the quality of our lives that cannot be obtained from any other source.

The goal of the high school music program is to provide students with a broad foundation of musical knowledge, coupled with a high level of academic performance skills. The music course offerings are designed to fulfill the needs of all students with an interest in music. The music program in the high school builds sequentially on the music program in the middle school and provides the foundation for lifelong participation in and enjoyment of music. Instructional activities are directed toward achieving the National Standards for the Arts.

Every music course, including performance courses, provides experiences in creating, performing, listening to, and analyzing music, in addition to focusing on its specific subject matter. Also included are learning experiences designed to develop the ability to read music, use the notation and terminology of music, describe music, make informed evaluations concerning music, and understand music and music practices in relation to history and culture and to other disciplines in the high school curriculum.

## Full Year Course Offerings

- Band 9-10
- Band 11-12
- Mixed Chorus
- Advanced Women's Choir
- Concert Choir
- Music Theory

*Students may enroll in both band and chorus in the same year for ½ credit each.*

## Half Year Course Offerings

- Piano I
- Piano II
- Studio Production in Music I
- Studio Production in Music II

*Students may use a 5-unit sequence in music to replace the 3 required units of foreign language for the Regents with Advanced Designation Diploma.*

*The 5-unit sequence in music can only be fulfilled with Music Theory. The typical five unit sequence is four credits of a performing group (Band/Chorus) and one credit of Music Theory.*

## Advanced Women's Choir

**Full Year Course      1 Unit**  
**Grades 10-12**

**Prerequisite:** Successful completion of one unit of Chorus and Teacher Recommendation after audition.

The music to be studied and performed will require advanced singing and music reading skills and will be selected from appropriate treble voice choral literature. Students will have opportunities for small group and individual instruction that will supplement regular Advanced Women's Choir classes. All opportunities listed for Mixed Chorus are available to students registered for Advanced Choir classes. Students in the choral music program are encouraged to participate in solo evaluation festivals, in All-County, and in All-State music groups.

## Band

**Full Year Course      1 Unit**  
**Grades 9-12**

**Prerequisite:** NYSSMA Level 3 or higher on a band Instrument or Teacher Recommendation after Audition

Students rehearse in an ensemble setting daily and are required to attend a weekly lesson. Students participate in evening concerts, school assembly programs, and perform for the students in our elementary schools. All band members will participate as a marching band at home football games, and other field band performances, and pep rallies. The Marching Band also participates in the Memorial Day parade as well as several other parades. Students may participate in solo festivals, which are prerequisites for selection to All-County, Area All-State and Conference All-State Bands. Students are invited to participate in school co-curricular activities such as Jazz Band, and may be invited to play in the Annual Musical. The High School Band program is divided into two ensembles. The Concert Band (grades 9-10) rehearses separately from the Wind Symphony Grades 11-12. The two ensembles perform together as one group for marching season. They perform separately for Concert season.

In preparation for Marching Band, there is a "Band Camp." All students are required to attend Band Camp, which is run in the high school band room and adjoining practice fields during the week before Labor Day. Personal schedules for work and vacation should be adjusted so that all band students can attend Band Camp. The Band and Chorus directors arrange rehearsal time so those instrumentalists who wish to participate in both activities, are able to participate in both the Band and Chorus.

## Concert Choir

**Full Year Course      1 Unit**  
**Grades 10-12**

**Prerequisite:** Successful completion of one unit of Mixed Chorus or Teacher Recommendation after audition

The music to be studied and performed will require advanced singing and music reading skills and will be selected from appropriate mixed voice choral literature. Students will have opportunities for small group and individual instruction that will supplement regular Concert Choir classes. All opportunities listed for Mixed Chorus are available to students registered for Concert Choir. Students in the choral music program are encouraged to participate in solo evaluation festivals, in All-County, and in All-State music groups. Band and Chorus directors arrange rehearsal time so those instrumentalists are able to participate in both Band and Chorus.

## Mixed Chorus

**Full Year Course**      **1 Unit**  
**Grades 9-12**

**Prerequisite:** None

The choral music program involves active participation in the study of music of different styles and from different periods in the history of music. Opportunities are provided throughout the day and after school for individual and small group instruction that supplements the class session. Musical literacy, the reading of and the interpretation of music, is of primary importance in the choral music program. This course is designed for students with little or no choral experience. Students in the choral music program are encouraged to participate in solo evaluation festivals, in All-County, and in All-State music groups. Band and Chorus directors arrange rehearsal times so that instrumentalists are able to participate in both Band and Chorus.

## Piano Class

Students will learn to read music, play with both hands, and play and harmonize simple melodies. This class is for anyone who has ever wanted to learn to play piano. Piano class is taught in two sequential courses. There are no prerequisites for registration in Piano Class I. Successful completion of Piano Class I or teacher approval is a prerequisite for Piano Class II. Students registering for Piano Class I and II bring a wide variety of experience. Though designed for beginner students, modifications may be made for students that have had some piano experience or lessons to meet their needs as well. Upon successful completion of Piano I and II, students will have the necessary skills to pursue music as an avocation. Those students planning a career in music will have acquired skills that will be helpful to them regardless of their area of musical study.

### Piano I

**Semester Course**      **½ Unit**  
**Grades 9-12**

**Prerequisite:** None

### Piano II

**Semester Course**      **½ Unit**  
**Grades 9-12**

**Prerequisite:** Piano I or Teacher Recommendation after Audition

## Music Theory

Music Theory is taught in one sequential course. Prerequisite for registration in Music Theory is successful completion of at least one unit of Band, Chorus, Music Keyboarding, Music Technology, or teacher recommendation. It is assumed that students registering for Music Theory will have basic music reading skills and familiarity with a variety of musical styles before taking this course. Basic keyboard experience, while helpful, is not a prerequisite for Music Theory.

(Music Theory Continued)

The study of music theory includes ear training as well as written and keyboard exercises. The ear training portion of the class includes harmonic and melodic dictation, sight-singing, rhythmic dictation and other listening exercises. The basics of music are covered, including the principles of notation, staff, clefs, notes, rests, whole and half steps, and music terminology. Rhythm and meter are studied and includes tempo markings, time signatures, dictation, triplets, syncopation, and asymmetric meters. Theory class also includes the study of major and minor scales, keys, modes, intervals, chord progressions, triads with and without inversions, seventh chords with and without inversions, transposition, harmonization, non-harmonic tones, melody, figured bass, 4-part writing, cadences, instrumentation, chord function, and music history as it relates to theory.

Several music compositions are assigned to apply theory concepts, including a rhythmic based composition, a lyric based composition, and an orchestration composition. Computer software is utilized not only for notation of compositions and realization of compositions, but also for drill and practice.

## Music Theory

*(Offered every other year opposite Music Tech I & II – even years starting with 2018)*

**Full Year Course**      **1 Unit**  
**Grades 10-12**

**Prerequisite:** One year of Band or Chorus or Teacher Recommendation

## Studio Production in Music

Studio Production in Music is taught in two sequential courses. Students will be introduced to the study of Studio Production and the fundamentals of music through this project oriented class. Areas of instruction include an overview of historical events that have shaped Studio Production today. Students will also create their own music through the use of music software, hardware, and other music based technology. They will acquire basic music literacy skills and be able to apply them to compositions. Students will explore possible Music Production careers, and be introduced to the key concepts and terminology of Studio Production.

### Studio Production in Music I

*(Offered every other year opposite Music Theory – odd years starting with 2019)*

**Semester Course**      **½ Unit**  
**Grades 9-12**

**Prerequisite:** None

### Studio Production in Music II

*(Offered every other year opposite Music Theory – odd years starting with 2019)*

**Semester Course**      **½ Unit**  
**Grades 9-12**

**Prerequisite:** Studio Production in Music I

# Physical Education

Physical Education is a mandated course for all students in public school in the State of New York and is a requirement for graduation from Gates Chili High School. Students receive ½ credit per year for the successful completion of Physical Education, for a total of two credits upon graduation.

## Physical Education 9-12

Physical Education at Gates Chili High School is based upon the following goals: acquiring the knowledge to develop and maintain an optimal level of personal fitness; developing a higher level of competence in skills and knowledge of movement and sport; developing and maintaining a positive attitude toward fitness, movement and sport. The Physical Education curriculum is based on a selective program whereby students may choose from a number of activities in order to meet our program goals. Each student must take the FITNESSGRAM and participate in dance and aquatics.

All students will participate in the FITNESSGRAM in the fall semester and again in the spring semester. FITNESSGRAM is a complete battery of health-related fitness items that are scored using criterion-referenced standards. FITNESSGRAM is also a report card that summarizes the student's performance on each component of health-related fitness.

All students will also participate in a week-long dance unit that will feature square dancing and line dancing.

## Aquatics Program

All 9th & 10th grade classes will participate in an instructional swimming program.

All 11th & 12th grade classes will participate in a water sports program. This program will consist of: water polo, water basketball, kayaking, snorkeling and water aerobics.

## Selective Activities Available:

### Lifetime Activities:

Tennis, Biking, Personal Living Skills, Fitness/Wellness Training, Recreational Games Unit, Aerobics, Indoor Racquet Games

### Team Sports:

Basketball, Flag Football, Soccer, Lacrosse, Volleyball, Floor Hockey, Softball

### Introduction to Sports Medicine

*(Offered even years starting 2018)*

### Semester Course ½ Unit Grades 10-12

This course is designed to give students an introduction to Sports Medicine. The purpose is to teach students interested in health related careers fundamentals skills and knowledge.

### Course Objectives

- Teach names, structures, and functions of skin, muscles, and bones
- Teach injury prevention and recognition along with possible treatments and rehabilitation
- Teach basic concepts in nutrition and weight control
- Teach preventative taping skills
- Teach career education

### Internship Possibilities

- Local Sports Teams (Rhinos/Amerks, etc.)
- Local Physical Therapists
- Local Occupational Therapists
- Local Physicians and/or Physician Assistant
- Local Sports Medicine Physician

This course has the opportunity to be interdisciplinary with the Technology Department, Health Department, Science Department, and Athletics.

# Science

Gates Chili High School science classes are designed to prepare students to be college and career ready by exposing them to the necessary knowledge and essential skills as they grow into 21st century learners. Our instruction is based on the Common Core and New York State Curriculum Standards. Our intention is to challenge all students with high quality instruction in science education. Science classes engage students through hands-on laboratory experiments, problem-solving, critical thinking, oral and written communication skills, collaboration, creativity, and using innovative technology.

In order to be college and career ready, the Gates-Chili science department STRONGLY ENCOURAGES all students to enroll in four years of science, consisting of the four CORE science classes (Physics, Earth Science, Chemistry, and Biology). These courses each culminate with the NYS Regents examination and require successful completion of 1200 minutes of documented laboratory work.

## Physical Setting/Earth Science R

**Full Year Course**      **1 Unit**  
**Grades 9-12**

**Prerequisites:** Successful completion of 8th grade Science and currently taking or completed Algebra 1 R, with teacher's recommendation.

The course includes state mandated laboratory-based units of study. Some of the units include information on Earth's structure, forces and energy, effects of Earth motions and the Earth's place in space. The course also includes the study of the Earth's dynamics, natural disasters, weather, rock formation and erosion and development of landscapes, as well as how changes impact humans and the environment. This lab course culminates with a state lab skills and written Regents examination.

## Living Environment (Biology) R

**Full Year Course**      **1 Unit**  
**Grades 9-12**

This course meets and exceeds the requirements of the Living Environment curriculum and will culminate in the Regents examination. Covered topics include:

1. Similarities/Differences among living things
2. Genetics
3. Chemistry of living organisms
4. Evolution
5. Maintenance in living things
6. Ecology
7. Reproduction and development

## Living Environment (Biology) H

**Full Year Course**      **1 Unit**  
**Grades 9-12**

**Prerequisite:** 8th Grade Earth Science and/or Physical Setting/Earth Science R with teacher's recommendation

This course will be an expanded and enriched Honors Biology course, with additional options for a faster paced, higher ability group than Biology R. This is a lab course and includes animal dissections. There will be a cumulative final in addition to the Regents examination.

## AP Biology+

**Full Year Course**      **1 Unit**  
**Grades 10-12**

**Prerequisite:** Successful completion of Biology R or Honors Biology and Chemistry R or Chemistry H.

The purpose of Advanced Placement Biology is to prepare the above average student for the typical college level work in Biology. Major emphasis of the course will be in the following areas:

1. Laboratory Experience
2. Molecular and Cellular Biology
3. Anatomy and Physiology
4. Classical and Modern Genetics
5. Evolutionary and Ecological Biology

Summer reading is required prior to the beginning of the course.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

## Biotechnology/Research

**Full Year Course**      **1 Unit**  
**Grades 10-12**

**Prerequisites:** Successful completion of Living Environment and successful completion or concurrent enrollment in Physical Setting Chemistry. It is strongly encouraged that students enroll in a core physical science course or an AP level science course as well.

Biotechnology is a course designed to give students a comprehensive introduction to the scientific concepts and laboratory research techniques currently used in the field of biotechnology; biotechnology includes bioinformatics, nanotechnology, genetic manipulations, bacteriology and ecological applications. Students attain knowledge about the field of biotechnology and deeper understanding of the biological concepts used. In addition, students develop the laboratory, critical thinking, and communication skills currently used in the biotechnology industry. Furthermore, students will explore and evaluate career opportunities in the field of biotechnology through extensive readings, laboratory experiments, class discussions, research projects, guest speakers, and workplace visits.

+ Dual enrollment course

## Conceptual Chemistry

**Full Year Course**      **1 Unit**  
**Grades 11-12**

**Prerequisite:** Successful completion of Algebra or its equivalent, and Living Environment or Physical Setting/Earth Science R; teacher recommendation.

This course entails a general overview of the principles of chemistry. Emphasis is placed on the conceptual aspects of chemistry, including a laboratory component. The course is designed for students who meet the minimum mathematics requirement. Students must take a local final examination and have the option to challenge the Regents examination with teacher approval. Successful completion of 30 labs (1200 minutes) is required to take the Regents.

## Chemistry R

**Full Year Course**      **1 Unit**  
**Grades 10-12**

**Prerequisite:** Successful completion of Algebra 1 R and concurrent enrollment in Geometry; Successful completion of Living Environment or Physical Setting Earth Science; teacher recommendation.

This course explores an enriched version of the New York State chemistry curriculum. Emphasis is placed on conceptual and mathematical aspects of chemistry. This course is designed for students who may wish to consider upper level science courses in high school or college. This course culminates in a Regents examination.

## Chemistry H

**Full Year Course**      **1 Unit**  
**Grades 10-12**

**Prerequisite:** Successful completion of Geometry R; Successful completion of Living Environment R or Physical Setting/Earth Science with teacher's recommendation.

This course will be an expanded and enriched Honors Chemistry course and will provide additional options for a faster paced, higher ability group than the Chemistry group. This course culminates in a Regents examination. Chemistry R students are not eligible for Honors Chemistry, but may continue to Advanced Placement Chemistry.

## AP Chemistry+

**Full Year Course**      **1 Unit**  
**Grades 11-12**

**Prerequisite:** Successful completion of the Chemistry examination and Algebra II, or equivalent, with teacher's recommendation. This course is equivalent to two (2) semesters of college level chemistry.

AP Chemistry is a course based on the major concepts that form contemporary chemistry in conjunction with an emphasis on the basic understandings of elementary chemistry. The course is an advanced sequel to Chemistry R or Honors Chemistry with typical college laboratory experiences and requirements.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

## Forensic Science+

**Full Year Course**      **1 Unit**  
**Grades 11-12**

**Prerequisite:** Successful completion of two Regents science courses and Regents examinations. It is strongly encouraged that students enroll in a core physical science course or an AP level science course as well.

This is a lab based course that offers the student the opportunity to investigate many aspects of Forensic Science. Fingerprinting, DNA and blood analysis, fiber, hair, glass and soil examinations, ballistics, tool markings and impression evidence will be explored. Selected topics in Forensic Science such as Forensic Anthropology, Forensic Pathology, Forensic Odontology and Forensic Entomology will be investigated. This class will intrigue the student as well as encourage the use of critical thinking and problem solving skills.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

+ Dual enrollment course

## **AP Environmental Science+**

**Full Year Course      1 Unit**  
**Grades 10-12**

**Prerequisite:** Successful completion of Living Environment or teacher recommendation.

The objective of this course is to offer the average to above average student the opportunity for an advanced course, which combines the environmental aspects of Living Environment, Earth Science and Chemistry. This course would be of interest to not only those students interested in science careers, but would be of benefit to almost any college or career choice from engineering, criminal justice, business, marketing and advertising. Major emphasis of the course will be in the following areas:

- Interdependence of Earth's Systems
- Human Population Dynamics
- Renewable and Nonrenewable Resources
- Environmental Quality
- Global Changes and their Consequences
- Environment and Society

Field trips and lab work will be an integral part of this course.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

## **Conceptual Physics**

**Full Year Course      1 Unit**  
**Grades 10-12**

**Prerequisite:** Successful completion of Algebra, Living Environment, a Physical Setting science course and one Regents science examination with teacher's recommendation.

This is a full-year elective course designed for the student who needs a general overview of physics. Emphasis is placed on the basics of physical principles and their applications to every day situations rather than the more technical aspects of this field. This course will culminate in a local examination.

## **Physics R**

**Full Year Course      1 Unit**  
**Grades 10-12**

**Prerequisites:** Successful completion of Geometry R.

Physics R is the study of five major topics: Mechanics, Energy, Wave Phenomena, Electricity-Magnetism, and Modern Physics. In all of the topics, both problem solving and the processing of information are stressed. Emphasis is, therefore, placed heavily on reasoning and deduction rather than rote memorization. Added bonuses are the ability to come to know, use and develop some skills in the use of various instruments and devices. Emphasis is also placed on the ability to derive physics relationships and communicate them in writing.

## **AP Physics I+**

**Full Year Course      1 Unit**  
**Grades 11-12**

**Corequisite or Prerequisite:** Algebra II R

This course is offered to the above average science student who wants a comprehensive study of non-calculus based Physics at the college level. The course meets and exceeds the requirements of the Physics R curriculum and will culminate in the Regents examination. The course is designed for:

- Juniors or Seniors intending to major in Physics, Engineering, Chemistry, Pharmacology, Medicine, Math, or Computer Science.
- Students continuing an advanced placement program.

The course provides the opportunity for college credit upon successful completion of the AP Physics I examination. All students will be required to take the NYS Regents Physics exam.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

## **AP Physics C**

**Full Year Course      1 Unit**  
**Grade 12**

**Prerequisites:** AP Physics I with Physics teacher recommendation.

The intention of this course is to prepare students for the demanding calculus-based College Physics for Engineering. It deals with calculus applications in classical mechanics. Topics such as Vectorial Analysis, Particle Dynamics, Work and Energy principles, etc., are covered in depth.

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

## **Intro to Optics+**

**Full Year Course      1 Unit**  
**Grades 10-12**

**Prerequisites:** Successful completion of Geometry R and two science courses that culminated in Regents examination. It is strongly encouraged that students enroll in a core physical science course or an AP level science course as well.

This is an introductory course in the field of optics. The optics field has great opportunities that are highly paid. Students interested in photography will also find the course beneficial. Students will learn about mirrors, prisms, thin and thick lenses, diffusers, stops and various types of light sources. Reflection, refraction, dispersion, image formation and aberrations are studied with the emphasis on the ray concept of light. This course is required for students in MCC's Optical Systems Technology program (both the AAS and certificate programs).

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## **Unified Science**

**Full Year Course      1 Unit**  
**Grades 10-12**

**Prerequisites:** Successful completion of two Regents science courses that culminate in a Regents examination.

This project-based course is an overview of the four core sciences for the non-science major, including Earth Science, Biology, Chemistry and Physics. Each quarter focuses on a different core science, with a focus on the applications of scientific concepts in the students' lives.

## **Anatomy and Physiology**

**Semester Course      ½ Unit**  
**Grades 10-12**

**Prerequisites:** Successful completion of Living Environment or equivalent. It is strongly encouraged that students enroll in a core physical science course or an AP level science course as well.

Anatomy and Physiology is a laboratory-based study of the human body. Basic concepts of human anatomy and physiology, including the structure of cells, tissues, and organs will be studied.

This course would be advantageous for potential science majors in college. This course is designed for biology and health career majors. Students will demonstrate an in-depth knowledge of human anatomy and physiology and its real world applications at the conclusion of the course.

## **Anatomy and Physiology II**

**Semester Course      ½ Unit**

**Prerequisites:** Successful completion of Living Environment or equivalent. It is strongly encouraged that students enroll in a core physical science course or an AP level science course as well.

Anatomy and Physiology II is a laboratory-based course that continues the tour of the form and function of the human body introduced in Anatomy and Physiology I. The immune system, central nervous system, endocrine system, respiratory system and digestive system will be covered. This course would be advantageous for potential science majors in college. This course is designed for biology and health career majors. Students will demonstrate an in-depth knowledge of human anatomy and physiology and its real world applications at the conclusion of the course.



# Social Studies

Students are required to take Global History and Geography and United States History and Government. Students are also required to take Dynamics of Citizenship and Economics. Elective offerings in the Social Studies Department follow the description of the required courses.

## Global History and Geography 9 Regents

The general subject matter is the same for all students; the materials used, the depth of content studied and the methodology varies. In determining a suitable course, the student and parent(s) should realistically assess the student's reading, writing and verbal skills, dedication to work, work habits and interest in the subject. Teacher recommendations for course selection will consider academic achievement, ability in test taking skills, performance on achievement tests and effort and interest. All students in each course will have to pass the Global History Regents examination at the end of Global History 10 to meet graduation requirements.

All Global History and Geography courses include such topics as an introduction to global history, the ancient world, civilizations and religions (4000 BC-500 AD), expanding zones of exchange and encounter (500-1200 AD), global interactions (1200-1650), the First Global Age (1450-1770), and an Introduction to the Age of Revolutions. There will be considerable geographical, historical, and factual content. In preparation for the Global History Regents examination in grade 10, students at all levels will do extensive writing.

### Global History and Geography 9 R

**Full Year Course      1 Unit**

Students will continue to develop test-taking skills including Regents essay writing, as well as studying concepts that appear in the curriculum. Research projects, outside reading and homework are assigned to reinforce the extensive content of the curriculum. The course will emphasize the preparation for the Regents examination in 10th grade.

### Global History & Geography 9 H

**Full Year Course      1 Unit**

**Prerequisite:** Teacher recommendation.

This course is designed to meet the requirements of the Vertical AP Program. This course is for highly motivated students who need reinforcement in the skills necessary to successfully complete an Advanced Placement course of study in social studies. Students are expected to complete extensive outside reading and research. The course will give students the tools and knowledge to succeed in future Advanced Placement courses. A recommended summer reading list is given to students. Students who continue this course in the 10th grade will take the Regents Examination in June.

## AP World History I

**Full Year Course      1 Unit**

**Prerequisite:** Teacher recommendation.

This course is designed for students who have above average interest in social studies, are highly skilled, and are highly motivated. Students should be willing to go into more depth and be able to handle more challenging reading, homework, and examinations. This AP World History course highlights the following five themes: interaction between humans and the environment; development and interaction of culture; state-building, expansion, and conflict; creation, expansion, and interaction of economic systems; development and transformation of social structures. Changes in functions and structures of states and in attitudes toward states and political identities will be explored with an emphasis on historical thinking. The current textbook used in this course is *The Earth and Its Peoples: A Global History*, Houghton Mifflin. Students who continue AP World History II in 10th grade will take both the Regents Examination and have the opportunity to take the AP Exam.

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

## Grade 10 Global History & Geography

Global History and Geography 10 includes such topics as world geography, the age of revolutions, 1750-1914; a half century of crisis and achievement, 1900-1945; the twentieth century since 1945, and a concluding unit on making global connections and interactions.

The general subject matter is the same for all students; the materials used, the depth of content studied and the methodology varies. In determining placement the student and parent(s) should realistically assess the student's reading, writing and verbal skills, dedication to work, work habits and interest in the subject. Teacher recommendations for placement will consider academic achievement, ability in test taking skills, performance on achievement tests and effort and interest.

### Global History & Geography 10 R

**Full Year Course      1 Unit**

**Prerequisite:** Global History and Geography 9 R

Students will continue to develop test-taking skills including Regents essay writing, as well as studying concepts that appear in the curriculum. Research projects, outside reading and homework are assigned to reinforce the extensive content of the curriculum. The course will emphasize the preparation for the Regents examination in 10th grade.

## **Global History & Geography 10 H**

**Full Year Course      1 Unit**

**Prerequisite:** Global History & Geography 9 H or teacher recommendation

This course is designed to meet the requirements of the Vertical AP Program. This course is for highly motivated students who need to reinforce the skills necessary to successfully complete an Advanced Placement course of study in social studies. Students are expected to complete extensive outside reading and research. The course will give students the tools and knowledge to succeed in future Advanced Placement courses. Students who continue this course in the 10th grade will take the Regents Examination in June and will be expected to enroll in Advance Placement American History in 11th grade.

## **AP World History II**

**Full Year Course      1 Unit**  
**Grade 10 or Grade 12 elective**

**Prerequisite:** Global History & Geography 9 H or teacher recommendation

AP World History students will be preparing to take both the AP examination in May, as well as the Global History and Geography Regents examination in June to meet New York State Regents diploma requirements. Students should possess above average skills in reading and writing and should expect to be working on college-level reading material. The AP World History course highlights the following six themes: impacts of interaction among major societies, relationship of change and continuity, the impact of technology and demography on people and the environment, systems of social and gender structure, cultural and intellectual developments and interactions among and within societies and changes in functions and structures of states and in attitudes toward states and political identities. This course is designed to increase student knowledge of the impact of historical events on the modern world, and stimulate intellectual growth. A summer reading and writing assignment will be given prior to the start of the course. Students will be preparing to take both the AP examination in May as well as the Global History & Geography exam to fulfill state graduation requirements.

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

## **Grade 11 United States History and Government**

The emphasis in this course is on the United States as an industrial nation, the constitution, legal issues, and international involvement by the United States.

The general subject matter is the same for all students; the materials used, the depth of content studied and the methodology varies. In determining placement the student and parent(s) should realistically assess the students reading, writing and verbal skills, their dedication to work, work habits and interest in the subject. Teacher recommendations for phase placement will consider academic achievement, ability in test taking skills, performance on ability tests and effort and interest. Students are required to have successfully completed Global History 10 R.

## **U.S. History and Government 11 R**

**Full Year Course      1 Unit**

**Prerequisite:** Global History & Geography 10 R

This course is designed to prepare students to meet a graduation requirement of the Regents examination. Students will find emphasis placed on test taking skills including memorization, analysis, organization and essay writing. Students are expected to have average to above average skills.

## **US History and Government 11 H+**

**Full Year Course      1 Unit**

**Prerequisite:** Global History & Geography 10 R

This course is a survey of the history of the United States taught as two dual-credit courses through MCC. It includes: 1.) Pre-Columbian Indian civilizations to the Civil War (111): first semester with a final exam (Mid-term) in January. 2.) Reconstruction to present (112): second semester with a final exam (Regents) in June.

Requirements for the course include the ability to read with a questioning mind and to write essay answers which are essential to performing well in this course. Students are responsible for knowing the material presented, both in lectures and in the textbook. To accomplish this, students should be 'active learners' in the sense that they would seek to accomplish more than memorization and passive absorption of readings and lecture materials. Students are responsible for fulfilling all of the required assignments.

For more information visit the following link on the Gates Chili website: <http://www.gateschili.org/webpages/howlett/americanperspectives.cfm>

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## **AP American History**

**Full Year Course      1 Unit**

**Prerequisite:** AP World History II or teacher recommendation.

This is a one-year college level course for students planning on attending college. The content of the course involves the chronological study of the economic, political, diplomatic, social and cultural history of America from pre-colonial times to the present. Students will be expected to do college level reading, participate in seminar discussions and write papers based on primary sources. Independent note taking will be assigned from the textbook. Juniors will be preparing to take both the AP examination in May, as well as the US History and Government Regents exam to fulfill state graduation requirements.

The course is recommended for college-bound students who have a recommendation from their previous year's Social Studies teacher.

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

# Grade 12 Civics and Economics

## AP Government and Politics

**Full Year Course      1 Unit**

**Prerequisite:** U.S. History and Government R or AP American History and the recommendation of the 11th grade teacher.

This course is designed for college-bound seniors who have a particular interest and/or ability in the field of American Government and Political Science. The course will include a study of such topics as: the constitutional foundations of American government, the citizen base of politics, political parties and interest groups, the institutions of the three branches of national government, the policy making process, and civil rights and civil liberties. Extensive reading and writing at a college level will be expected. Students will be required to participate in community activities or attend government meetings outside the classroom. Students will be preparing to take the Advanced Placement exam(s) in May.

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

*This course may be substituted for the Dynamics of Citizenship course required for graduation.*

## Dynamics of Citizenship

**Semester Course      ½ Unit**

**Prerequisite:** Global History and Geography, U.S. History and Government

This course will engage students in how to balance the rights and responsibilities of individual members with the needs of society as a whole. Topics in American government are studied with an emphasis on local needs and issues. Students investigate course content through instruction, guest speakers, research, readings, class discussions, and community service learning (CSL) projects. Since CSL is a major component of this course, students may need transportation to cooperating sites and MUST exhibit positive citizenship behavior. Content includes the study of current public policy issues in the communities of Gates and Chili and New York. Topics may include philosophy of democracy, citizenship, authority, and constitutional and criminal law.

## Economics+

**Semester Course      ½ Unit**

**Prerequisite:** U.S. History and Government, Global History and Geography

This course will include the basic economic concepts and understandings necessary for economic decision-making in today's world. Students will look at economics as it applies to both the United States and the world economic situation.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Junior Achievement Economics +

**Semester Course      ½ Unit**

**Prerequisite:** U.S. History and Government, Global History and Geography and teacher recommendation

This course is an enriched alternative to Economics includes not only the basics of micro and macroeconomics, but encompasses an enriched curriculum with a consultant from business or industry in Rochester. Students enrolled in this course will spend time in small group "companies" learning about management decisions and roles; competing in a computer simulation with the other "companies" in the class. The course is offered in conjunction with Junior Achievement of Rochester.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## AP Micro and Macro Economics +

**Full Year Course      1 Unit**

**Prerequisite:** Successful completion of U.S. History and Government R or AP American History and the recommendation of the 11th grade Social Studies teacher.

This course is designed for college bound seniors who are interested in the fields of business, accounting, law or economics. This course will focus on macro-economics and students will study how scarcity and choice influence the decisions made by society and by individuals in the marketplace. The course uses classical, Keynesian and monetarist theories to explain how national income, price, aggregate demand and money supply are determined. Extensive reading and writing at a college level will be expected. Students will be preparing to take the Advanced Placement exam(s) in May.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

# Social Studies Electives

## African-American History

**Semester Course      ½ Unit**  
**Grades 9-12**

This course will examine African American history and culture throughout the 17th century to the present day. Topics that will be explored within this class include; the African slave trade, the Abolitionist Movement, the fight for rights in both America's political and economic systems, modern day issues, as well as cultural contributions to the United States of America. Students will also delve into the depiction of blacks in popular culture; such as jazz, hip hop and snitching. Opportunities will be provided for students to discuss famous and influential African Americans and their contributions throughout American history.

*+ Dual enrollment course*

## Current Issues

**Semester Course**      **½ Unit**  
**Grades 9-12**

This course will explore areas of controversy and/or change within our society today. The objective of the course will be to explore various aspects of a given topic currently in the news. Newspapers and magazines will be the primary source of information. Students will research and present issues on a local, state and national level. Newsworthy events in the fields of art, politics, science, sports, world events, movies, social media and TV will be included. In addition, students will be expected to develop skills of analysis and critical thinking to understand the role and power of the media in today's world.

## Introduction to Criminal Justice+

**Semester Course**      **½ Unit**  
**Grades 11-12**

**Prerequisite:** Global History & Geography 10 R

This course focuses on the relationship between American citizens and the three components which make up the criminal justice system: law enforcement, the courts, and the prison system. Each component will be examined from its historical development through its present day status. What is criminal behavior? How bad is crime in the United States? Do criminals have enough rights? Do they have too many rights? What is cruel and unusual punishment? Is the death penalty a deterrent to crime? Should prisons punish or rehabilitate? These issues, as well as many others, will be examined through activities such as readings, discussions, research, and role playing.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Psychology

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisite:** Global History and Geography

What makes people "tick"? Why do people act and think as they do? Psychology attempts to explore and answer these questions and others pertaining to human behavior and mental processing. This is a survey course that explores the fascinating and interesting field of the human mind. Topics will include: neuropsychology, psychological development, states of consciousness, personality, and psychological disorders. Students will complete a variety of assignments in which they will explore and examine human thought and behavior.

## AP Psychology

**Full Year Course**      **1 Unit**  
**Grades 10 -12**

**Prerequisite:** Teacher recommendation

*Note: Psychology is NOT a prerequisite*

Psychology is the social science that seeks to understand human and animal behavior and mental processes through a variety of perspectives and to apply that understanding for the benefit of humanity. Psychological research has yielded important clues and valuable theories as to why we think, feel and behave as we do. The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior of human beings and animals. It is open to highly motivated 10th through 12th grade students who are willing to meet the challenges and demands of a rigorous curriculum. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major fields within psychology. This course is recommended for college bound students who have the recommendation of their previous year's Social Studies teacher.

*High School students can earn college credit for qualifying AP Exam scores. The college credit option DOES require a fee.*

## Sociology

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisite:** Global History and Geography 9 R

Society has problems. They are your problems. It is your responsibility as a human being to study and understand them so they can either be solved or lessened. It is your world -- make it a happier one. In an examination of Sociology, we can get some ideas of the roles of religion, school, industry, government, and family. Opportunities are offered to study these ideas and also to do individual investigations.

## World War, Holocaust and Rebuilding

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisite:** Global History & Geography 9 R

This course will cover European involvement in World Wars I and II, the Holocaust, and the aftermath of World War II, including present day Europe and Germany. The course purpose is to analyze the historic roots of the World Wars, the Weimar Republic, the Nazi period of Germany, and the Holocaust. Students will research the results of World War II on Europe and the impact on Holocaust survivors.

+ Dual enrollment course

# Technology

All Technology Education courses may be chosen by any student as separate electives or a five-unit sequence requirement of graduation. Courses in a sequence may be taken in any order and are open to all grades.

Technology Education is an exploratory program of instruction in the resources, systems, and impacts of technology. Students enrolled in Technology Education courses study the major technological systems of the world and our society. Technology Education courses have been designed to meet the needs of all academic levels and are taught through laboratory-based, "hands-on" learning activities.

Students who choose to be Technology Majors may waive the foreign language graduation requirement with a 5 unit sequence of Technology for the Regents with Advanced Designation Diploma.

## Half Year - ½ Unit Courses:

- Architectural Design
- Architecture – Residential
- Computer Aided Design & Drawing+ (CADD)
- Construction Systems
- Creativity & Innovation (woodworking)\*
- Digital Electronics+
- Electricity/Electronics+
- Graphic (Electronic) Processes
- Manufacturing Systems\*
- Metals and Fabrication
- Photography I/Technical+
- Photography II/Applied
- Transportation Systems

\* *Wood is the primary material.*

## Full Year - 1 Unit Courses:

- Design & Drawing for Production+\*\*
- Principles of Engineering
- Web Communication
- World of Technology

\*\**Note: All students may take this course as an alternative for the Art/Music requirement.*

## Dual Enrollment College Course Option

Receive high school plus college credit for taking the following courses: This option requires a fee paid to the college at a reduced tuition cost.

- Computer Aided Design & Drawing+(CADD)
- Digital Electronics+
- Drawing for Design and Production+ (DDP)
- Electricity/Electronics+
- Photography I/Technical+

## Architectural Design

*(Offered every other year opposite Residential Architecture – odd years starting 2017)*

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisite: None**

Students in Architecture Design will take on the role of a developer to layout a small community given a specific piece of land to work with. From the layout students will then design the buildings needed for the community such as restaurants, mini-marts, gas stations, town hall, school, Fire Department. Students will explore: typography/ surveying skills, basics of development layout and the elements of good design. Students will sketch design concepts and finalize plans through the use of Computer Assisted Drawings (CAD) for their projects.

## Architecture – Residential

*(Offered every other year opposite Architectural Design – even years starting 2018)*

**Semester Course**      **½ Unit**  
**Grades 10-12**

**Prerequisite: None**

Students in Residential Architecture will design a home in the style of their choice. The house design portfolio will consist of sketches, drawings and possibly a scale model. Students will explore: architectural styles, elements of good design and construction techniques. Students will use both hand drawing and Computer Assisted Drawing (CAD) in their projects.

## Computer Aided Design & Drawing + (CADD)

**Semester Course**      **½ Unit**  
**Grades 10-12**

Prerequisite: None

This is a beginning course in engineering drawing using design software. The key part of this course involves creating and manipulating 3-dimensional solids to solve technical problems and produce quality drawings. A variety of drawing practices will be covered such as: wire-frame modeling, engineering analysis, and rendering.

*Dual Enrollment - Students may elect to take this course for college credit. The college credit option DOES require a fee.*

## Construction Systems

**Semester Course**      **½ Unit**  
**Grades 9-12**

Prerequisite: None

In this course students will gain knowledge in the Construction field. This course will provide students with the proper knowledge to successfully maintain their own houses as well as provide students with the construction background to successfully continue a career in one of the construction trades. Units to be covered are Concrete, Framing, Roofing, Drywall, Plumbing, Finish Carpentry, and House Financing.

## Creativity and Innovation

**Semester Course**      **½ Unit**  
**Grades 10-12**

Prerequisite: None

The student will design and build a project of their choice. Typical projects have included items of furniture, speaker enclosures and storage units. Students will be taught how to use tools and machinery necessary to complete their projects. The student will work with the instructor to develop plans to satisfy the course requirements.

## Design and Drawing For Production+

**Full Year Course**      **1 Unit**  
**Grades 9-12**

Prerequisite: None

Students will work through the creative design process to develop solutions to various design problems. An emphasis will be placed on sketching and 3-D computer modeling as a means to accurately describe their solutions to problems. Students will learn the basics of: technical drawing, dimensioning, computer aided drawing, and model making.

*Note: All students may use this course to satisfy the required one unit of Art/Music credit for graduation.*

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Digital Electronics+

**Semester Course**      **½ Unit**  
**Grades 9-12**

Prerequisite: Electricity/ Electronics or teacher's permission.

This course is designed for students considering careers in engineering, computer science or electronics. The digital electronics course is modeled after freshman level college electronics courses. Students in this course will learn about circuits that are found in computers, watches, CD players, video games and calculators. Students will design, test and build many digital logic circuits. Students will use computer simulation software as a design tool.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Electricity/Electronics+

**Semester Course**      **½ Unit**  
**Grades 9-12**

Prerequisite: None

Students will learn how electricity is generated, transmitted, controlled, and used. This "hands-on" course will involve students in many activities including: building electronic projects, making printed wiring boards, automotive wiring, residential wiring, using testing instruments and using computer simulation software.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Graphic (Electronic) Processes

**Semester Course**      **½ Unit**  
**Grades 9-12**

Prerequisite: None

Students will have instruction and hands-on activities in the field of printing with image design, layout for pre-press processes, image transfer (printing), electronic imaging, finishing and desktop publishing. Other computer technologies will be stressed. Careers in the graphic arts fields will be explored.

## Manufacturing Systems

**Semester Course**      **½ Unit**  
**Grades 9-12**

Prerequisite: None

In this course students will be working with a variety of machines and hand tools in order to mass produce products for consumers. Students will learn and implement techniques used in the manufacturing industry to increase production time as well as increase production quality. Students will be educated in the use of hand tools and machinery necessary to complete their manufacturing projects.

+ Dual enrollment course

## Metals and Fabrication

**Semester Course**      **½ Unit**  
**Grades 10-12**

Prerequisite: None

This introductory course teaches students about the different types and properties of metals, along with the most common methods used to fabricate metal objects. Major areas of study include: applied shop math, soldering copper pipe, sheet metal layout and fabrication, precision measurement, precision turning, machining, brazing, and MIG welding. The course includes a basic review of technical sketching and dimensioning, along with an overview of the engineering design process. Shop safety is taught and stressed throughout the course. Students will complete activities and projects related to metalworking, and will work in teams to design, model, and prototype a solution to a problem that involves metalworking.

## Photography I/Technical+

**Semester Course**      **½ Unit**  
**Grades 9-12**

Prerequisite: None

This photography course will introduce the student to the basic elements of photography which are: camera handling, film, film processing, enlarging techniques, and finishing procedures as well as digital photography. The course will begin with the basics and then help each student to develop a personal style of picture taking. A focus is on the processes involved in producing photographic prints.

*Dual Enrollment - Students may have the opportunity to obtain college credit for this course. The college credit option DOES require a fee.*

## Photography II/Applied

**Semester Course**      **½ Unit**  
**Grades 9-12**

Prerequisite: Photography I+ - or Instructor's Approval

The advanced photography course will explore in greater depth the technical aspects of photography. Items to be covered include: advanced enlarging and darkroom techniques, use of adjustable cameras (35mm cameras), lighting techniques, studio portrait photography, digital photography and career potentials in photography.

## Principles of Engineering

**Full Year Course**      **1 Unit**  
**Grades 11-12**

Corequisite or Prerequisite: Geometry & Physics R

Principles of Engineering (POE) is a course in applied physics and mathematics that helps students develop their understanding of the various fields of engineering and engineering technology. Topics of study include: the history of engineering, fields of engineering, technical writing, technical presentation and communication standards, computer-aided design (CAD), engineering design process, simple machines and mechanisms, fluid power, electrical systems and circuit analysis, automated control systems, applied engineering statistics and quality, materials and material properties, statics and kinematics.

*Note: Students may take this course as either a technology elective, a third year of mathematics OR a third year of science.*

## Transportation Systems

**Semester Course**      **½ Unit**  
**Grades 9-12**

Prerequisite: None

Students will learn how land, aviation, aerospace and marine transportation systems operate. Students will design and build model rockets, airplanes and boats. Students will learn how to properly maintain vehicles.

## Web Communications

**Full Year Course**      **1 Unit**  
**Grades 9-12**

Prerequisite: None

Students will learn how to design their own web pages and build websites using HTML coding and web editing software. Utilizing Adobe Dreamweaver, students will design complex web pages that are colorful, informative and interactive. Students will gain experience using FTP to upload their web pages to the Internet.

## World of Technology

**Full Year Course**      **1 Unit**  
**Grades 11-12**

Prerequisite: Successful completion of both Geometry and 1 unit of Regents Science.

World of Technology is a course in pre-engineering, and problem solving. Units in structural engineering, electrical/mechanical engineering, auto safety engineering, power tools, and engineering materials. This is a full year course. Students will enter the northeast high school STEM Competitions hosted at MCC in the spring. This course counts as a third unit in math or science. Students compete in 3 real world modeling competitions during the final months of the course. Students must be in 11th or 12th grade.

*Note: Students may take this course as either a technology elective, a third year of mathematics OR a third year of science.*

+ Dual enrollment course

# High School Technology Department

## 5-Unit Sequence Requirements

Required	Careers and Financial Management+		
<b>Systems Courses</b>			
Select 2	Manufacturing Systems	Transportation Systems	Construction Systems
<b>Foundation Courses</b>			
Select 2 *	Electricity/ Electronics+	DDP+ – 1 unit	Graphic (Electronic) Processes

*\*Extra foundation course may be used as elective credit.*

<b>Balance of 5 Units Chosen From This List</b>		
Residential Architecture	Photography I/ Technical+	Photography II/Applied
Creativity & Innovation	Web Communications – 1 unit	Metals and Fabrication
Principles of Engineering – 1 unit	World of Technology – 1 unit	Computer Aided Design & Drawing+
Architectural Design	Digital Electronics+	

<b>Suggested Sequence</b>	
<b>Grade 9</b>	Design & Drawing for Production+ (DDP) 1 unit /System Courses
<b>Grade 10</b>	System/Foundation Courses
<b>Grade 11 and 12</b>	Careers and Financial Management+
	System/Foundation Courses
	Remaining Elective Units

+ Dual enrollment course



# New Visions Program

## New Visions Program: Professional Career Exploration

The New Visions Program at WEMOCO is an exceptional educational opportunity for college-bound high school seniors who are looking to prepare themselves for college, participate in community service, and gain experience in a career field of their choice. The New Visions approach features independent research, academic rigor, relevant interdisciplinary curriculum, student-mentor relationships, community outreach projects, and support of student leadership and initiative.

### New Visions Courses:

- Emerging Professions
- Health Professions
- Justice Professions

### Community Service:

*(Minimum of 100 hours)*

All students select a volunteer site where they make meaningful contributions while strengthening their connection to the community. The student, organization, and program all benefit from the time and effort that each individual spends with a site. Students are also involved in planning and participating in a number of outreach projects or events designed to contribute positively to the community at large.

### Internships/Shadowing:

*(Minimum of 100 hours)*

Weekly internship arrangements help students network with professionals, develop positive mentoring relationships, and understand the link between academics and the working world. Shadowing experiences throughout the year help provide the student with a variety of perspectives and a better overview of their chosen field.

### Transferable Skills:

New Visions builds upon a strong academic foundation while promoting the development of transferable skills to ensure quality life-long learning experiences. These skills include but are not limited to:

- Application of technology
- Creative thinking
- Effective communication skills
- Problem solving

- Public speaking
- Stress management
- Task prioritization
- Time management
- Team-building

### College Preparation:

*(SUNY Brockport, Monroe Community College)*

New Vision students attend class on campus at SUNY Brockport or have access to Monroe Community College, depending on the program in which they participate. As guests of the college, they are issued identification cards and have full access to facilities including computer labs, libraries, and the career planning resource centers. The rigorous project-based curriculum gives students, a realistic introduction to collegiate standards and expectations.

### High school credit:

English 12	1 credit
Career Exploration	3 credits
Economics	½ credit
Dynamics of Citizenship	½ credit

### College credit available:

*(Dual Enrollment Programs at Monroe and Genesee Community Colleges)*

Introduction to Economics (ECO 101)	3 credit hours (New Visions Programs)
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Service Learning Internship (SVL 101)	3 credit hours (New Visions Programs)
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English Communications 1 (ENG 101)	3 credit hours (New Visions Programs)
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Health, Family and Society (HED 130)	2 credit hours (Health Professions)
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Introduction to Criminal Justice (CRJ 101)	3 credit hours (Justice Professions)
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Criminal Justice Education Internship (CRJ 121)	3 credit hours (Justice Professions)
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# New Visions Program - A Unique Senior Year Opportunity

**Action Learning, Community Service, Authentic Internships, & College Preparation for Motivated Students**

## Emerging Professions

*New Trends in Traditional  
& Modern Careers*

### The College at Brockport

#### *Career Placement Opportunities*

- Small Businesses
- Animal Hospitals
- Area Schools
- Local Agencies

#### *Areas of Professional Inquiry: (Suggested but not limited to)*

- Business Management
- Engineering
- Computer / IT
- Finance / Accounting
- Education
- The Arts
- Veterinarian

#### For more information contact:

Paul Root  
proot@monroe2boces.org  
395-5800

## Health Professions

**Monroe Community Hospital/  
The College at Brockport/  
Unity Hospital**

#### *Career Placement Opportunities*

- Hospitals
- Outpatient Clinics
- Health Related Agencies

#### *Areas of Professional Inquiry: (Suggested but not limited to)*

- Nurse Practitioner
- Occupational Therapist
- Physician
- Physician's Assistant
- Physical Therapist
- Dental
- Pharmacy

#### For more information contact:

Pamela Suess  
psuess@monroe2boces.org  
395-5973

Todd Pschierer 395-5985  
tpschieer@monroe2boces.org

## Justice Professions

**Monroe County Sheriff's Office  
Public Safety Building**

#### *Career Placement Opportunities*

- City/County Court
- Police Agencies
- Law Offices

#### *Areas of Professional Inquiry: (Suggested but not limited to)*

- Lawyer
- Police Officer
- Corrections Officer
- Social Worker

#### For more information contact:

Stephanie Kula  
skula@monroe2boces.org  
777-6722

**Find out more at the website: [www.monroe2boces.org](http://www.monroe2boces.org) (See Career and Technical Education)**

# WEMOCO

## An Education for the Real World

*Prerequisite: Completion of algebra, good academic standing and good attendance record.*

Career and technical education offers you a first-hand opportunity to explore any of a number of career fields. Relying heavily on hands-on learning, it's an intensive, exciting way to learn if a particular career is the right one for you.

You can learn the skills you need for immediate employment, or prepare for a career that requires further education.

Either way, business and industry are waiting for you. Their need for skilled workers has never been greater, and WEMOCO can help you open the door to those opportunities.

### Did You Know?

- About 55 percent of the students who finish a program at WEMOCO find work in their field of study.
- Nearly 200 WEMOCO students are employed in their field of study before they graduate, thanks to WEMOCO's Cooperative Education Program.
- 95% of students in the co-op program are hired by their employers full time after graduation.
- WEMOCO students receive training in resume writing, job location and interviewing through a full-time, year-round placement office.
- Business and industry have relied on WEMOCO as a source for trained personnel for over 30 years.
- 500 WEMOCO students receive certificates of completion each June.
- 40 percent of WEMOCO graduates go on to college.
- WEMOCO offers over 20 different one- and two-year programs.
- WEMOCO course credits a student with a major sequence, including the Introduction to Occupations, for Regents high school graduation.
- 1000 students attend WEMOCO daily.

### One-Year Courses

- Baking
- Heating & Air Conditioning+
- Intro to Construction Trades – **NEW**
- Plumbing & Heating

### Two-Year Courses

- Advertising Design & Multi-Media Academy
- Automotive Collision Repair Technology
- Automotive Technology+
- Carpentry
- Certified Nurse Assistant
- Child & Family Development
- Computer Automation & Cybersecurity
- Computer Technology+
- Cosmetology
- Culinary Arts Academy+
- Dental Assisting – **NEW**
- Engineering & Metal Fabrication Academy+
- Health & Exercise Science
- Heavy Equipment Operation and Maintenance
- Laboratory Technician+
- Outdoor Power Sports Technology
- Residential & Industrial Electricity

Detailed course descriptions are available at [www.monroe2boces.org](http://www.monroe2boces.org).

## One-Year Courses

### Baking

Students learn the fundamentals of baking, customer relations, food handling and sanitation. Students operate a retail bakery in class that serves students, staff and the general public. Students also prepare baked goods for special luncheons and dinners served in conjunction with the Culinary Arts Class. Practical baking skills are reinforced by theory instruction in safety, sanitation and mathematics/measuring skills that are needed for large scale baking operations.

### Heating and Air Conditioning – Green Technology+

Students learn the fundamentals of air conditioning, refrigeration, heating and piping principles for residential and commercial applications. Students explore energy efficiency, green technology, sustainable and renewable energy systems. Students read blueprints, drawings, and schematics and understand building codes for the installation of heating and cooling systems. Students apply their knowledge by installing, servicing and troubleshooting heating, air conditioning and refrigeration units that utilize state of the art, green technologies.

+ Dual enrollment course

## **NEW** Into to Construction Trades

In this one year program, students learn the fundamentals of residential construction. Students read blueprints and schematics. Students learn the basics of carpentry, electrical, plumbing, tile work, HVAC basics and heavy equipment. They will receive current industry aligned training and apply skills through class activities. Students also earn work based learning hours and experience. Successful completion provides students with credits and credentials to assist with high school completion.

## **Plumbing and Heating**

Students learn the fundamentals of residential plumbing and heating installation. Students read blueprints, drawings, and schematics. Students learn to fit, assemble and prepare piping for a variety of distribution systems (drain, waste, vent and hot/cold water). Students learn about solar and green technologies. Students participate in the construction of a modular home in conjunction with the Carpentry and Industrial & Residential Electricity classes

## Two-Year Courses

### **Advertising Design & Multi-Media Academy**

Students will learn how individual creativity integrates with graphic/multi-media technical skills. Students will use this integrated construct to communicate purposeful, powerful visual and audio messages. Students will learn how to utilize industry-standard software to create, design, edit and produce graphic images for web pages, traditional print products and video (including moving images and sound).

### **Automotive Collision Repair Technology**

Students learn to repair and refinish damaged vehicles. In addition, they learn the fundamentals of metal straightening, MIG-welding, plastic fillers, flexible bumper repair, major collision repair, hardware repair and service, detailing, painting and refinishing. Students will study and demonstrate competency in writing collision estimates and customer work orders. Students study the industry standard I-CAR curriculum in a technology based classroom and service vehicles in a state of the art lab.

### **Automotive Technology+**

Students learn to repair and maintain a variety of vehicles. They learn to locate mechanical, electronic and computer problems through careful diagnosis. They perform the necessary repairs using state of the art equipment. Units of Study are delivered in four 20-week modules aligned to the Automotive Service Excellence standards (ASE). Instruction is provided in a high tech computer based classroom. Hands-on-experience is attained by servicing customer vehicles in a state of the art service facility. Successful completion of this course prepares students for the NYS certified automobile inspector exam.

+ *Dual enrollment course*

## **Carpentry**

Students learn the fundamentals of residential carpentry and participate in the construction of a house on site. First year students learn the fundamental principles and theoretical concepts of wall, floor and roof framing, exterior finishes including windows, doors, siding and roofing. Second year students concentrate on finish work: dry wall, kitchens and baths, trim and painting. Students work on other related projects including furniture, sheds and decks.

## **Certified Nurse Assistant**

Units of study are focused on preparing students for the New York State Nurse Aide certification exam. Students learn the fundamentals of patient care and skills necessary for entry level employment in health care facilities such as nursing homes, hospitals and home health care. Students spend the first 20 weeks in a simulated hospital setting. Students participate in role play activities as patients and caregivers for their fellow classmates. Students spend part of the third marking period directly working with patients in a clinical setting.

## **NEW** Child and Family Development - 2 year course (Formerly Early Childhood Education)

Students are exposed to the daily operation and function of pre-school classes encompassing an integrated special education and developing pre-school program. Students interact with various educational services that are provided with this setting. Students explore careers within the education field, such as: occupational therapy, physical therapy, speech therapy, art therapy, vision specialists, special education coordinators, school counselors, career counselors and psychologists.

## **NEW** Computer Automation & Cybersecurity - 2 year course

Students are introduced to computer technology, computer automated instrumentation, and cybersecurity. Students will learn concepts, techniques, and control tools used with computers, microcontrollers, Programmable Logic Controllers (PLCs), and Programmable Automation Controllers (PACs) to solve problems encountered in high technology businesses. Students will identify security risks to computer automated instrumentation devices and computing resources associated with today's high technology businesses. Students will assess potential threats to computing resources and develop effective countermeasures aimed at protecting data and computer assets.

## Computer Technology+

Students learn the fundamentals of digital and analog electronics, computer hardware, software and networking. This skill set prepares students for entry level positions as Computer Technicians. Students who complete Computer Technology will be able to assemble computer systems, install operating systems and troubleshoot computers, networks and peripherals via system tools and software. First year students will learn and practice the analog and digital electronic principles that underlie the computer technology industry. Second year students will learn how to set up and support individual PC's and PC networks.

## Cosmetology

Students learn the fundamentals of hair design, chemical services and nail and skin care. Extensive class time is spent studying concepts and terminology relevant to cosmetology. The course includes the theory and application of chemistry, anatomy, physiology and basic math skills to supplement the extensive practical work. Students are required to participate as models and operators. Students are prepared for the New York State Cosmetology licensing exam (both theory and practical) via the 1000 hours of classroom participation. In order to earn 1000 hours, students attend six weeks of summer school for two years. Students are required to take one AM session and one PM session.

## Culinary Arts Academy+

The Culinary Arts course is aligned with the National Restaurant Foundation ProStart® curriculum. Students study the service industry as it relates to travel and tourism, hospitality, hotels, and culinary skills. Students are introduced to marketing, accounting, food cost controls, customer relations, and restaurant and food service. Students learn the fundamentals of food production, preparation and dining room service. Students prepare and serve breakfasts, lunches and banquets in a commercial kitchen and dining room.

## Dental Assisting

Dental Assisting is a two year class designated to prepare students for employment as a chair side dental assistant. Students will be prepared to sit for the Dental Assisting National Boards. First year students will learn and apply the numerous skills needed by dental assistants. Second year students who meet all eligibility requirements will participate in supervised, work-based learning opportunities including shadowing co-ops. Students will focus on real-world experiences at sites such as dental clinics, private practices, and specialty offices. The hours accrued can be used towards NYS Dental Assisting Licensing.

## Engineering & Metal Fabrication Academy+

Students will learn to create industry-specific metal and plastic products. The creation process includes elements of design/function, blueprint creation and reading, and machining and welding technologies. Course completers will be able to operate machining and welding tools. Students will learn to use various design processes including leading edge software and technologies. Upon completion, students will have a global understanding of the designing and production process of metal/plastic products. Specifically, students will understand and be able to fabricate metal and plastic products used in a wide variety of industries.

## Health & Exercise Science - 2 year course

The Personal Fitness Training class has been revised from a one year to a two year class focused on Health and Exercise Sciences. The additional time will support the overall program objectives that both prepare the students to take the National Strength and Conditioning Association (NSCA) Personal Trainer Certification Exam and provide a strong foundation to continue their studies in a post-secondary setting.

## Heavy Equipment Operation and Maintenance

Students learn the operation and maintenance of earth moving equipment. Students learn to operate and maintain bulldozers, excavators, front-end loaders and dump trucks. Students apply skills through the continued development of Pineway Ponds Park in the Town of Ogden. Students learn preventative maintenance and basic equipment repair, including welding and torch use.

## Laboratory Technician+

The Laboratory Technician class is designed for students who enjoy applied science within a laboratory environment. Scientific laboratory technicians are responsible for laboratory-based tasks, which include sampling, testing, measuring, recording and analyzing results in biological, chemical, physical and life sciences. They also provide all the required technical support to enable the laboratory to function effectively while adhering to correct procedures and health and safety guidelines. Scientific laboratory technicians carry out fundamental tests as part of a scientific team. These tests assist in the advancement and development of modern medicine and science. The work plays an important role in the foundation stages of research and development (R&D) and in scientific analysis and investigation.

## **Outdoor Power Sports Technology**

(Formerly Outdoor Power and Marine Technology)

Students learn to repair and maintain of recreational vehicles and service equipment, including: motorcycles, ATVs, snowmobiles, lawn machinery and personal watercraft. Students learn skills in marine propulsion maintenance, repair and rigging.

## **Residential & Industrial Electricity**

Students learn the fundamentals of electrical theory, residential wiring, and commercial wiring. Concepts include blueprint reading, industrial branch circuits, 3-phase motor controls, fire and security systems, process controls and programmable logic controllers. Students are involved in the construction of a modular home in conjunction with the Carpentry and Plumbing & Heating classes.

# Services and Trade Courses

## **Building Trades**

Students learn basic skills in carpentry, plumbing and electrical wiring. Students will learn basic safety, communication skills, and technical math as they relate to the field of building trades. Students apply their knowledge to various wood projects.

## **Food Service**

Food Service prepares students to serve under the supervision of chefs and other food service professionals. Instructional units include kitchen organization and operations, sanitation and quality control, basic food preparation and cooking skills, kitchen and kitchen equipment maintenance and quantity food measurement and monitoring. Students apply skills to prepare, set-up and deliver food items for school functions and short order services.

## **Personal Services**

Students learn workplace skills that are reinforced by the application of services provided to various classes and departments. Through activities in the classroom and supervised worksite experiences students are introduced to the basic elements of service occupations (housekeeping, kitchen and dining services, stockroom and laundry services).





**Gates Chili High School • 1 Spartan Way • Rochester, NY 14624**  
**585.247.5050 • [www.gateschili.org](http://www.gateschili.org)**